



RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI

12/17/2020

MiTek USA, Inc.  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017  
314-434-1200

Re: 2531735  
Summit/15 Woodside

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

Pages or sheets covered by this seal: I43736320 thru I43736407

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



November 23, 2020

Johnson, Andrew ,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 2531735	Truss A1	Truss Type Half Hip Girder	Qty 1	Ply 2	Summit/15 Woodside Job Reference (optional)	143736320
----------------	-------------	-------------------------------	----------	----------	--	-----------

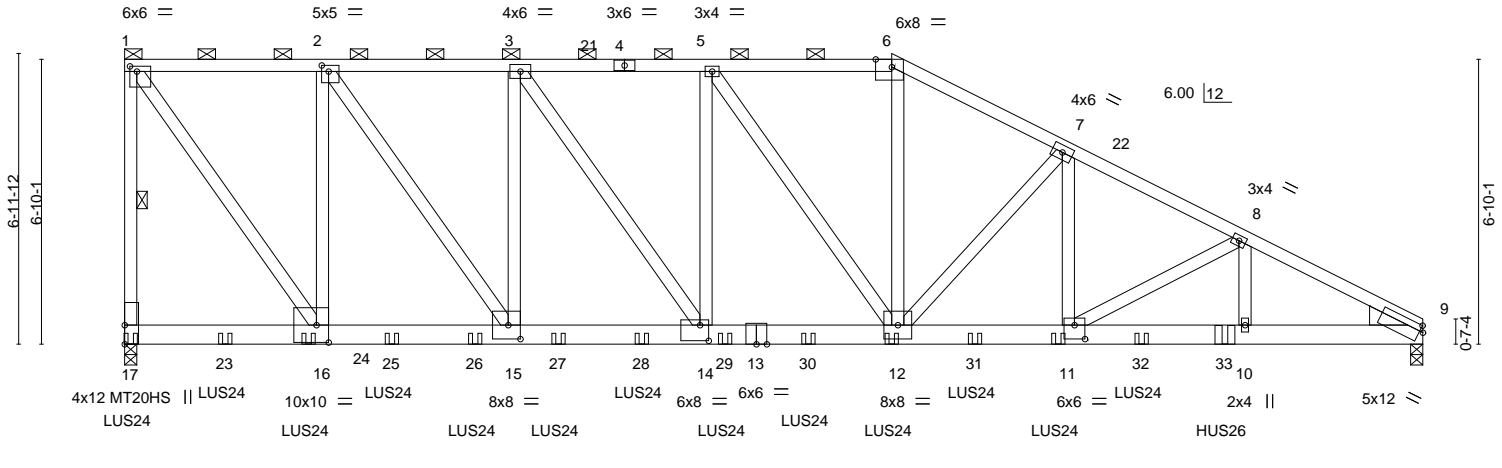
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:37 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-H9HYofzU4cadDi4x54jrOA4H2eN4gk?SRPenGPYgKJO

4-9-0	9-4-4	13-11-8	18-5-0	22-7-14	26-10-13	31-2-0
4-9-0	4-7-4	4-7-4	4-5-8	4-2-14	4-2-14	4-3-3

Scale = 1:55.3



<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>												
Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [2:0-2-0,0-1-12], [6:0-4-10,Edge], [9:0-1-0,0-1-12], [11:0-3-0,0-4-0], [14:0-2-8,0-4-8], [15:0-3-8,0-4-0], [16:0-3-8,0-5-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.22	12-14	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.43	12-14	>857	180	MT20HS	148/108
TCDL	20.0	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.08	9	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 400 lb	FT = 20%
BCDL	10.0											

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
6-9: 2x4 SPF 1650F 1.5E  
BOT CHORD 2x6 SP 2400F 2.0E  
WEBS 2x4 SPF No.2 \*Except\*  
1-16,2-15,3-14,5-12: 2x4 SPF 1650F 1.5E

#### WEDGE

Right: 2x6 SP No.2

#### REACTIONS.

(size) 17=0-3-8, 9=0-3-8  
Max Horz 17=-201(LC 10)  
Max Uplift 17=-681(LC 8), 9=-495(LC 13)  
Max Grav 17=8221(LC 32), 9=6825(LC 33)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-17=-7072/588, 1-2=-4888/421, 2-3=-7928/635, 3-5=-9273/735, 5-6=-8816/701,  
6-7=-9934/775, 7-8=-11882/897, 8-9=-13067/976  
BOT CHORD 15-16=-368/4888, 14-15=-582/7928, 12-14=-657/9273, 11-12=-713/10571,  
10-11=-829/11535, 9-10=-829/11535  
WEBS 1-16=-690/8374, 2-16=-4864/438, 2-15=-438/5241, 3-15=-2434/227, 3-14=-197/2414,  
5-14=-335/248, 5-12=-795/187, 6-12=-298/4048, 7-12=-2787/252, 7-11=-178/2532,  
8-11=-1102/138, 8-10=-103/764

#### 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 0-4-0 oc.  
Bottom chords connected as follows: 2x6 - 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=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 681 lb uplift at joint 17 and 495 lb uplift at joint 9.

Continued on page 2



November 23, 2020

**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/TPH 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	Summit/15 Woodside	I43736320
2531735	A1	Half Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:38 2020 Page 2  
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-mMrw0?\_6rwiUqsf7foE4wNdSo2jJPBFcg3OKoryGKJN

- NOTES-**
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 13) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 4-0-0 oc max. starting at 0-1-12 from the left end to 24-5-0 to connect truss(es) to back face of bottom chord.
  - 14) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 22-5-0 from the left end to connect truss(es) to back face of bottom chord.
  - 15) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 26-5-0 from the left end to connect truss(es) to back face of bottom chord.
  - 16) Fill all nail holes where hanger is in contact with lumber.

- LOAD CASE(S)** Standard
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
    - Uniform Loads (plf)
      - Vert: 1-6=-80, 6-9=-80, 17-18=-20
    - Concentrated Loads (lb)
      - Vert: 17=-776(B) 12=-769(B) 11=-662(B) 23=-769(B) 24=-769(B) 25=-769(B) 26=-769(B) 27=-769(B) 28=-769(B) 29=-769(B) 30=-769(B) 31=-744(B) 32=-746(B) 33=-1372(B)

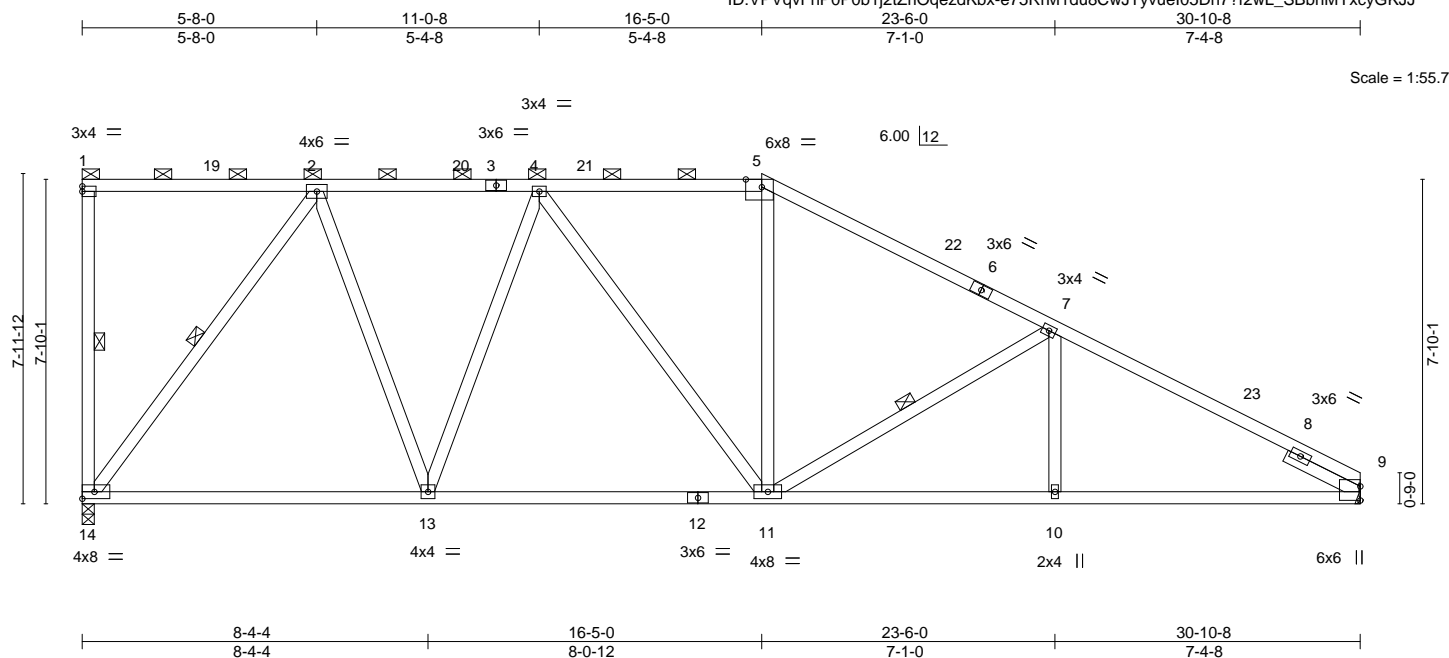


Plate Offsets (X,Y)-- [5:0-4-10,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES GRIP</b>	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.12 13-14 >999 240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.26 10-11 >999 180		
TCDL	20.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.10 9 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 143 lb	FT = 20%
BCDL	10.0								

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 5-6: 2x4 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-14 max.): 1-5.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 1-14, 2-14, 7-11
SLIDER	Right 2x4 SPF No.2 2-0-0		

**REACTIONS.** (size) 14=0-3-8, 9=Mechanical  
 Max Horz 14=-233(LC 14)  
 Max Uplift 14=-106(LC 12), 9=-48(LC 17)  
 Max Grav 14=1936(LC 36), 9=1811(LC 37)

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

TOP CHORD	1-14=-293/63, 2-4=-1474/250, 4-5=-1752/302, 5-7=-2101/301, 7-9=-2963/322
BOT CHORD	13-14=-20/1170, 11-13=-69/1717, 10-11=-205/2520, 9-10=-205/2520
WEBS	2-14=-1942/259, 2-13=-80/917, 4-13=-733/169, 4-11=-89/496, 5-11=-2/387, 7-11=-985/163

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 16-5-0, Exterior(2R) 16-5-0 to 20-7-15, Interior(1) 20-7-15 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 14 and 48 lb uplift at joint 9.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020



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 BCS1 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	Summit/15 Woodside	I43736322
2531735	A3	Roof Special	1	1		
Job Reference (optional)						

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:45 2020 Page 1

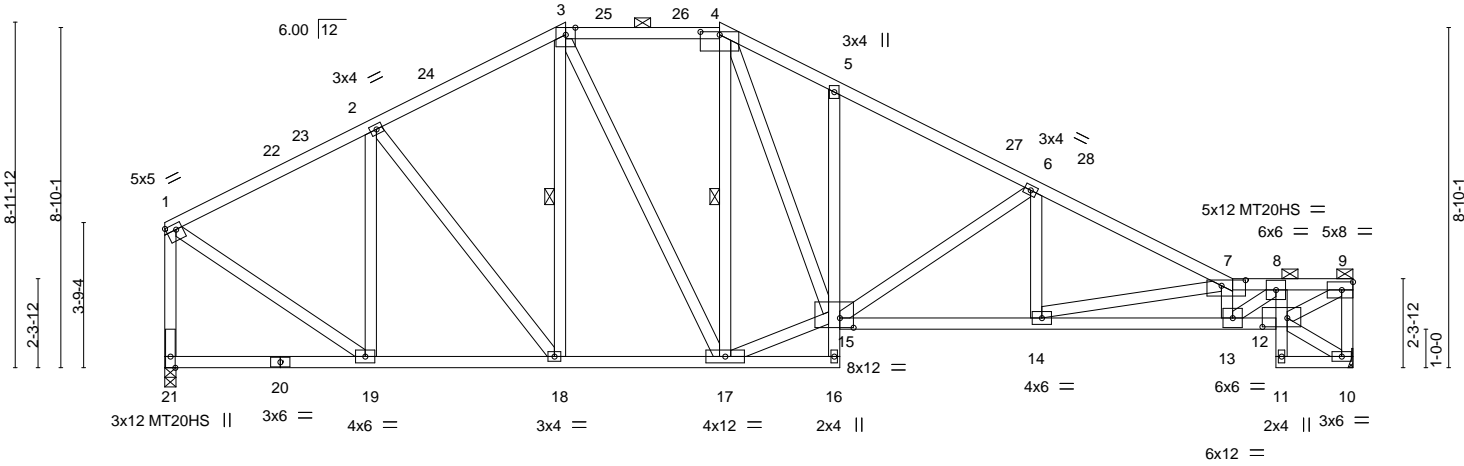
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-2imZUO3VB3aVAXhUZmsjjsPfmS3DYLzdHeaCYxyGKJG

5-4-4	10-5-0	14-5-0	17-6-8	22-7-12	27-9-0	28-10-8	30-10-8
5-4-4	5-0-12	4-0-0	3-1-8	5-1-4	5-1-4	1-1-8	2-0-0

6x6 =

6x12 =

Scale = 1:59.9



		5-4-4		10-5-0		14-5-0		17-6-8		22-7-12		27-9-0		28-10-8		30-10-8	
		5-4-4		5-0-12		4-0-0		3-1-8		5-1-4		5-1-4		1-1-8		2-0-0	
Plate Offsets (X,Y)--		[1:Edge,0-1-12], [4:0-6-0,0-0-15], [7:0-7-8,0-1-12], [12:0-7-12,0-2-12], [15:0-4-4,0-3-0]															
LOADING (psf)		SPACING- 2-0-0				CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP			
TCLL (roof)	25.0	Plate Grip DOL 1.15				TC	0.73	Vert(LL)	-0.21	13-14	>999	240	MT20	197/144			
Snow (Pf)	20.0	Lumber DOL 1.15				BC	0.94	Vert(CT)	-0.40	13-14	>913	180	MT20HS	148/108			
TCDL	20.0	Rep Stress Incr YES				WB	0.85	Horz(CT)	0.24	10	n/a	n/a					
BCLL	0.0	Code IRC2018/TPI2014				Matrix-AS											
BCDL	10.0																
														Weight: 175 lb FT = 20%			

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
12-15: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-3-15 max.): 3-4, 7-9.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-18, 4-17

#### REACTIONS.

(size) 10=Mechanical, 21=0-3-8  
Max Horz 21=-161(LC 12)  
Max Uplift 10=-59(LC 17), 21=-30(LC 16)  
Max Grav 10=1854(LC 42), 21=1985(LC 42)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-1724/245, 2-3=-1843/316, 3-4=-1700/328, 4-5=-2712/431, 5-6=-2827/377,  
6-7=-3893/423, 7-8=-5218/549, 8-9=-2873/317, 9-10=-1739/215, 1-21=-1930/243  
BOT CHORD 18-19=-179/1431, 17-18=-155/1521, 5-15=-432/120, 14-15=-367/3412, 13-14=-554/4979,  
12-13=-387/3221, 8-12=-1407/158  
WEBS 2-19=-840/155, 2-18=-31/299, 3-17=-67/464, 4-17=-850/99, 15-17=-141/1654,  
4-15=-211/1863, 6-15=-1232/152, 6-14=0/479, 7-14=-1598/190, 7-13=-1692/216,  
8-13=-246/2473, 9-12=-378/3248, 1-19=-184/1671

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-5-0, Exterior(2R) 10-5-0 to 13-5-0, Interior(1) 13-5-0 to 14-5-0, Exterior(2R) 14-5-0 to 17-5-9, Interior(1) 17-5-9 to 30-8-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 10 and 30 lb uplift at joint 21.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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/TPI 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	Summit/15 Woodside	143736323
2531735	A4	Roof Special	3	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:47 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-?4uKu45jhgDPFsrhBuBoHV1jglm0l2wky3JdpyGKJE

6-4-4	12-5-0	17-6-8	21-9-7	26-0-6	28-10-8	30-10-8
6-4-4	6-0-12	5-1-8	4-2-15	4-2-15	2-10-2	2-0-0

6x6 =

Scale = 1:66.1

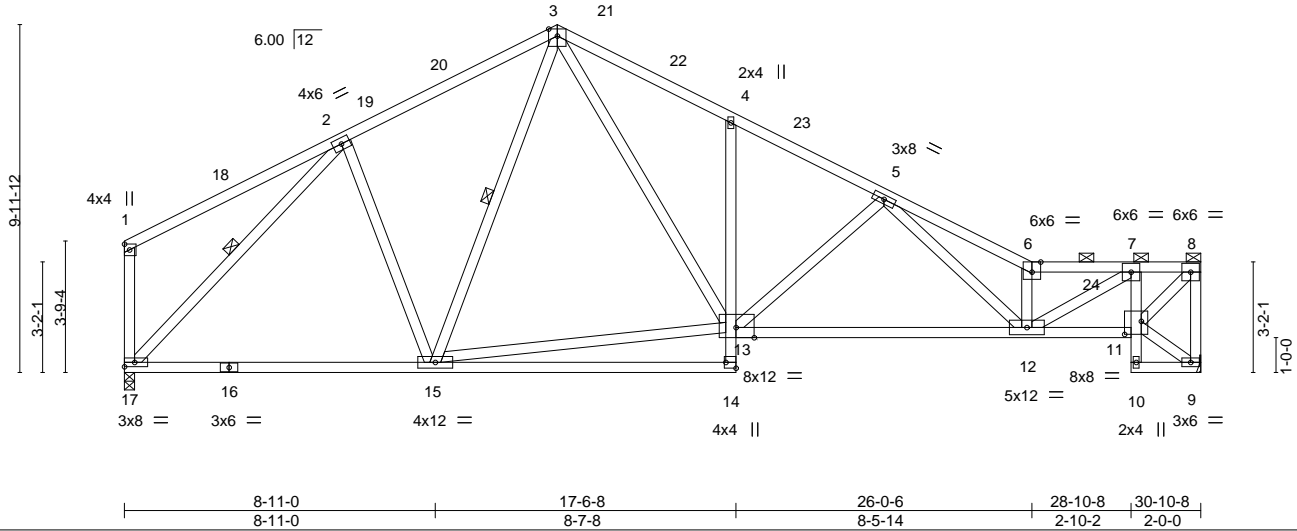


Plate Offsets (X,Y)-- [6:0-3-0,Edge], [11:0-5-12,0-4-8], [13:0-6-4,Edge], [14:Edge,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.61	Vert(LL)	-0.18	12-13	>999	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.88	Vert(CT)	-0.48	12-13	>768		
TCDL 20.0	Lumber DOL 1.15	WB 0.69	Horz(CT)	0.16	9	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014							

Weight: 164 lb FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-9-14 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-15, 2-17

**REACTIONS.** (size) 9=Mechanical, 17=0-3-8  
Max Horz 17=-170(LC 12)  
Max Uplift 9=-67(LC 17), 17=-39(LC 16)  
Max Grav 9=1682(LC 2), 17=1682(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1618/305, 3-4=-2588/420, 4-5=-2585/341, 5-6=-4242/450, 6-7=-3902/384, 7-8=-1619/186, 8-9=-1610/216, 1-17=-278/98  
BOT CHORD 15-17=-202/1296, 4-13=-570/142, 12-13=-354/2901, 11-12=-255/1730, 7-11=-1415/170  
WEBS 2-15=-52/269, 13-15=-143/1258, 3-13=-195/1742, 5-13=-936/144, 5-12=-90/1184, 6-12=-2132/258, 7-12=-213/2540, 8-11=-289/2217, 2-17=-1807/225

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 12-5-0, Exterior(2R) 12-5-0 to 15-5-0, Interior(1) 15-5-0 to 30-8-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 9 and 39 lb uplift at joint 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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	Summit/15 Woodside	143736324
2531735	A5	Roof Special	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:49 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIOeqzdKbx-xT04Jm60FI5wfY?FocwftiaMYTRxUBPDCGYPhiyGKJC

6-4-4	12-5-0	17-6-8	21-9-7	26-0-6	28-10-8	31-2-0
6-4-4	6-0-12	5-1-8	4-2-15	4-2-15	2-10-2	2-3-8

Scale = 1:65.9

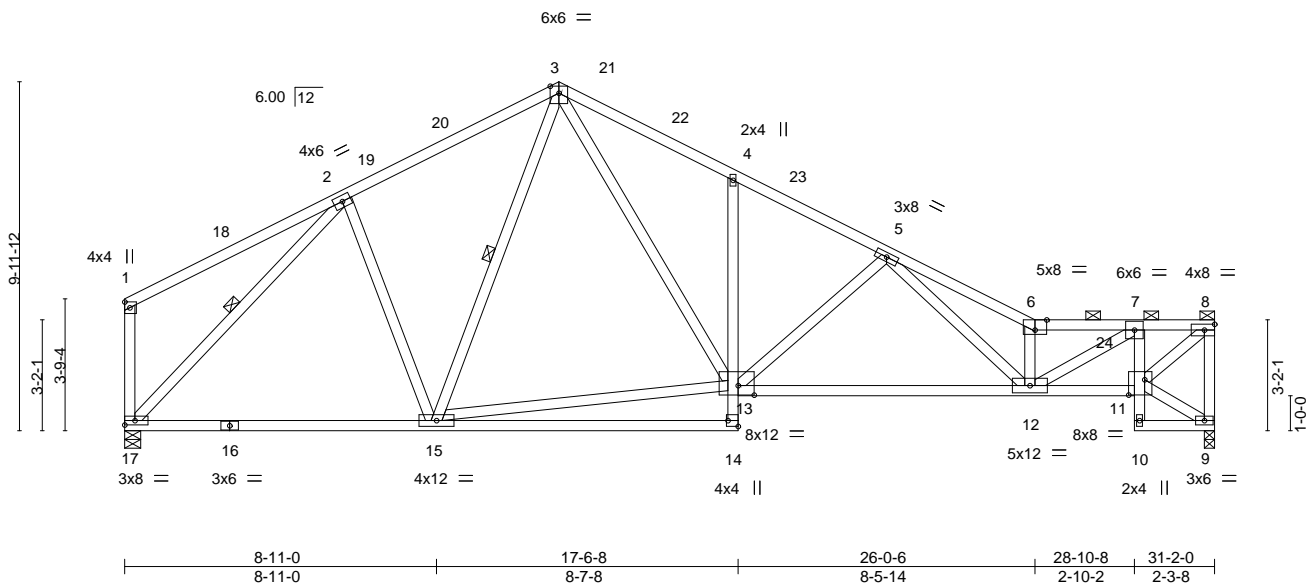


Plate Offsets (X,Y)-- [6:0-4-0,Edge], [11:0-5-8,0-5-4], [13:0-5-8,0-3-4], [14:Edge,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.66	Vert(LL)	-0.19	12-13	>999	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.89	Vert(CT)	-0.51	12-13	>732		
TCDL 20.0	Lumber DOL 1.15	WB 0.70	Horz(CT)	0.17	9	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014							

Weight: 165 lb FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-8-12 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-15, 2-17

**REACTIONS.** (size) 9=0-3-8, 17=0-5-8  
Max Horz 17=-170(LC 12)  
Max Uplift 9=-68(LC 17), 17=-39(LC 16)  
Max Grav 9=1698(LC 2), 17=1698(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1638/307, 3-4=-2638/426, 4-5=-2635/347, 5-6=-4472/475, 6-7=-4116/407, 7-8=-1876/215, 8-9=-1628/217, 1-17=-278/98  
BOT CHORD 15-17=-203/1311, 4-13=-569/142, 12-13=-363/2987, 11-12=-282/1987, 7-11=-1400/169  
WEBS 2-15=-47/276, 13-15=-145/1278, 3-13=-199/1788, 5-13=-993/150, 5-12=-106/1353, 6-12=-2233/268, 7-12=-207/2490, 8-11=-308/2409, 2-17=-1829/227

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 12-5-0, Exterior(2R) 12-5-0 to 15-5-0, Interior(1) 15-5-0 to 31-0-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 9 and 39 lb uplift at joint 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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	Summit/15 Woodside	I43736325
2531735	A6	Roof Special	3	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:51 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-ts8rkR8GnvLeus8dw1z7y7fjEH6Uy4bWfa1WmbyGKJA

2-5-8	6-11-8	11-5-8	12-5-0	17-1-4	17-6-8	21-9-7	26-0-6	28-10-8	31-2-0
2-5-8	4-6-0	4-6-0	0-11-8	4-8-4	0-5-4	4-2-15	4-2-15	2-10-2	2-3-8

Scale: 3/16"=1'

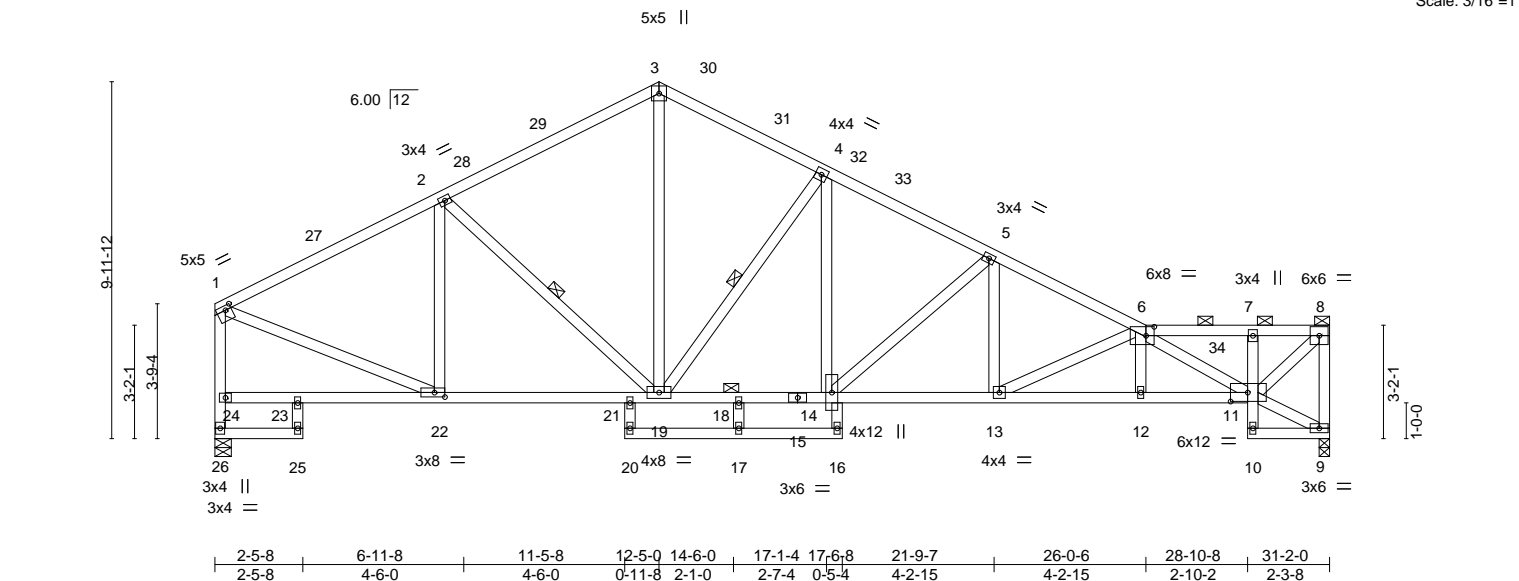


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [6:0-2-12,0-3-0], [11:0-5-12,0-3-0], [22:0-3-8,0-1-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b> <b>GRIP</b>	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.16 13-14 >999 240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.33 13-14 >999 180		
TCDL	20.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.19 9 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 171 lb	FT = 20%
BCDL	10.0								

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-4-3 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 2-19, 4-19  
JOINTS 1 Brace at Jt(s): 8, 18

**REACTIONS.** (size) 9=0-3-8, 26=0-5-8  
Max Horz 26=-170(LC 12)  
Max Uplift 9=-67(LC 17), 26=-38(LC 16)  
Max Grav 9=1701(LC 2), 26=1701(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-1855/272, 2-3=-1785/302, 3-4=-1756/321, 4-5=-2583/343, 5-6=-3460/379, 6-7=-1748/188, 7-8=-1667/180, 8-9=-1642/210, 24-26=-1665/201, 1-24=-1632/211  
BOT CHORD 21-22=-235/1561, 19-21=-216/1531, 18-19=-226/2164, 14-18=-226/2164, 13-14=-350/3035, 12-13=-457/3977, 11-12=-460/3975, 7-11=-338/64  
WEBS 1-22=-157/1585, 2-22=-488/148, 3-19=-140/1067, 5-14=-1100/138, 5-13=-15/541, 6-13=-1048/125, 6-11=-2631/263, 8-11=-279/2265, 4-14=-49/796, 4-19=-1256/167

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 12-5-0, Exterior(2R) 12-5-0 to 15-5-0, Interior(1) 15-5-0 to 31-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 9 and 38 lb uplift at joint 26.
  - 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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/TPI 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	Summit/15 Woodside	143736326
2531735	A7	Roof Special	1	1		
Job Reference (optional)						

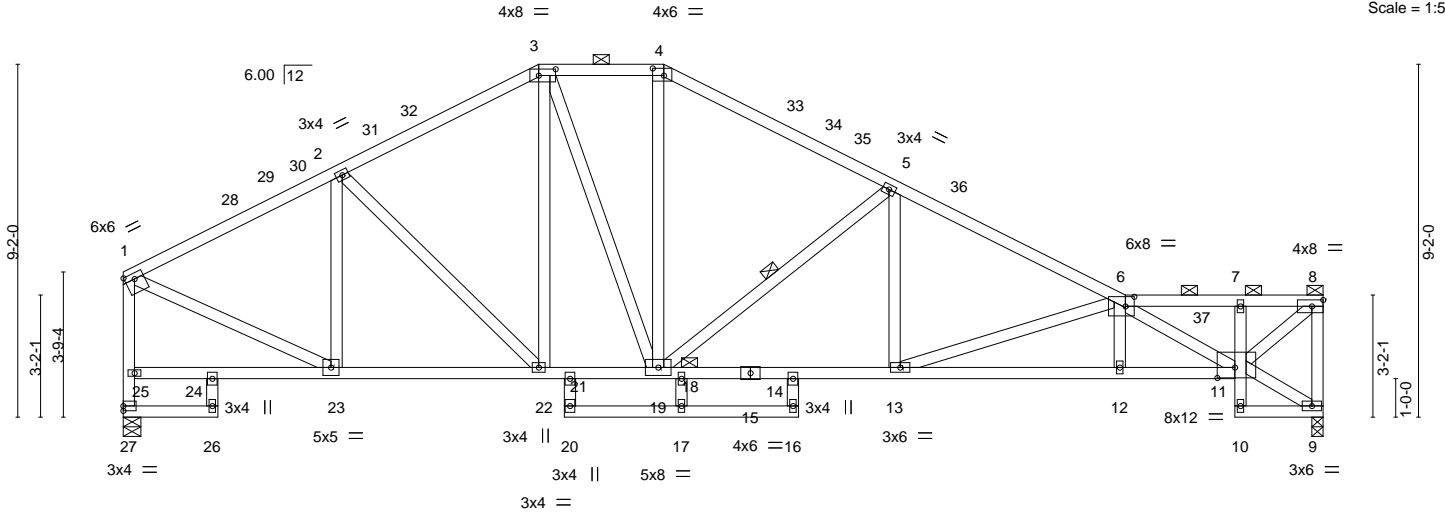
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:54 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-IRpZMTA84qjDlJtCb9WqalHbcUak9PYyLYGAMwyGKJ7

2-5-8	5-6-8	10-9-8	11-5-8	14-0-8	17-6-8	20-0-7	26-0-6	28-10-8	31-2-0
2-5-8	3-1-0	5-3-0	0-8-0	2-7-0	3-6-0	2-5-15	5-11-15	2-10-2	2-3-8

Scale = 1:59.8



2-5-8	5-6-8	10-9-8	11-5-8	14-0-8	14-6-0	17-6-8	20-0-7	26-0-6	28-10-8	31-2-0
2-5-8	3-1-0	5-3-0	0-8-0	2-7-0	0-5-8	3-0-8	2-5-15	5-11-15	2-10-2	2-3-8

Plate Offsets (X,Y)-- [1:Edge,0-1-12], [3:0-5-4,0-2-0], [4:0-3-8,0-2-4], [6:0-2-12,0-3-0], [11:0-5-8,0-3-4]

<b>LOADING</b> (psf)		<b>SPACING-</b>		2-0-0		<b>CSI.</b>		<b>DEFL.</b>		in (loc)		I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.18	12-13	>999	240				MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.37	12-13	>999	180					
TCDL	20.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.20	9	n/a	n/a					
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS											
BCDL	10.0														
Weight: 174 lb														FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2 \*Except\*  
 11-15: 2x4 SPF 1650F 1.5E  
 WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-11-15 max.): 3-4, 6-8.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 5-19  
 JOINTS 1 Brace at Jt(s): 8, 18

#### REACTIONS.

(size) 9=0-3-8, 27=0-5-8  
 Max Horz 27=-162(LC 14)  
 Max Uplift 9=-64(LC 17), 27=-31(LC 16)  
 Max Grav 9=1774(LC 42), 27=2018(LC 42)

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

TOP CHORD 1-2=-2099/297, 2-3=-2097/342, 3-4=-1872/347, 4-5=-2272/357, 5-6=-3455/398,  
 6-7=-1829/202, 7-8=-1754/195, 8-9=-1716/226, 25-27=-1983/229, 1-25=-1953/239  
 BOT CHORD 22-23=-263/1761, 21-22=-211/1730, 19-21=-198/1609, 18-19=-337/2851,  
 14-18=-337/2851, 13-14=-351/2972, 12-13=-501/4268, 11-12=-505/4265, 7-11=-320/54  
 WEBS 1-23=-164/1839, 2-23=-685/158, 5-19=-1415/188, 5-13=0/580, 6-13=-1358/157,  
 6-11=-2877/298, 8-11=-298/2383, 4-19=-57/527, 3-19=-71/456

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-9-8, Exterior(2E) 10-9-8 to 14-0-8, Exterior(2R) 14-0-8 to 17-0-8, Interior(1) 17-0-8 to 31-0-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 9 and 31 lb uplift at joint 27.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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/TPI 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	Summit/15 Woodside	143736327
2531735	A8	Roof Special	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

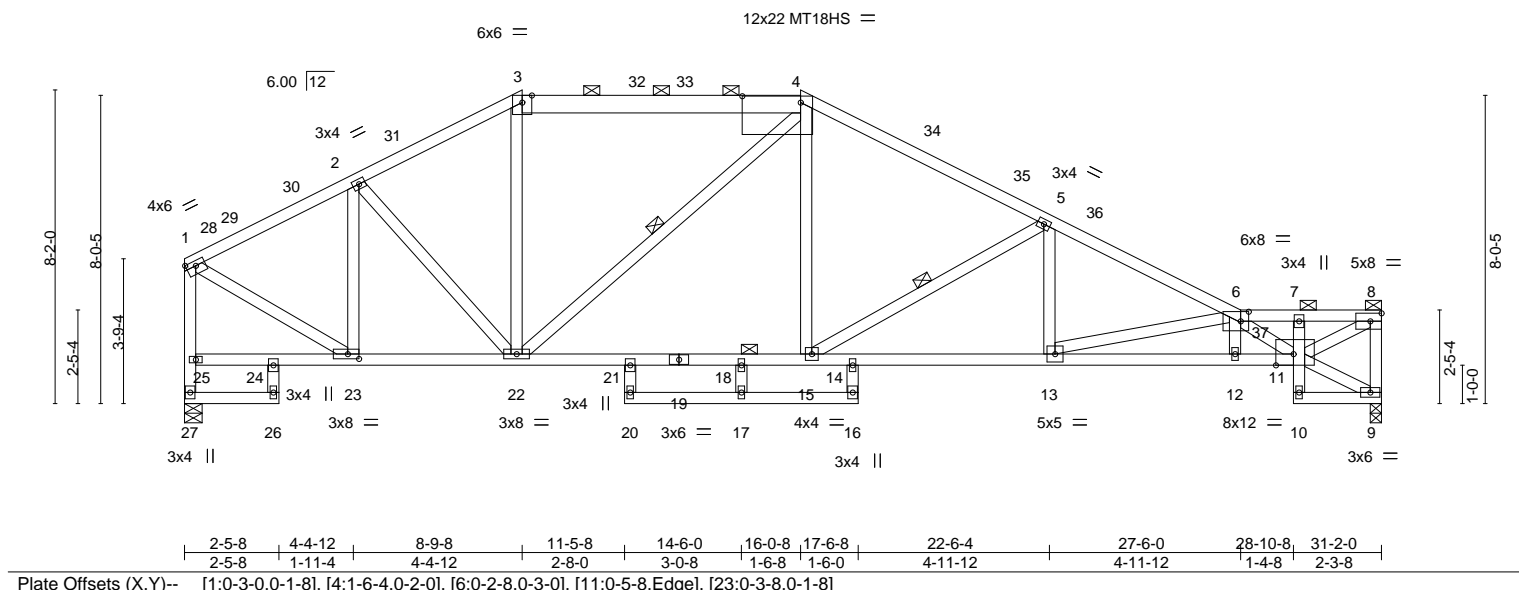
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:56 2020 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-Epxkn9CPbSzx\_d1biaYlfANY1lqfdLBFpslHROYGKJ5

Job Reference (optional)

2-5-8	4-4-12	8-9-8	11-5-8	16-0-8	17-6-8	22-6-4	27-6-0	28-10-8	31-2-0
2-5-8	1-11-4	4-4-12	2-8-0	4-7-0	1-6-0	4-11-12	4-11-12	1-4-8	2-3-8

Scale = 1:60.0



<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.19	12-13	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC 0.89	Vert(CT)	-0.39	12-13	>949	180	MT18HS	197/144
TCDL	20.0	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.24	9	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 167 lb	FT = 20%
BCDL	10.0										

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
3-4: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
11-19: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-2 max.): 3-4, 6-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 4-22, 5-15  
JOINTS 1 Brace at Jt(s): 8, 18

#### REACTIONS.

(size) 9=0-3-8, 27=0-5-8  
Max Horz 27=-152(LC 12)  
Max Uplift 9=-55(LC 17), 27=-21(LC 16)  
Max Grav 9=1752(LC 42), 27=1865(LC 42)

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

TOP CHORD 1-2=-1749/271, 2-3=-1930/326, 3-4=-1619/328, 4-5=-2482/365, 5-6=-3749/432,  
6-7=-2924/334, 7-8=-2709/312, 8-9=-1655/216, 25-27=-1832/227, 1-25=-1806/239  
BOT CHORD 22-23=-215/1472, 21-22=-224/2048, 18-21=-218/1973, 15-18=-218/1973,  
14-15=-373/3221, 13-14=-380/3296, 12-13=-569/4891, 11-12=-575/4896  
WEBS 3-22=0/365, 6-11=-2469/256, 8-11=-376/3082, 2-22=-50/421, 2-23=-787/163,  
1-23=-172/1638, 4-15=-28/826, 4-22=-621/88, 6-13=-1637/194, 5-13=-2/527,  
5-15=-1417/186

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-9-8, Exterior(2R) 8-9-8 to 11-9-8, Interior(1) 11-9-8 to 16-0-8, Exterior(2R) 16-0-8 to 19-0-8, Interior(1) 19-0-8 to 31-0-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 9 and 21 lb uplift at joint 27.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

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



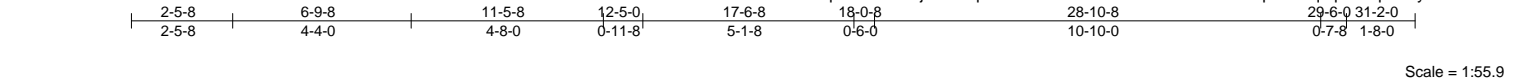
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736328
2531735	A9	Roof Special	1	1		
Job Reference (optional)						

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:59 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-eOdsQAEHuNLWr5mAOi6?Hp?2dVqvqfhVqzx27yGKJ2



Scale = 1:55.9

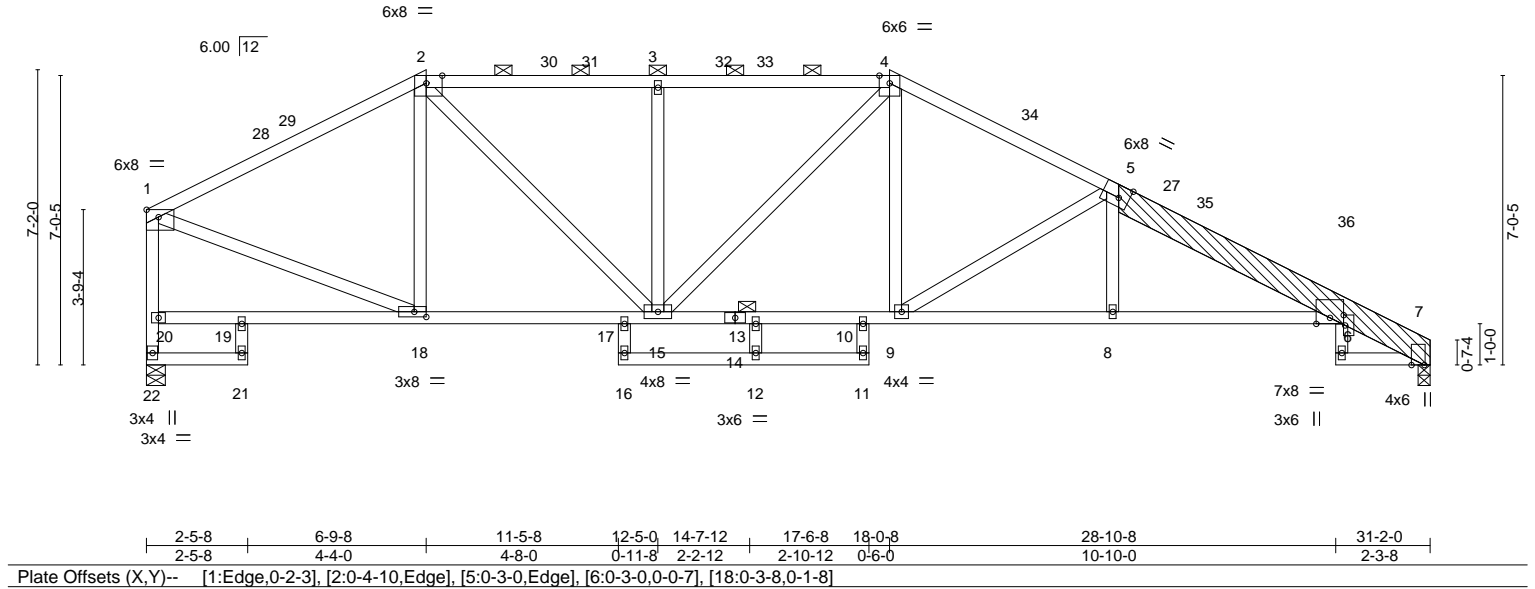


Plate Offsets (X,Y)--		[1:Edge,0-2-3], [2:0-4-10,Edge], [5:0-3-0,Edge], [6:0-3-0,0-0-7], [18:0-3-8,0-1-8]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL (roof)	25.0	Plate Grip DOL	1.15
Snow (Pf)	20.0	Lumber DOL	1.15
TCDL	20.0	Rep Stress Incr	YES
BCLL	0.0	Code	IRC2018/TPI2014
BCDL	10.0		
		<b>CSL</b>	
		TC	0.75
		BC	0.92
		WB	0.90
		Matrix-AS	
		<b>DEFL.</b>	
		Vert(LL)	-0.16 8-26 >999 240
		Vert(CT)	-0.34 8-9 >999 180
		Horz(CT)	0.20 7 n/a n/a
		<b>PLATES</b>	MT20
		<b>GRIP</b>	197/144
		Weight:	189 lb
		FT =	20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2 *Except* 1-2: 2x4 SPF 1650F 1.5E, 5-7: 2x8 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-0-7 max.): 2-4.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	JOINTS	1 Brace at Jt(s): 13
OTHERS	2x8 SP 2400F 2.0E		
LBR SCAB	5-7 2x8 SP 2400F 2.0E one side		

<b>REACTIONS.</b>	(size) 22=0-5-8, 7=0-3-8 Max Horz 22=-144(LC 14) Max Uplift 22=-8(LC 16), 7=-42(LC 17) Max Grav 22=1712(LC 41), 7=1877(LC 41)
-------------------	--

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-1875/274, 2-3=-2315/364, 3-4=-2315/364, 4-5=-2626/377, 5-6=-3691/420, 6-7=-826/109, 20-22=-1674/215, 1-20=-1635/229
BOT CHORD	17-18=-86/1584, 15-17=-84/1513, 13-15=-152/2169, 10-13=-152/2169, 9-10=-154/2238, 8-9=-297/3397, 6-8=-299/3390
WEBS	1-18=-171/1601, 2-18=-449/148, 4-9=-41/792, 5-9=-1388/182, 3-15=-797/118, 2-15=-129/1043

- NOTES-**
- Attached 8-8-11 scab 5 to 7, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-15 from end at joint 5, nail 2 row(s) at 7" o.c. for 2-10-14; starting at 3-11-3 from end at joint 5, nail 2 row(s) at 3" o.c. for 3-1-9.
  - 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-9-8, Exterior(2R) 6-9-8 to 9-9-8, Interior(1) 9-9-8 to 18-0-8, Exterior(2R) 18-0-8 to 21-0-8, Interior(1) 21-0-8 to 31-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - 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.
  - Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 22 and 42 lb uplift at joint 7.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23, 2020

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

**MiTek**  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736328
2531735	A9	Roof Special	1	1	Job Reference (optional)	

- NOTES-**
- 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736329
2531735	A10	Hip Girder	1	2	Job Reference (optional)	

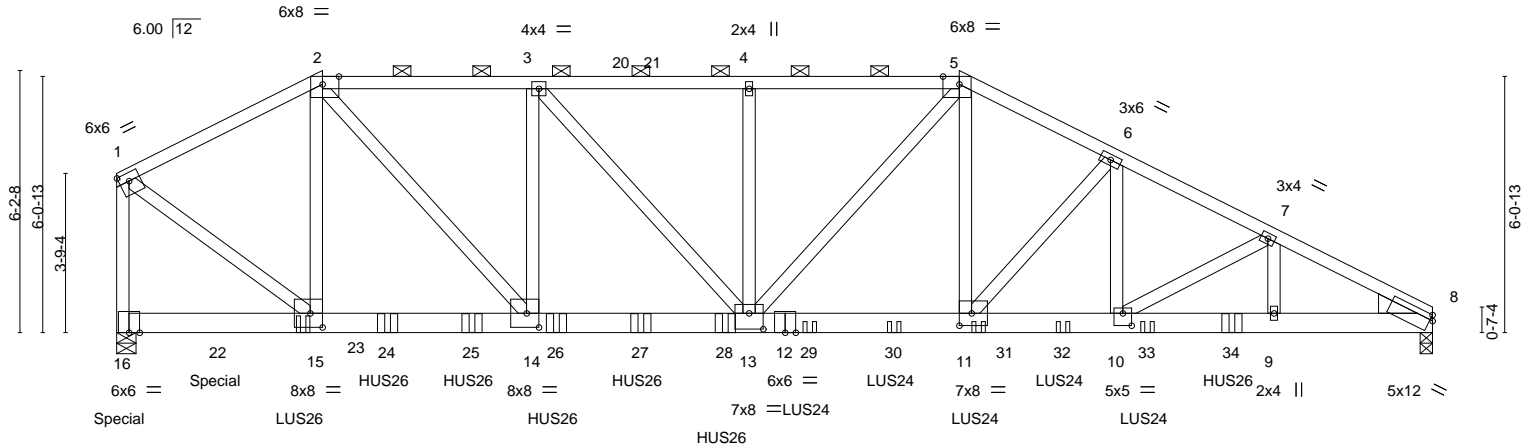
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:40 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-ikzgQh?MNXYC4ApWmDGY?oiqArPmt52u7NtRtjyGKJL

4-10-8	9-10-4	14-11-12	19-11-8	23-8-4	27-4-15	31-2-0
4-10-8	4-11-12	5-1-8	4-11-12	3-8-12	3-8-12	3-9-1

Scale = 1:54.6



		4-10-8		9-10-4		14-11-12		19-11-8		23-8-4		27-4-15		31-2-0	
		4-10-8		4-11-12		5-1-8		4-11-12		3-8-12		3-8-12		3-9-1	
Plate Offsets (X,Y)-- [1:Edge,0-2-4], [2:0-4-10,Edge], [5:0-4-10,Edge], [8:Edge,0-1-8], [10:0-2-8,0-3-8], [11:0-3-8,0-3-8], [13:0-4-0,0-4-8], [14:0-3-8,0-4-0], [15:0-3-8,0-4-0]															
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0				<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>		<b>GRIP</b>	
TCLL (roof)	25.0	Plate Grip DOL 1.15				TC	0.70	Vert(LL)	-0.22	11-13	>999	240	MT20	197/144	
Snow (Pf)	20.0	Lumber DOL 1.15				BC	0.64	Vert(CT)	-0.41	11-13	>898	180			
TCDL	20.0	Rep Stress Incr NO				WB	0.77	Horz(CT)	0.08	8	n/a	n/a			
BCLL	0.0	Code IRC2018/TPI2014				Matrix-MS									
BCDL	10.0											Weight: 358 lb FT = 20%			

#### LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E \*Except\*  
1-2: 2x4 SPF No.2  
BOT CHORD 2x6 SPF 2100F 1.8E \*Except\*  
8-12: 2x6 SP 2400F 2.0E  
WEBS 2x4 SPF No.2  
WEDGE  
Right: 2x6 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-6 max.): 2-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 8=0-3-8, 16=0-5-8  
Max Horz 16=-131(LC 10)  
Max Uplift 8=-419(LC 13), 16=-464(LC 9)  
Max Grav 8=6296(LC 36), 16=7249(LC 35)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-5669/438, 2-3=-8607/662, 3-4=-9899/765, 4-5=-9903/766, 5-6=-9975/757,  
6-7=-11319/815, 7-8=-11857/813, 1-16=-6338/451  
BOT CHORD 14-15=-361/5103, 13-14=-615/8603, 11-13=-578/8884, 10-11=-666/10078,  
9-10=-688/10461, 8-9=-688/10461  
WEBS 2-15=-1897/183, 2-14=-445/5344, 3-14=-2179/207, 3-13=-158/1958, 4-13=-742/89,  
5-13=-178/1550, 5-11=-232/3153, 6-11=-2077/181, 6-10=-116/1862, 7-10=-439/60,  
7-9=-108/252, 1-15=-456/6267

#### 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 0-4-0 oc.  
Bottom chords connected as follows: 2x6 - 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=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Bearing at joint(s) 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 419 lb uplift at joint 8 and 464 lb uplift at joint 16.

Continued on Page 2



November 23, 2020

**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/TPI 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	Summit/15 Woodside
2531735	A10	Hip Girder	1	2	I43736329
					Job Reference (optional)

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:32:41 2020 Page 2
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-AwX3e00\_8r43hKNiKwnnY0F?wFI?cYH2M1c\_PAYGKJK

- NOTES-**
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent at 4-5-0 from the left end to connect truss(es) to front face of bottom chord.
  - Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 12-0-0 oc max. starting at 6-5-0 from the left end to 26-5-0 to connect truss(es) to front face of bottom chord.
  - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 4-0-0 oc max. starting at 16-5-0 from the left end to 24-5-0 to connect truss(es) to front face of bottom chord.
  - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent at 20-5-0 from the left end to connect truss(es) to front face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 631 lb down and 31 lb up at 0-1-12, and 624 lb down and 38 lb up at 2-5-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-80, 2-5=-80, 5-8=-80, 16-17=-20
  - Concentrated Loads (lb)
    - Vert: 16=-631(F) 22=-624(F) 23=-732(F) 24=-687(F) 25=-687(F) 26=-687(F) 27=-687(F) 28=-687(F) 29=-687(F) 30=-687(F) 31=-732(F) 32=-611(F) 33=-620(F) 34=-1260(F)

Job 2531735	Truss B1	Truss Type Common	Qty 2	Ply 1	Summit/15 Woodside 143736330
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:00 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-6aEdWfVfgTNTEKMxQdEp0XBxvDsZF5rkUjVaZyGKJ1

-0-10-8 8-0-3 16-0-0 23-11-13 32-0-0  
0-10-8 8-0-3 7-11-13 7-11-13 8-0-3

Scale = 1:56.8

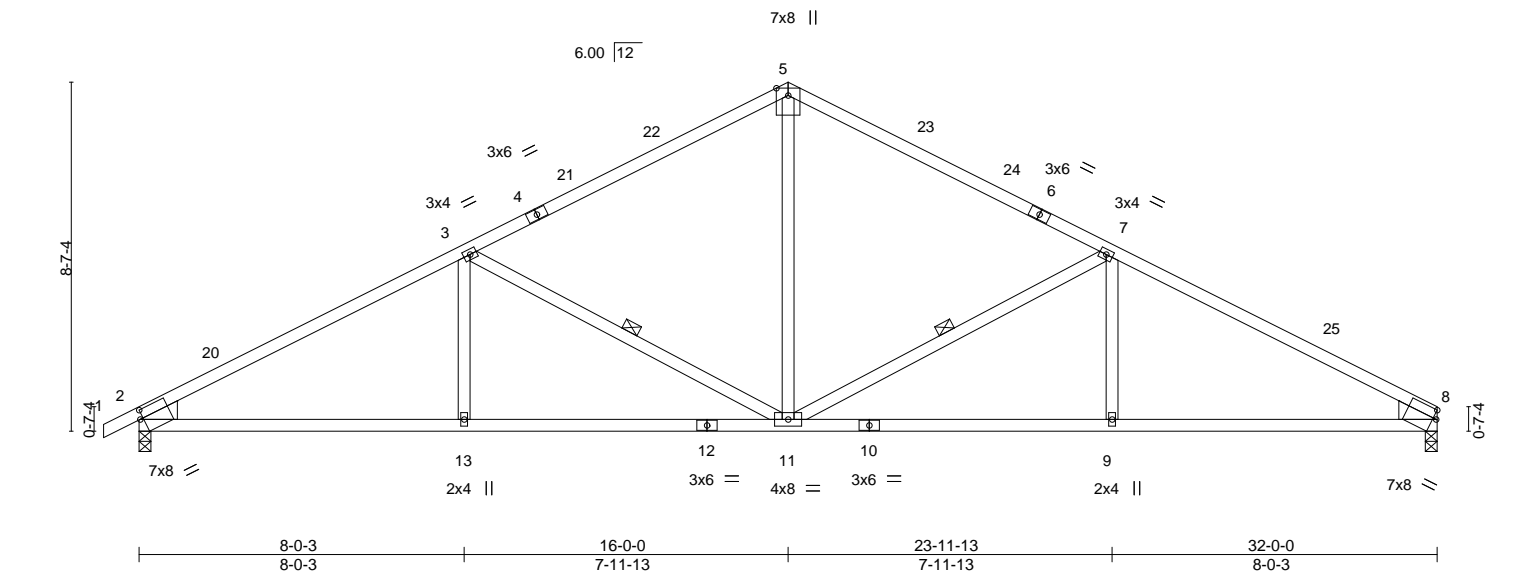


Plate Offsets (X,Y)--		[2:0-0-3,0-0-0], [2:0-4-9,0-2-1], [2:0-0-15,0-2-10], [8:0-0-3,0-0-0], [8:0-4-9,0-2-1], [8:Edge,0-2-10]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL (roof)	25.0	Plate Grip DOL	1.15
Snow (Pf)	20.0	Lumber DOL	1.15
TCDL	20.0	Rep Stress Incr	YES
BCLL	0.0	Code	IRC2018/TPI2014
BCDL	10.0		
		<b>CSL</b>	
		TC	0.86
		BC	0.74
		WB	0.38
		Matrix	AS
		<b>DEFL.</b>	
		Vert(LL)	-0.13 11-13 >999 240
		Vert(CT)	-0.35 11-13 >999 180
		Horz(CT)	0.12 8 n/a n/a
		<b>PLATES</b>	MT20
		<b>GRIP</b>	197/144
		Weight:	120 lb
		FT =	20%

#### LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E \*Except\*  
1-4,6-8: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x6 SPF No.2, Right: 2x6 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 7-11, 3-11

#### REACTIONS.

(size) 2=0-3-8, 8=0-3-8  
Max Horz 2=93(LC 13)  
Max Uplift 2=-65(LC 16), 8=-57(LC 17)  
Max Grav 2=1840(LC 2), 8=1759(LC 2)

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

TOP CHORD 2-3=-3018/351, 3-5=-2125/326, 5-7=-2125/328, 7-8=-3024/358  
BOT CHORD 2-13=-237/2569, 11-13=-237/2569, 9-11=-232/2575, 8-9=-232/2575  
WEBS 5-11=-98/1058, 7-11=-979/180, 7-9=0/300, 3-11=-972/179, 3-13=0/299

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 19-0-0, Interior(1) 19-0-0 to 32-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- The Fabrication Tolerance at joint 5 = 8%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 2 and 57 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23,2020

**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/TPI 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	Summit/15 Woodside	I43736331
2531735	B2	Hip	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:02 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-3zl?2CG9Blj4iYU13qfiuRcXvjuN13c8BoCbfSyGKJ?

-0-10-8	4-10-15	9-9-10	14-8-4	17-3-12	22-2-6	27-1-1	32-0-0
0-10-8	4-10-15	4-10-10	4-10-10	2-7-8	4-10-10	4-10-10	4-10-15

Scale = 1:56.2

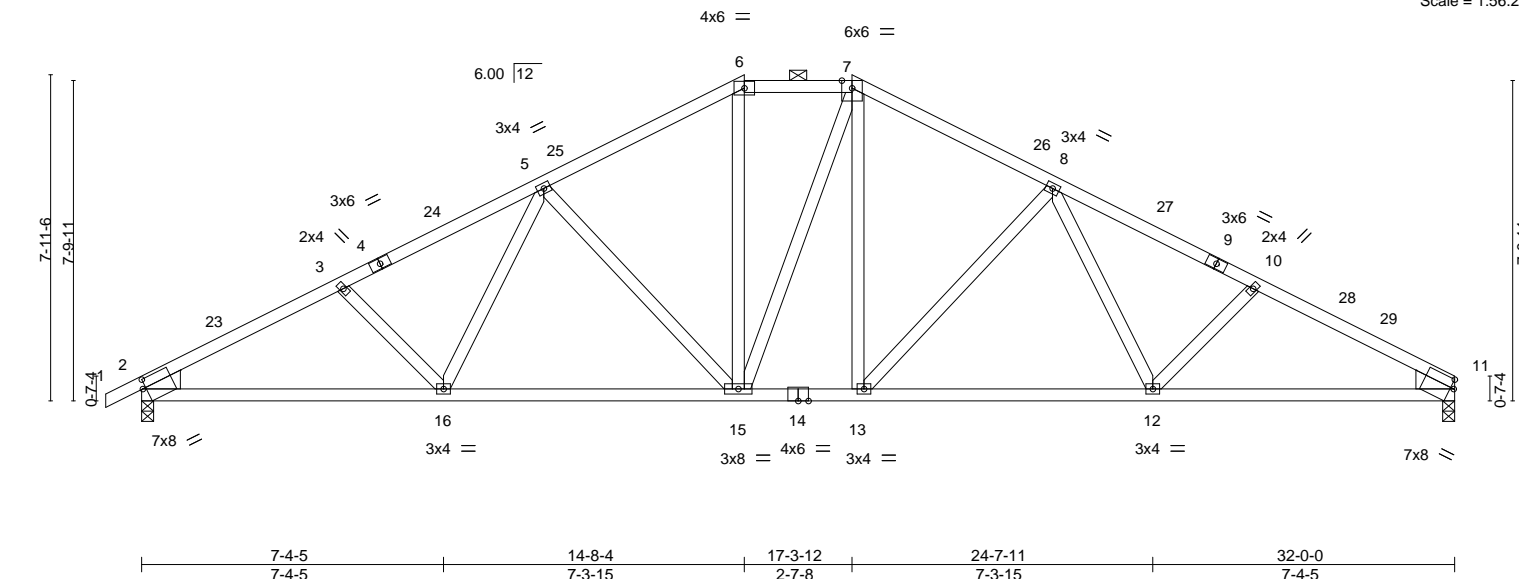


Plate Offsets (X,Y)--		[2:0-0-3,0-0-0], [2:0-4-9,0-2-1], [2:0-0-15,0-2-10], [11:0-0-3,0-0-0], [11:0-4-9,0-2-1], [11:Edge,0-2-10]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL (roof) 25.0	2-0-0	TC 0.87	in (loc) l/defl L/d
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.81	Vert(LL) -0.22 12-13 >999 240
TCDL 20.0	Lumber DOL 1.15	WB 0.76	Vert(CT) -0.43 12-13 >884 180
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.15 11 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		
		Weight: 143 lb FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF 1650F 1.5E  
 WEBS 2x4 SPF No.2  
 WEDGE  
 Left: 2x6 SPF No.2, Right: 2x6 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (3-9-0 max.): 6-7.  
 BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=85(LC 13)  
 Max Uplift 2=60(LC 16), 11=52(LC 17)  
 Max Grav 2=2154(LC 41), 11=2087(LC 41)

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

TOP CHORD 2-3=-3748/360, 3-5=-3413/359, 5-6=-2619/342, 6-7=-2208/335, 7-8=-2618/343,  
 8-10=-3450/366, 10-11=-3761/371  
 BOT CHORD 2-16=-270/3232, 15-16=-203/2809, 13-15=-98/2206, 12-13=-198/2813, 11-12=-271/3244  
 WEBS 3-16=-371/101, 5-16=-6/394, 5-15=-870/146, 6-15=-75/754, 7-13=-69/756,  
 8-13=-879/147, 8-12=-14/406, 10-12=-377/107

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-8-4, Exterior(2E) 14-8-4 to 17-3-12, Exterior(2R) 17-3-12 to 21-6-11, Interior(1) 21-6-11 to 32-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 2 and 52 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23,2020

**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	Summit/15 Woodside	143736332
2531735	B3	Hip	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:04 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-7MQlTuQjv\_oyse7AFiA\_sis3WYeVzOQe6hiiKyGKlz

-0-10-8	6-4-5	12-8-4	19-3-12	25-7-11	32-0-0
0-10-8	6-4-5	6-3-15	6-7-8	6-3-15	6-4-5

Scale = 1:54.7

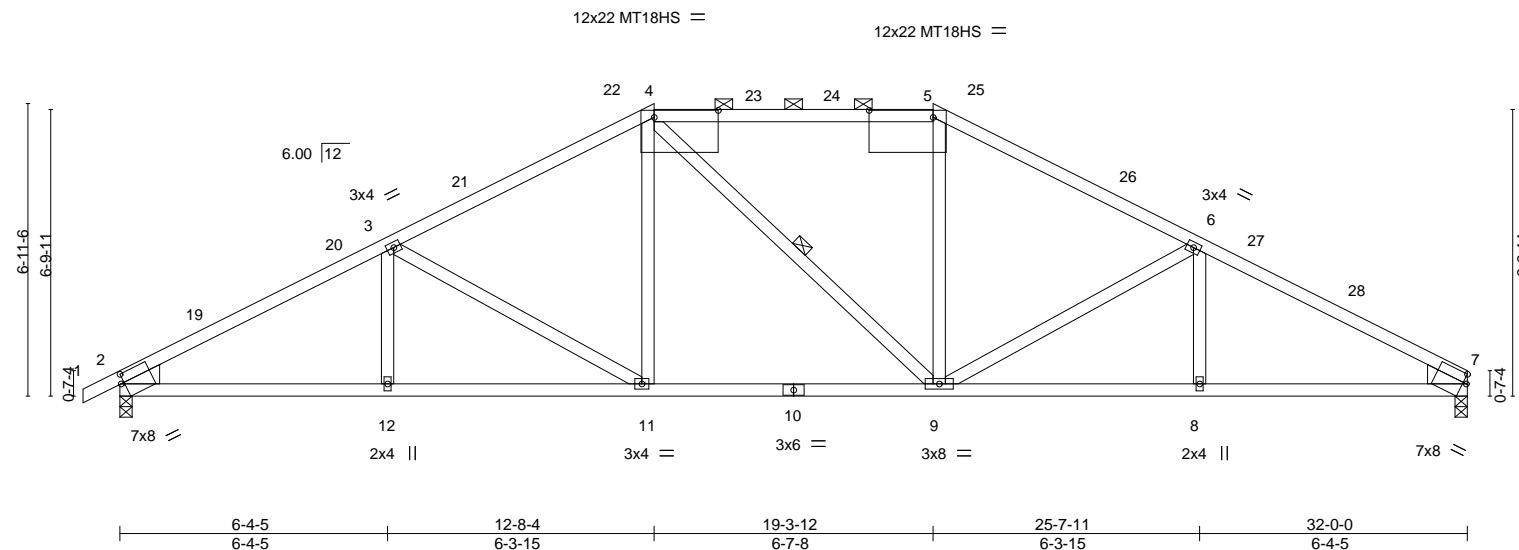


Plate Offsets (X,Y)--		[2:0-0-15,0-2-10], [2:0-4-9,0-2-1], [2:0-0-3,0-0-0], [4:1-6-4,0-2-0], [5:1-6-4,0-2-0], [7:0-0-3,0-0-0], [7:0-4-9,0-2-1], [7:Edge,0-2-10]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL (roof)	25.0	Plate Grip DOL	1.15
Snow (Pf)	20.0	Lumber DOL	1.15
TCDL	20.0	Rep Stress Incr	YES
BCLL	0.0	Code IRC2018/TPI2014	
BCDL	10.0		
		<b>CSI.</b>	
		TC	0.96
		BC	0.95
		WB	0.74
		Matrix-AS	
		<b>DEFL.</b>	
		in (loc)	L/defl
		Vert(LL)	-0.17 11-12 >999 240
		Vert(CT)	-0.35 11-12 >999 180
		Horz(CT)	0.14 7 n/a n/a
		<b>PLATES</b>	
		MT20	197/144
		MT18HS	197/144
		Weight: 129 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
4-5: 2x4 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x6 SPF No.2, Right: 2x6 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (2-2-0 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 4-9

#### REACTIONS.

(size) 2=0-3-8, 7=0-3-8  
Max Horz 2=74(LC 13)  
Max Uplift 2=-51(LC 16), 7=-42(LC 17)  
Max Grav 2=2103(LC 41), 7=2031(LC 41)

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

TOP CHORD 2-3=-3497/367, 3-4=-2678/350, 4-5=-2235/352, 5-6=-2680/351, 6-7=-3504/369  
BOT CHORD 2-12=-267/2984, 11-12=-267/2984, 9-11=-153/2233, 8-9=-263/2991, 7-8=-263/2991  
WEBS 3-11=-847/130, 4-11=-9/562, 5-9=-14/565, 6-9=-853/132

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-8-4, Exterior(2R) 12-8-4 to 16-11-3, Interior(1) 16-11-3 to 19-3-12, Exterior(2R) 19-3-12 to 23-6-11, Interior(1) 23-6-11 to 32-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 2 and 42 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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	Summit/15 Woodside	I43736333
2531735	B4	Hip	1	1		

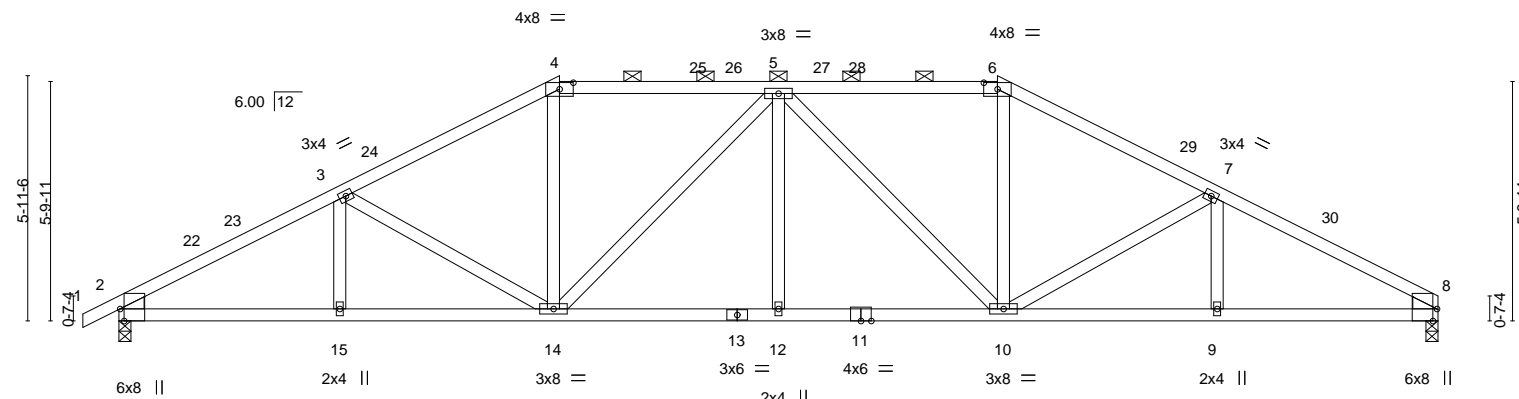
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:05 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-TY\_7gEJ2UD6fa0DKkzDPW4E5mwvYESgarmQGEnyGKly

-0-10-8	5-4-5	10-8-4	16-0-0	21-3-12	26-7-11	32-0-0
0-10-8	5-4-5	5-3-15	5-3-12	5-3-12	5-3-15	5-4-5

Scale = 1:55.9



	5-4-5	10-8-4	16-0-0	21-3-12	26-7-11	32-0-0
	5-4-5	5-3-15	5-3-12	5-3-12	5-3-15	5-4-5

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

<b>LOADING</b> (psf)	<b>SPACING</b>	<b>CSI</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 25.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.78	Vert(LL) -0.15 12 >999 240		
TCDL 20.0	Lumber DOL 1.15	WB 0.61	Vert(CT) -0.32 10-12 >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.13 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 133 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF 1650F 1.5E \*Except\*  
11-13: 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 8=0-3-8  
Max Horz 2=63(LC 13)  
Max Uplift 2=40(LC 16), 8=32(LC 17)  
Max Grav 2=2001(LC 41), 8=1892(LC 41)

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

TOP CHORD 2-3=-3234/365, 3-4=-2654/356, 4-5=-2282/352, 5-6=-2284/350, 6-7=-2657/359,  
7-8=-3247/367  
BOT CHORD 2-15=-274/2764, 14-15=-274/2764, 12-14=-215/2624, 10-12=-215/2624, 9-10=-270/2779,  
8-9=-270/2779  
WEBS 3-14=-615/105, 4-14=-43/658, 5-14=-593/68, 5-10=-592/68, 6-10=-43/660,  
7-10=-628/106

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-8-4, Exterior(2R) 10-8-4 to 14-11-3, Interior(1) 14-11-3 to 21-3-12, Exterior(2R) 21-3-12 to 25-6-11, Interior(1) 25-6-11 to 32-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 2 and 32 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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/TPI 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

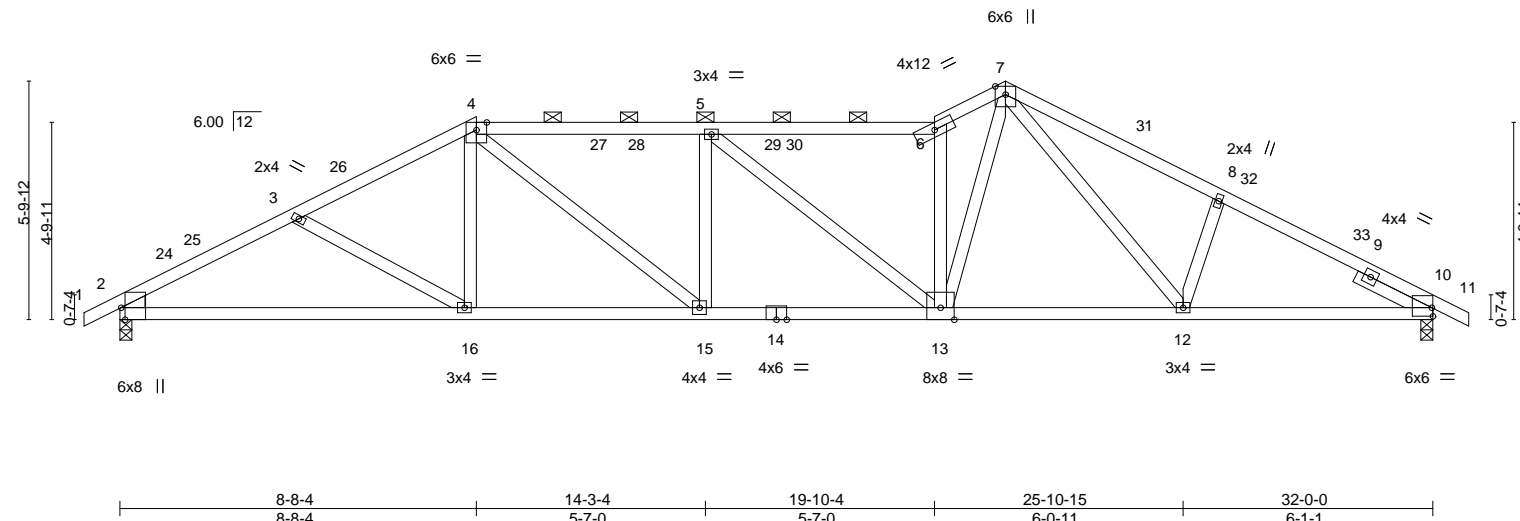


Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:07 2020 Page 1

ID:VPVqvFnP0P0b1j2lZrIQezdKbx-Px6u5vKI0qMnpJNisOFtbVKPVkZtLmtL4MfJyGkIW

-0-10-8 4-4-5 8-8-4 14-3-4 19-10-4 21-7-0 26-9-5 32-0-0 32-10-8  
0-10-8 4-4-5 4-3-15 5-7-0 5-7-0 1-8-12 5-2-5 5-2-11 0-10-8

Scale = 1:56.2



<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-4-11 max.): 4-6.
BOT CHORD	2x4 SPF No.2	BOT CHORD	
WEBS	2x4 SPF No.2		Rigid ceiling directly applied.
WEDGE			
Left: 2x4 SPF No.2			
SLIDER	Right 2x4 SPF No.2 2-0-0		

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=-62(LC 14)  
 Max Uplift 2=-94(LC 16), 10=-39(LC 17)  
 Max Grav 2=1830(LC 2), 10=1844(LC 2)

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

**TOP CHORD** 2-3=-3068/399, 3-4=-2789/378, 4-5=-3204/449, 5-6=-2881/418, 6-7=-3213/474,  
 7-8=-2847/423, 8-10=-2969/376

**BOT CHORD** 2-16=-290/2639, 15-16=-207/2454, 13-15=-290/3200, 12-13=-183/2235, 10-12=-268/2563

**WEBS** 3-16=-409/102, 4-16=0/314, 4-15=-107/988, 5-15=-514/110, 5-13=-501/58,  
 6-13=-1780/268, 7-13=-256/2312, 7-12=-78/501, 8-12=-350/121

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-8-4, Exterior(2R) 8-8-4 to 11-8-4, Interior(1) 11-8-4 to 21-7-0, Exterior(2R) 21-7-0 to 24-7-0, Interior(1) 24-7-0 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) Provide adequate drainage to prevent water ponding.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 2 and 39 lb uplift at joint 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736335
2531735	B6	ROOF SPECIAL	1	1		
Job Reference (optional)						

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:09 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-LJDeWbMYRc52dW5zpHMhwPnrXltAE7AoNOTNYyGKlu

-0-10-8	6-8-4	12-3-4	17-10-4	19-10-4	23-3-12	27-7-11	32-0-0	32-10-8
0-10-8	6-8-4	5-7-0	5-7-0	2-0-0	3-5-8	4-3-15	4-4-5	0-10-8

Scale = 1:57.1

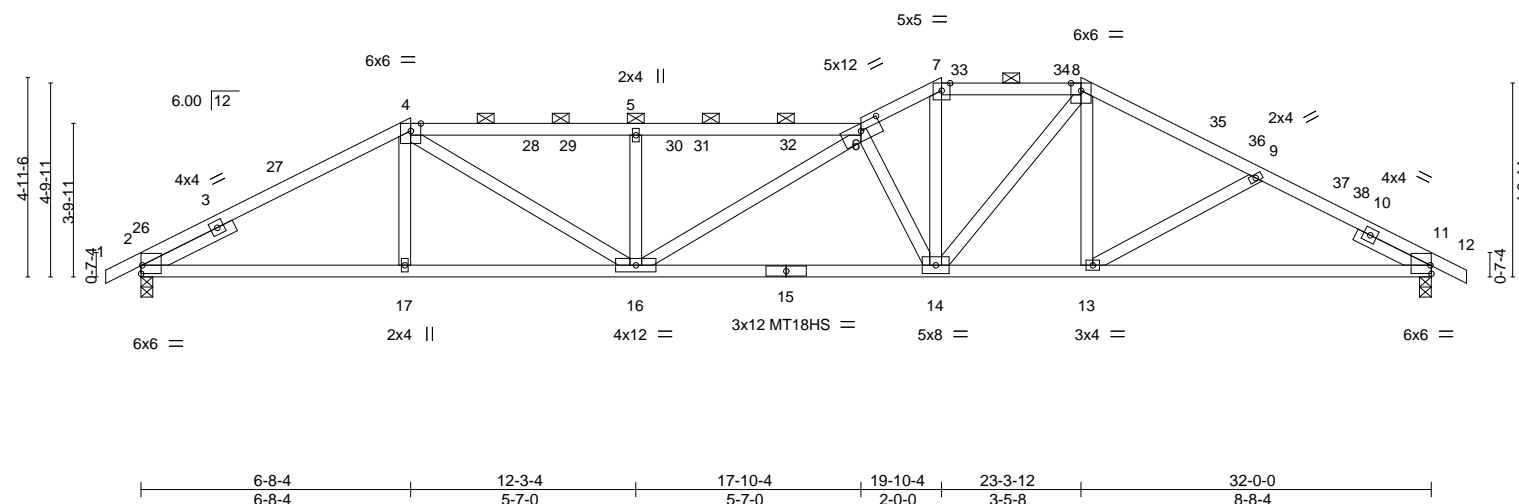


Plate Offsets (X,Y)-- [2:Edge,0-2-8], [6:0-6-0,0-2-0], [11:Edge,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.25	16	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.56	14-16	>683	180	MT18HS	197/144
TCDL	20.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.14	11	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS								
BCDL	10.0									Weight: 131 lb		FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except
1-4,4-6: 2x4 SPF 1650F 1.5E	2-0-0 oc purlins (2-6-11 max.): 4-6, 7-8.
BOT CHORD 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-0-0	

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
Max Horz 2=51(LC 15)  
Max Uplift 2=90(LC 16), 11=28(LC 17)  
Max Grav 2=1836(LC 2), 11=1907(LC 46)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-3052/400, 4-5=-4170/532, 5-6=-4170/532, 6-7=-3454/501, 7-8=-3016/453,  
8-9=-2732/410, 9-11=-2931/435  
BOT CHORD 2-17=-264/2676, 16-17=-266/2675, 14-16=-435/4058, 13-14=-248/2438, 11-13=-320/2527  
WEBS 4-16=-173/1770, 5-16=-868/134, 6-14=-2168/302, 7-14=-163/1309, 8-14=-105/934,  
9-13=-314/93

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-8-4, Exterior(2R) 6-8-4 to 9-8-4, Interior(1) 9-8-4 to 19-10-4, Exterior(2R) 19-10-4 to 22-10-4, Interior(1) 22-10-4 to 23-3-12, Exterior(2R) 23-3-12 to 26-3-12, Interior(1) 26-3-12 to 32-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 2 and 28 lb uplift at joint 11.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23,2020

**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	Summit/15 Woodside	143736336
2531735	B7	ROOF SPECIAL GIRDER	1	2		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:15 2020 Page 1

ID:VPVqvFnP0P0b1j2ZrLQeqzdKbx-ATavneQJ7HMEY\_FK3OmwbFkgYMPayQ2AJmbCyGKlo

-0-10-8	4-8-4	8-3-3	11-11-13	15-10-4	17-10-4	21-7-0	25-3-12	28-7-11	32-0-0	32-10-8
0-10-8	4-8-4	3-6-15	3-8-11	3-10-7	2-0-0	3-8-12	3-8-12	3-3-15	3-4-5	0-10-8

Scale = 1:57.1

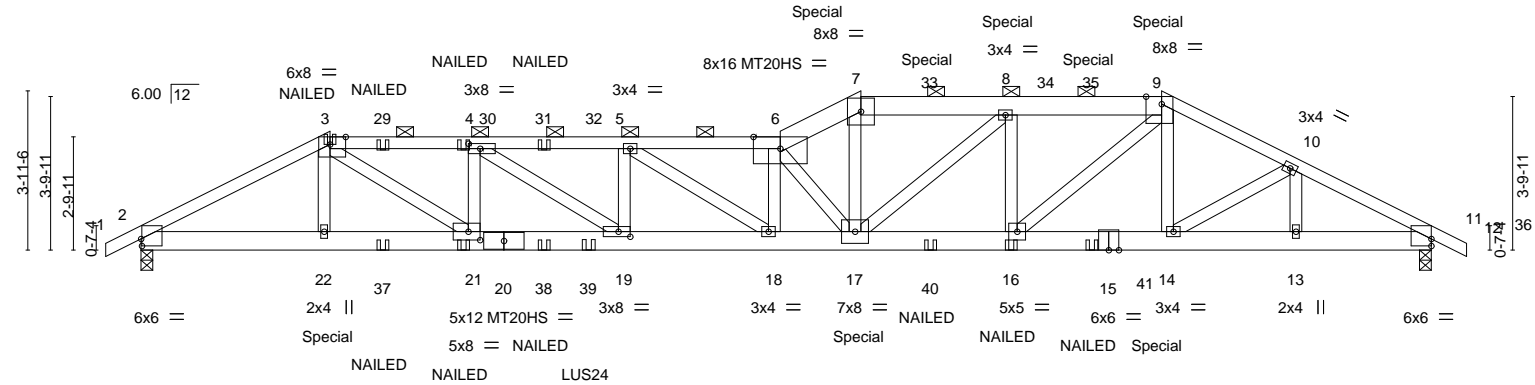


Plate Offsets (X,Y)--		[2:0-0-4,0-2-1], [3:0-4-10,Edge], [4:0-3-8,0-1-8], [9:0-4-10,Edge], [11:0-0-0,0-2-1], [19:0-3-8,0-1-8], [21:0-3-8,0-2-8]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL (roof)	25.0	Plate Grip DOL	1.15
Snow (Pf)	20.0	Lumber DOL	1.15
TCDL	20.0	Rep Stress Incr	NO
BCLL	0.0	Code	IRC2018/TPI2014
BCDL	10.0		
		<b>CSI.</b>	
		TC	0.93
		BC	0.68
		WB	0.66
		Matrix-MS	
		<b>DEFL.</b>	
		Vert(LL)	-0.43 18-19 >888 240
		Vert(CT)	-0.80 18-19 >481 180
		Horz(CT)	0.11 11 n/a n/a
		<b>PLATES</b>	
		MT20	197/144
		MT20HS	148/108
		<b>GRIP</b>	
			Weight: 315 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
3-6: 2x4 SPF 1650F 1.5E, 6-7,7-9: 2x6 SPF No.2  
BOT CHORD 2x6 SPF 2100F 1.8E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except  
2-0-0 oc purlins (2-7-13 max.): 3-6, 7-9.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 11=0-3-8  
Max Horz 2=41(LC 11)  
Max Uplift 2=210(LC 12), 11=217(LC 13)  
Max Grav 2=4077(LC 42), 11=4367(LC 42)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-7876/399, 3-4=-11434/529, 4-5=-14122/621, 5-6=-15034/739, 6-7=-12785/665,  
7-8=-11353/603, 8-9=-10176/557, 9-10=-8364/474, 10-11=-7644/405  
BOT CHORD 2-22=-340/7024, 21-22=-341/7020, 19-21=-494/11429, 18-19=-588/14122,  
17-18=-712/15094, 16-17=-491/10160, 14-16=-366/7509, 13-14=-329/6723,  
11-13=-329/6723  
WEBS 3-21=-213/5369, 4-21=-2598/187, 4-19=-122/3218, 5-19=-1159/159, 6-17=-5833/265,  
7-17=-186/4875, 8-17=-69/1573, 8-16=-2310/202, 9-16=-178/3628, 9-14=-19/898,  
10-14=-195/976, 10-13=-745/63, 6-18=-1049/117, 5-18=-168/1212

#### 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 0-4-0 oc, 2x6 - 2 rows staggered at 0-7-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered 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; TCCL=6.0psf; BCDL=4.2psf; h=20ft; 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
- TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 210 lb uplift at joint 2 and 217 lb uplift at joint 11.

Continued on page 2



November 23,2020

**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/TPI 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	Summit/15 Woodside
2531735	B7	ROOF SPECIAL GIRDER	1	2	I43736336
Job Reference (optional)					

- NOTES-**
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 14) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 11-1-4 from the left end to connect truss(es) to front face of bottom chord.
  - 15) Fill all nail holes where hanger is in contact with lumber.
  - 16) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 274 lb down and 91 lb up at 17-10-4, 274 lb down and 91 lb up at 19-7-0, 274 lb down and 91 lb up at 21-7-0, and 274 lb down and 91 lb up at 23-7-0, and 274 lb down and 91 lb up at 25-3-12 on top chord, and 470 lb down and 55 lb up at 4-8-4, and 823 lb down and 74 lb up at 17-10-4, and 823 lb down and 74 lb up at 25-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-80, 3-6=-80, 6-7=-80, 7-9=-80, 9-12=-80, 23-26=-20

Concentrated Loads (lb)

Vert: 3=-142(F) 7=-246(F) 9=-246(F) 22=-470(F) 21=-58(F) 4=-142(F) 17=-823(F) 8=-246(F) 16=-85(F) 14=-823(F) 29=-142(F) 31=-142(F) 33=-246(F) 35=-246(F) 37=-58(F) 38=-58(F) 39=-497(F) 40=-85(F) 41=-85(F)

Job 2531735	Truss C1	Truss Type Jack-Closed	Qty 5	Ply 1	Summit/15 Woodside Job Reference (optional)	143736337
----------------	-------------	---------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:16 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-ef8H\_\_RsubU5OiZrtnv?TOC?3MnnJOoBPzbL7eyGKIn

0-10-8 6-2-15 12-9-0  
0-10-8 6-2-15 6-6-1

Scale = 1:40.1

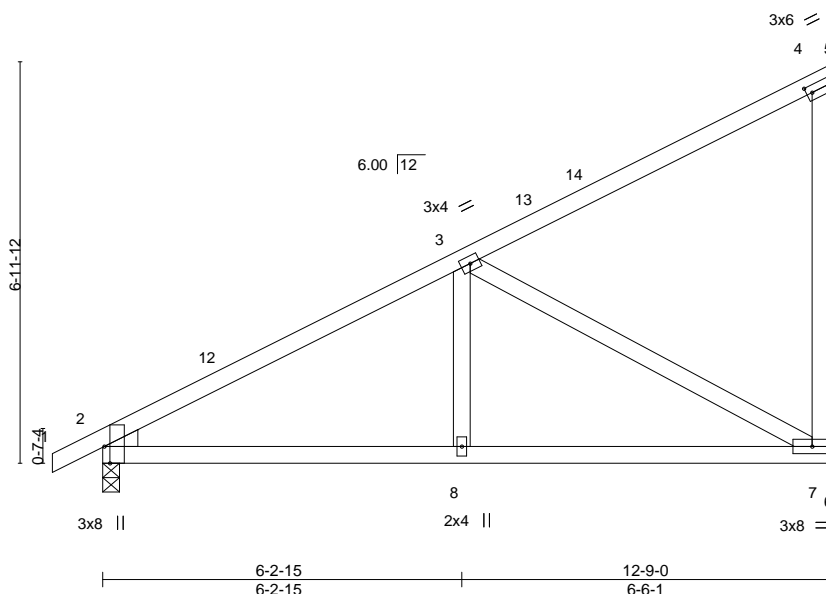


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [4:0-1-3,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.57	Vert(LL) -0.04	7-8	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.07	7-8	>999	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.71	Horz(CT) 0.01	7	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS							
BCDL 10.0								Weight: 51 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=0-3-8, 7=Mechanical  
Max Horz 2=211(LC 15)  
Max Uplift 2=28(LC 16), 7=65(LC 16)  
Max Grav 2=768(LC 2), 7=789(LC 23)

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

TOP CHORD 2-3=-925/158, 4-7=-331/168  
BOT CHORD 2-8=-281/745, 7-8=-281/745  
WEBS 3-8=0/272, 3-7=-817/231

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 2 and 65 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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	Summit/15 Woodside	I43736338
2531735	C2	Jack-Closed	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:17 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-6sigBKSAfvcy0s8dRUQE?ck8Om3M2vuLedKuf4yGKlm

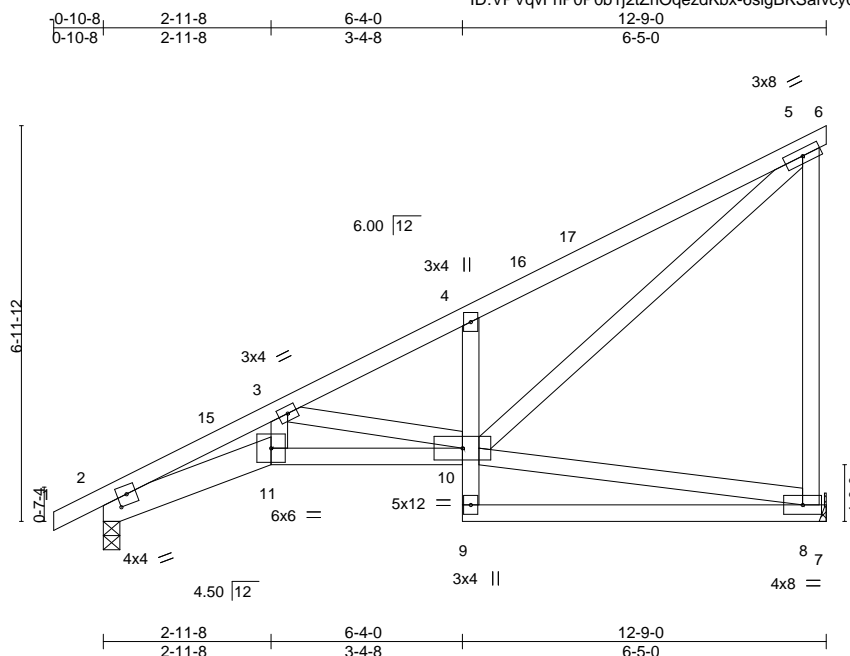


Plate Offsets (X,Y)-- [2-0-2-0,0-2-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.66	Vert(LL) -0.06	10-11	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.52	Vert(CT) -0.13	10-11	>999	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.47	Horz(CT) 0.07	8	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS							
BCDL 10.0									

Weight: 65 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-11: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 8=Mechanical, 2=0-3-8  
Max Horz 2=211(LC 15)  
Max Uplift 8=65(LC 16), 2=27(LC 16)  
Max Grav 8=789(LC 23), 2=768(LC 2)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2053/351, 3-4=-1061/170, 4-5=-1213/277, 5-8=-713/296  
BOT CHORD 2-11=-699/1835, 10-11=-634/1678, 4-10=-568/246  
WEBS 3-11=-183/517, 3-10=-766/271, 5-10=-418/1248

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 8 and 27 lb uplift at joint 2.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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	Summit/15 Woodside	I43736339
2531735	C3	Jack-Closed	3	1		

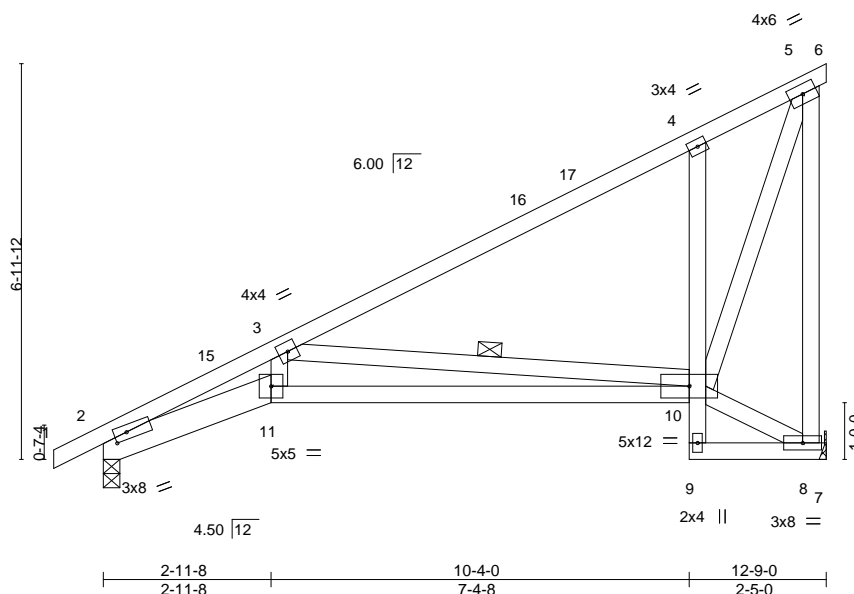
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:18 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-b2G2PgTCQCKpd?ip?CyTYpHJEANtnNWUsH4SCWyGKII

0-10-8 2-11-8 10-4-0 12-9-0  
0-10-8 2-11-8 7-4-8 2-5-0



Scale = 1:40.6

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.66	Vert(LL) -0.11	10-11	>999	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.69	Vert(CT) -0.28	10-11	>528	180		
TCDL 20.0	Rep Stress Incr YES	WB 0.44	Horz(CT) 0.12	8	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS						
BCDL 10.0							Weight: 65 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-11: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-10

#### REACTIONS.

(size) 8=Mechanical, 2=0-3-8  
Max Horz 2=211(LC 15)  
Max Uplift 8=65(LC 16), 2=27(LC 16)  
Max Grav 8=789(LC 23), 2=768(LC 2)

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

TOP CHORD 2-3=-2357/406, 3-4=-568/99, 4-5=-490/159, 5-8=-761/261  
BOT CHORD 2-11=-760/2152, 10-11=-711/1988, 4-10=-636/295  
WEBS 3-11=-144/627, 3-10=-1622/515, 5-10=-326/983

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 8 and 27 lb uplift at joint 2.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23,2020

**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	Summit/15 Woodside	143736340
2531735	C4	Jack-Closed	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:19 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-3EqQc0UqBWsgF9H0ZvTi51qQmZiWWn3e5xp?kzyGKlk

0-10-8	2-3-8	4-2-7	6-9-12	7-3-12	11-4-0	12-9-0
0-10-8	2-3-8	1-10-15	2-7-5	0-6-0	4-0-4	1-5-0

Scale = 1:42.2

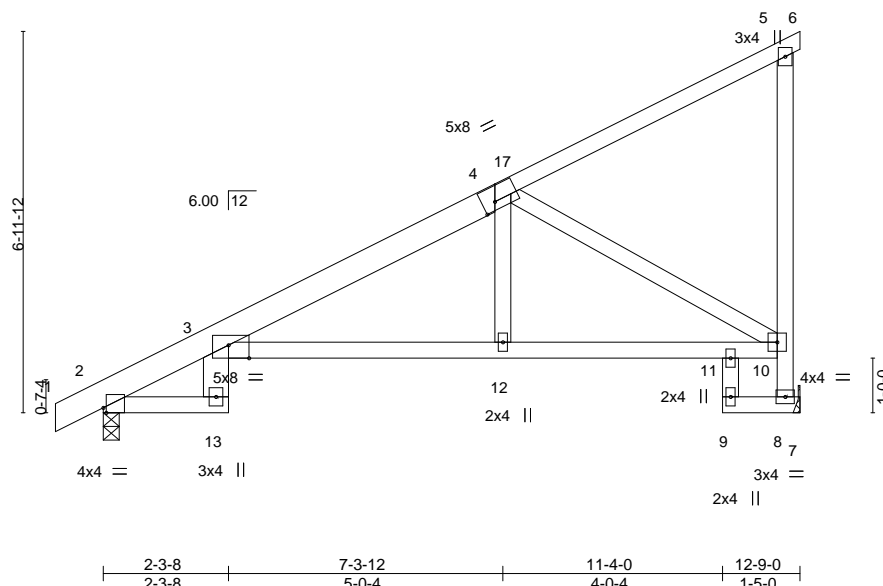


Plate Offsets (X,Y)-- [2:0-0-10,Edge], [3:0-4-8,Edge], [4:0-2-12,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	2-0-0	TC	0.93				MT20	197/144
Snow (Pf)	20.0	Plate Grip DOL	BC	0.73	-0.15	3-12	>999		
TCDL	20.0	Lumber DOL	WB	0.62	-0.34	3-12	>446		
BCLL	0.0	Rep Stress Incr	Matrix-AS		0.21	8	n/a		
BCDL	10.0	Code IRC2018/TPI2014					n/a		
								Weight: 59 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SPF No.2 \*Except\*  
4-6: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-13: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 8=Mechanical, 2=0-3-8  
Max Horz 2=211(LC 15)  
Max Uplift 8=65(LC 16), 2=-28(LC 16)  
Max Grav 8=789(LC 23), 2=768(LC 2)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-15=-482/84, 3-4=-997/149, 8-10=-760/202, 5-10=-261/91  
BOT CHORD 3-12=-311/907, 11-12=-308/913, 10-11=-328/919  
WEBS 4-12=0/253, 4-10=-1014/253

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-0-12, Interior(1) 2-0-12 to 12-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 8 and 28 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

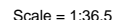
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:21 2020 Page 1  
ID:VPVayFnP0P0b1i2iZrIQaezdKbp-x?dvA1iV4i77OUTROgKVAASvgKNMp i4xZF16orvGKli



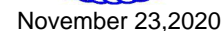
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**TOP CHORD** 3-15=-497/80, 3-4=-1446/175, 4-5=-469/103, 5-6=-273/113, 7-9=-744/216,  
6-9=-727/192

**BOT CHORD** 3-12=-426/1348, 11-12=-426/1348

**WEBS** 6-11=-198/724, 4-11=-1232/313

- 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 10-8-4, Exterior(2E) 10-8-4 to 12-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 7 and 34 lb uplift at joint 2.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736342
2531735	C6	Half Hip	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:22 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-TpWZF2WiURFF6d0bE10PifS?LniUjEq4nv2fLlyGKIh

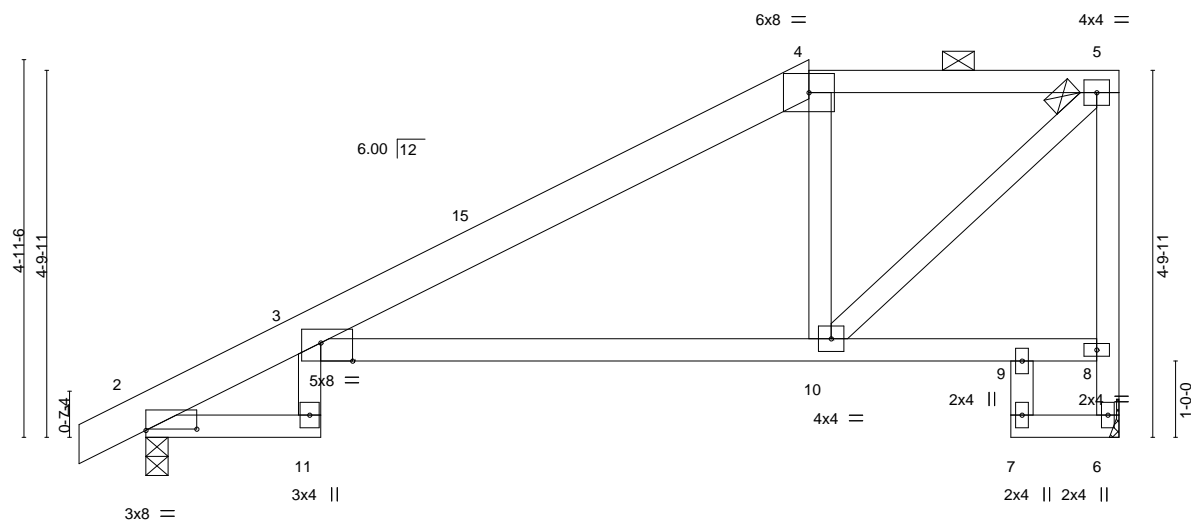
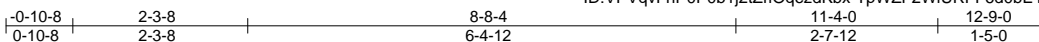


Plate Offsets (X,Y)--	[2:0-8-0,0-0-3], [3:0-5-0,Edge]
-----------------------	---------------------------------

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.65	Vert(LL)	-0.28	3-10	>542	240	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.84	Vert(CT)	-0.52	3-10	>292	180		
TCDL 20.0	Lumber DOL 1.15	WB 0.23	Horz(CT)	0.28	6	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 56 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SPF 2100F 1.8E \*Except\*  
4-5: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 6=Mechanical, 2=0-3-8  
Max Horz 2=146(LC 15)  
Max Uplift 6=45(LC 13), 2=35(LC 16)  
Max Grav 6=690(LC 2), 2=958(LC 38)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-13=-457/84, 3-4=-822/137, 4-5=-679/169, 6-8=-677/189, 5-8=-694/199  
BOT CHORD 3-10=-263/698  
WEBS 4-10=-446/211, 5-10=-265/944

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 8-8-4, Exterior(2E) 8-8-4 to 12-7-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 6 and 35 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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



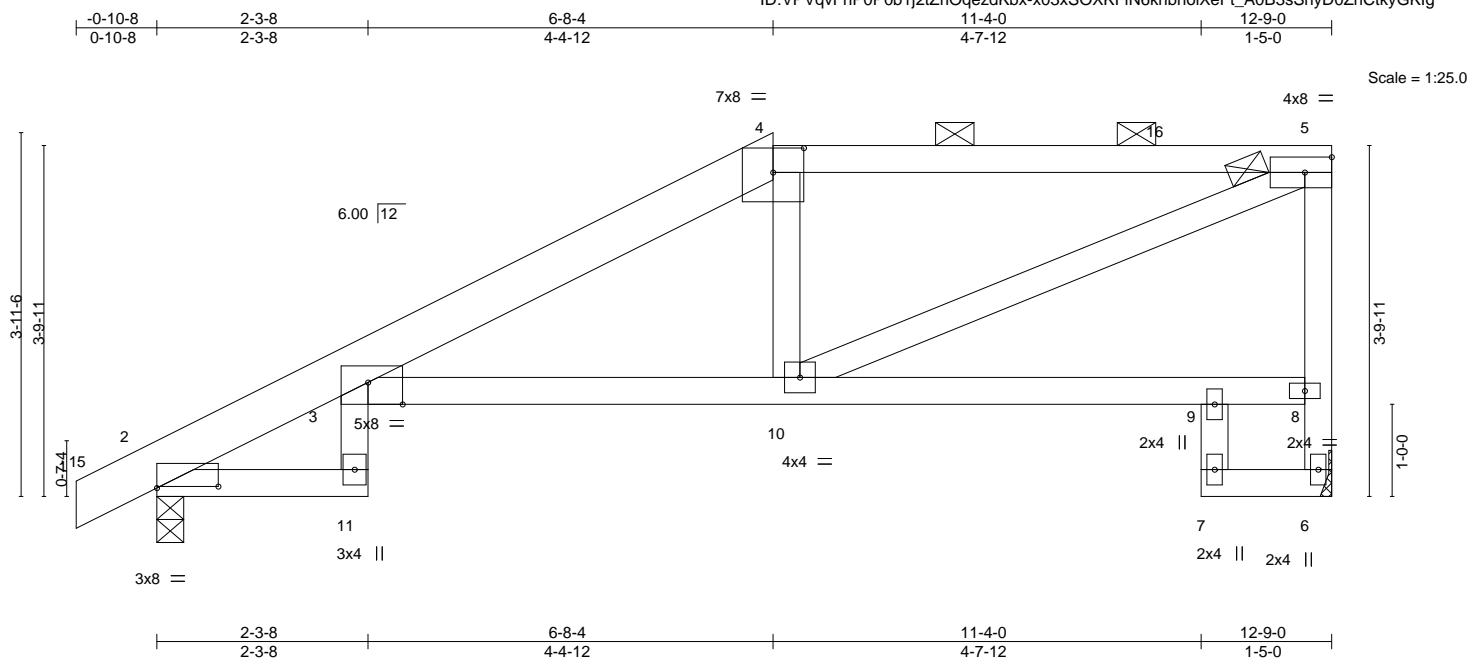


Plate Offsets (X,Y)-- [2:0-8-0,0-0-3], [3:0-4-8,Edge], [4:0-4-0,0-3-3]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.16 3-10 >924 240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.32 3-10 >479 180		
TCDL	20.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.20 6 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 53 lb	FT = 20%
BCDL	10.0								

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x6 SPF 2100F 1.8E *Except*	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
	4-5: 2x4 SPF No.2		2-0-0 oc purlins (4-7-7 max.): 4-5.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		

**REACTIONS.** (size) 6=Mechanical, 2=0-3-8  
Max Horz 2=115(LC 15)  
Max Uplift 6=44(LC 13), 2=31(LC 16)  
Max Grav 6=766(LC 37), 2=904(LC 38)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-13=-419/90, 3-4=-1076/214, 4-5=-978/253, 6-8=-740/161, 5-8=-705/178  
 BOT CHORD 3-10=-338/995  
 WEBS 4-10=-278/159, 5-10=-295/976

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 6-8-4, Exterior(2R) 6-8-4 to 10-11-3, Interior(1) 10-11-3 to 12-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0: Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 6 and 31 lb uplift at joint 2.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23.2020



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	Summit/15 Woodside	143736344
2531735	C8	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:25 2020 Page 1
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-tOBht3YbmMdqz4IAvAa6KH3Ta\_iewTZWTtGJydyGKle

-0-10-8
2-3-8
4-8-4
8-8-10
11-4-0
12-9-0
0-10-8
2-3-8
2-4-12
4-0-6
2-7-6
1-5-0

Scale = 1:22.3

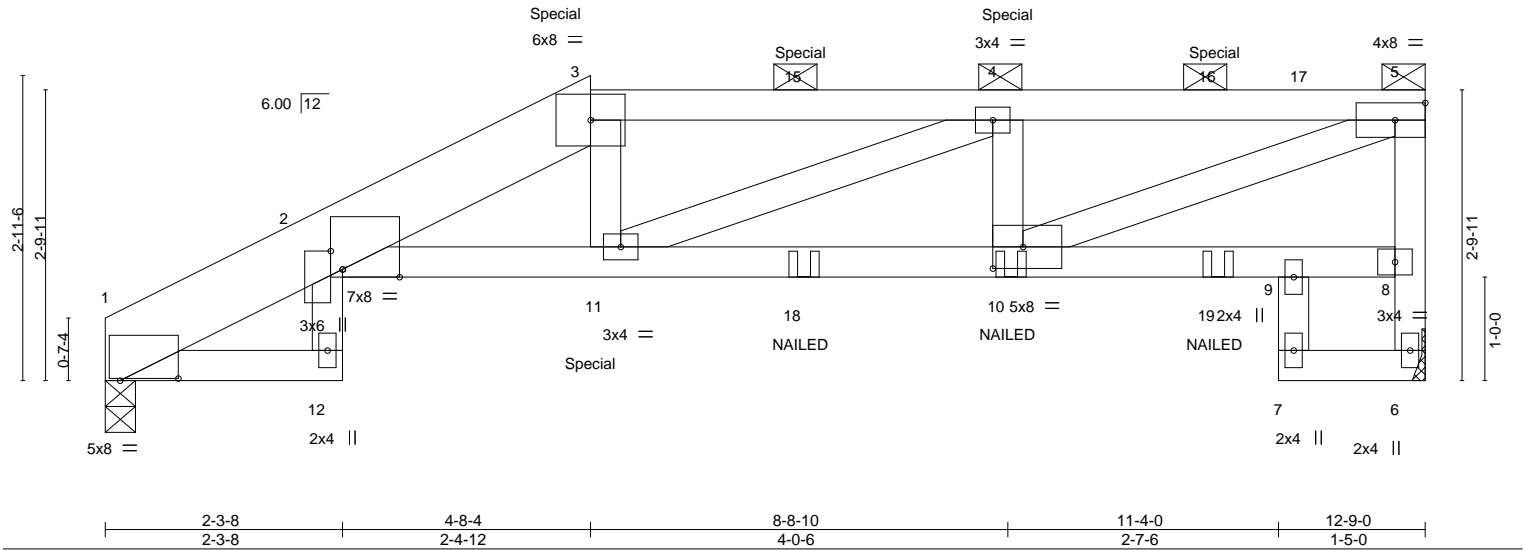


Plate Offsets (X,Y)--		[1:0-6-12,0-0-4], [2:0-6-10,Edge], [2:0-2-2,0-1-6], [10:0-3-8,0-2-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>		<b>GRIP</b>	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.12 10-11 >999 240	MT20		197/144	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.22 10-11 >677 180				
TCDL	20.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.16 6 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS							
BCDL	10.0										
								Weight: 58 lb		FT = 20%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x8 SP 2400F 2.0E *Except* 3-5: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-5-3 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-4 max.): 3-5.
BOT CHORD	2x4 SPF No.2 *Except* 2-8: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 7-9,6-7.
WEBS	2x4 SPF No.2		

**REACTIONS.** (size) 1=0-3-8, 6=Mechanical  
Max Horz 1=77(LC 54)  
Max Uplift 1=-108(LC 12), 6=-134(LC 9)  
Max Grav 1=1319(LC 34), 6=1392(LC 33)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-13=-633/68, 2-3=-3161/329, 3-4=-3152/338, 4-5=-2765/277, 6-8=-1350/138,  
5-8=-1270/139  
BOT CHORD 2-11=-368/3121, 10-11=-307/2765  
WEBS 3-11=-84/365, 4-10=-816/124, 4-11=-81/608, 5-10=-290/2792

- 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; BCCL=4.2psf; h=20ft; 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
  - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - 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.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 1 and 134 lb uplift at joint 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 155 lb down and 50 lb up at 4-8-4, 155 lb down and 50 lb up at 6-9-0, and 155 lb down and 50 lb up at 8-9-0, and 155 lb down and 50 lb up at 10-9-0 on top chord, and 527 lb down and 101 lb up at 4-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

**LOAD CASE(S)** Standard

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

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



November 23,2020

**MiTek**

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736344
2531735	C8	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:25 2020 Page 2  
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-tOBht3YbmMdqz4IAvAa6KH3Ta\_iewTZWTtGJydyGKle

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-80, 2-3=-80, 3-5=-80, 1-12=-20, 2-9=-20, 6-7=-20

Concentrated Loads (lb)

Vert: 3=-115(B) 11=-527(B) 4=-115(B) 10=-87(B) 15=-115(B) 16=-115(B) 18=-87(B) 19=-87(B)

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736345
2531735	CJ1	Diagonal Hip Girder	1	1		
Job Reference (optional)						

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:26 2020 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-Mbl34PZDXglgbEKMt15LtVcjHO3Df4QgiX0tU3yGKld



Scale = 1:17.4

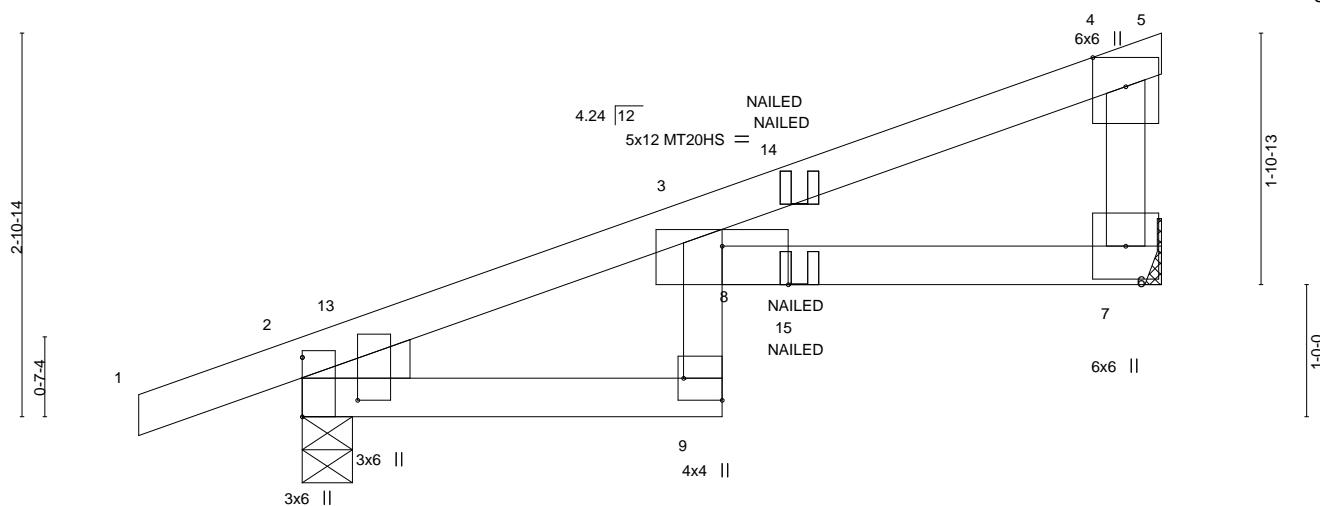


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0], [3:0-1-12,0-0-10], [3:0-6-0,Edge], [8:0-0-0,0-1-12], [9:Edge,0-3-8]
-----------------------	---

LOADING (psf)		SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.08	7-8	>902	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.14	7-8	>522	180	MT20HS	148/108
TCDL	20.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.05	7	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 21 lb	FT = 20%
BCDL	10.0											

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 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) 7=Mechanical, 2=0-4-9  
Max Horz 2=71(LC 9)  
Max Uplift 7=50(LC 12), 2=66(LC 8)  
Max Grav 7=467(LC 19), 2=524(LC 19)

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

TOP CHORD 2-3=-583/51, 3-4=-331/39  
BOT CHORD 2-9=-63/482, 7-8=-40/312

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 7 and 66 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-80, 4-5=-80, 9-10=-20, 6-8=-20  
Concentrated Loads (lb)  
Vert: 15=-71(F=-36, B=-36)



November 23, 2020

**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	Summit/15 Woodside	I43736346
2531735	CJ2	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:27 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-qnJSllariztXCOuY1acaPi9\_voacOWRpXBIQ0VyGKlc



Scale = 1:16.5

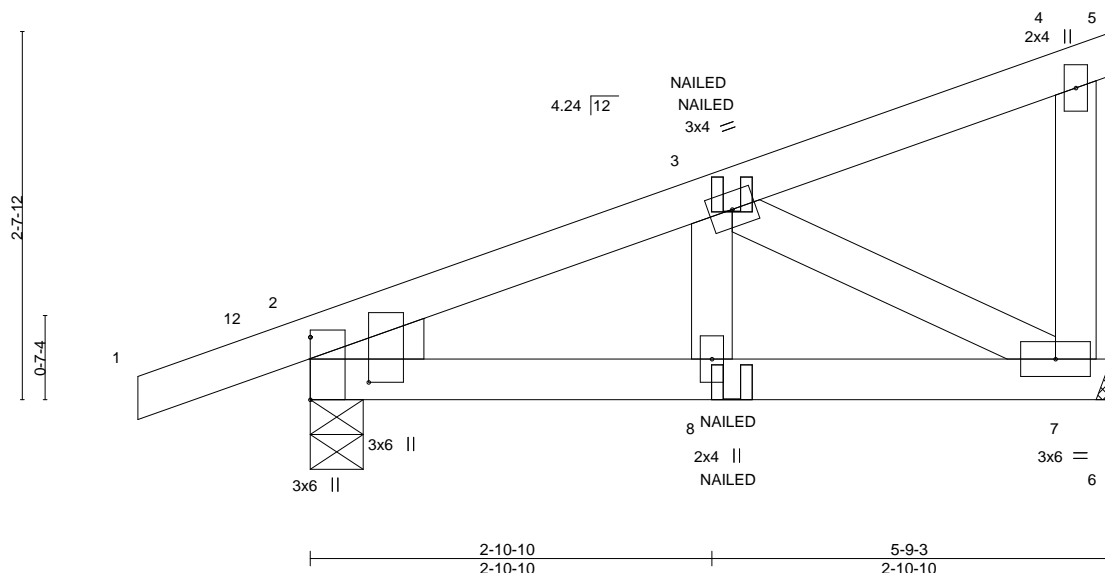


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.15	Vert(LL) -0.00	8	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.14	Vert(CT) -0.01	8	>999	180			
TCDL 20.0	Rep Stress Incr NO	WB 0.08	Horz(CT) 0.00	7	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MP							
BCDL 10.0								Weight: 23 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 7=Mechanical, 2=0-4-9  
Max Horz 2=78(LC 11)  
Max Uplift 7=24(LC 12), 2=51(LC 8)  
Max Grav 7=386(LC 19), 2=479(LC 19)

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

TOP CHORD 2-3=-455/19  
BOT CHORD 2-8=-29/399, 7-8=-29/399  
WEBS 3-7=-447/40

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 7 and 51 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-80, 4-5=-80, 6-9=-20  
Concentrated Loads (lb)  
Vert: 8=-18(F=-9, B=-9)



November 23, 2020

**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	Summit/15 Woodside	143736347
2531735	CJ3	Diagonal Hip Girder	2	1		
Job Reference (optional)						

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:28 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-lztqV5aT3H?OqYTkai7pywh3fCsN7wBzArVzYxyGKlb

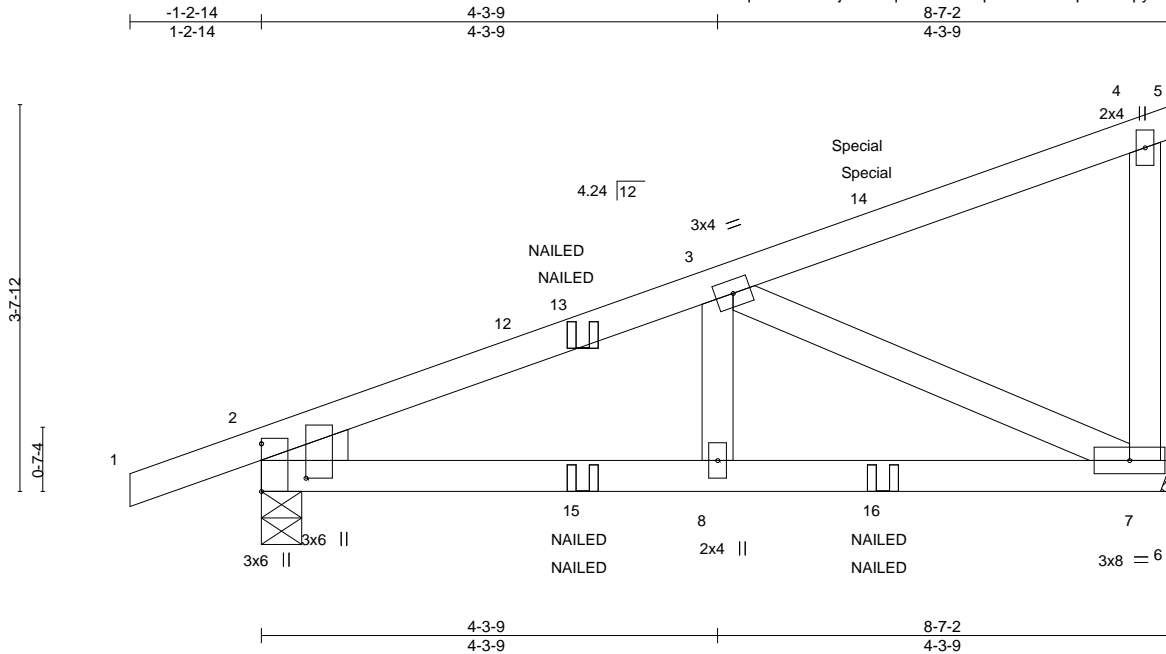


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	TC	0.53				MT20	197/144
Snow (Pf)	20.0	Lumber DOL	BC	0.43					
TCDL	20.0	Rep Stress Incr	WB	0.30					
BCLL	0.0	Code IRC2018/TPI2014	Matrix-MP						
BCDL	10.0								
								Weight: 33 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 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) 7=Mechanical, 2=0-4-9  
Max Horz 2=110(LC 35)  
Max Uplift 7=50(LC 12), 2=69(LC 8)  
Max Grav 7=669(LC 19), 2=641(LC 19)

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

TOP CHORD 2-3=-901/56  
BOT CHORD 2-8=-83/810, 7-8=-83/810  
WEBS 3-7=-889/92

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 7 and 69 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 116 lb down and 50 lb up at 5-10-4, and 115 lb down and 49 lb up at 5-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15



November 23, 2020

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736347
2531735	CJ3	Diagonal Hip Girder	2	1	Job Reference (optional)	

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-4=-80, 4-5=-80, 6-9=-20

Concentrated Loads (lb)

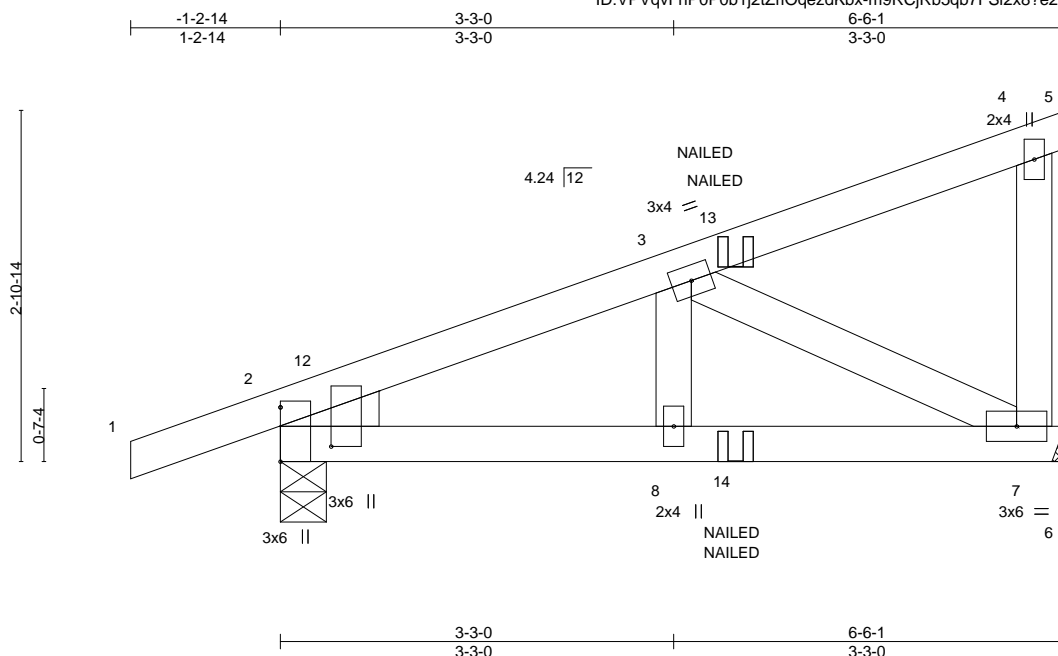
Vert: 14=-152(F=-76, B=-76) 15=-24(F=-15, B=-9) 16=-83(F=-44, B=-40)

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736348
2531735	CJ4	Diagonal Hip Girder	2	1		
Job Reference (optional)						

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:29 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-m9RCjRb5qb7FSi2x8?e2U7EKkbGSsQQ6OVEX5OyGKla



Scale = 1:19.1

Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	in	(loc)	l/defl	L/d	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(LL)	-0.01	8	>999		
TCDL	20.0	Rep Stress Incr	NO	WB	0.11	Vert(CT)	-0.01	7-8	>999		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP		Horz(CT)	0.00	7	n/a		
BCDL	10.0									Weight: 25 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 WEDGE  
 Left: 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) 7=Mechanical, 2=0-4-9  
 Max Horz 2=86(LC 11)  
 Max Uplift 7=27(LC 12), 2=53(LC 8)  
 Max Grav 7=440(LC 19), 2=506(LC 19)

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

TOP CHORD 2-3=-552/22  
 BOT CHORD 2-8=-44/484, 7-8=-44/484  
 WEBS 3-7=-539/47

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 7 and 53 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
 Vert: 1-4=-80, 4-5=-80, 6-9=-20
- Concentrated Loads (lb)  
 Vert: 13=-12(F=-6, B=-6) 14=-26(F=-13, B=-13)



November 23, 2020

**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	Summit/15 Woodside	143736349
2531735	CJ5	Diagonal Hip Girder	1	1		
Job Reference (optional)						

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:30 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-EM\_awnjcibuF63rd7ij9H1LnS0?XRbrXFd9\_4dqyGKIZ

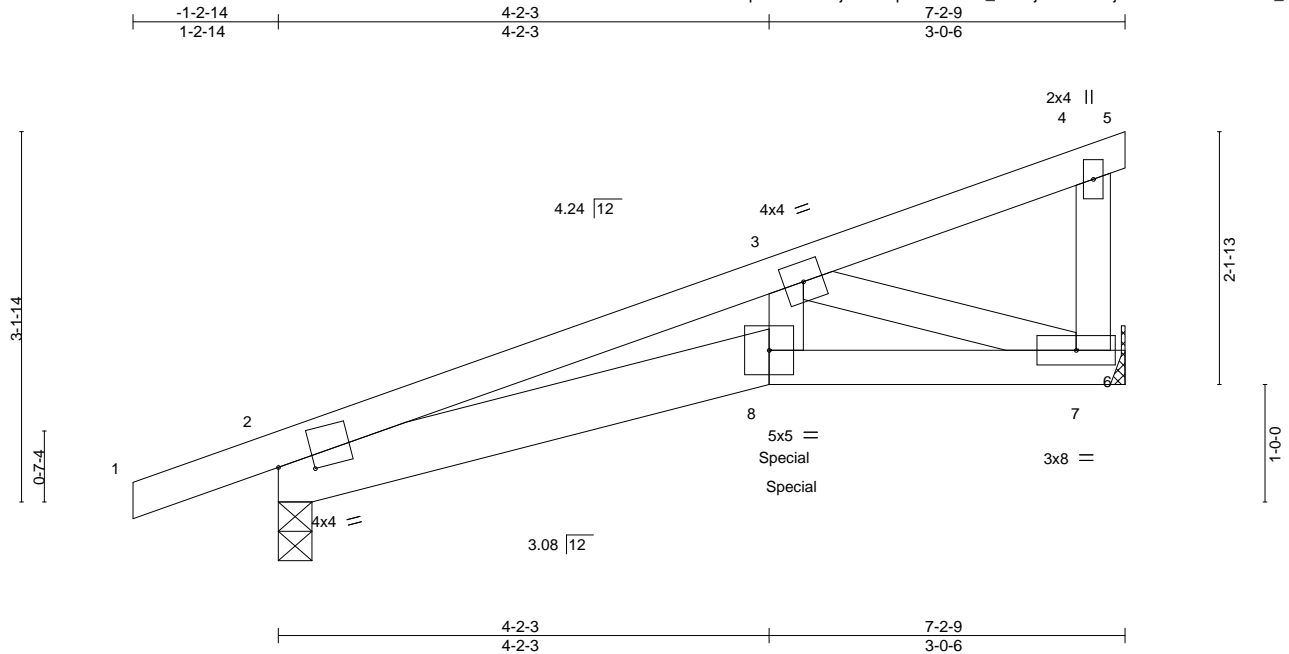


Plate Offsets (X,Y)-- [2:0-3-10,0-1-1]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	2-0-0	TC 0.28	Vert(LL)	-0.04	8	>999	240	MT20	197/144
Snow (Pf)	20.0		LC 0.39	Vert(CT)	-0.06	8	>999	180		
TCDL	20.0		WB 0.25	Horz(CT)	0.03	7	n/a	n/a		
BCLL	0.0		Matrix-MP							
BCDL	10.0									
									Weight: 27 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-8: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-7, 7=Mechanical  
Max Horz 2=79(LC 9)  
Max Uplift 2=-85(LC 8), 7=-78(LC 12)  
Max Grav 2=642(LC 19), 7=648(LC 19)

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

TOP CHORD 2-3=-1694/230  
BOT CHORD 2-8=-235/1576, 7-8=-208/1409  
WEBS 3-8=-108/713, 3-7=-1479/232

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- 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 85 lb uplift at joint 2 and 78 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 149 lb down and 56 lb up at 4-2-3, and 149 lb down and 56 lb up at 4-2-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

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



November 23, 2020

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736349
2531735	CJ5	Diagonal Hip Girder	1	1	Job Reference (optional)	

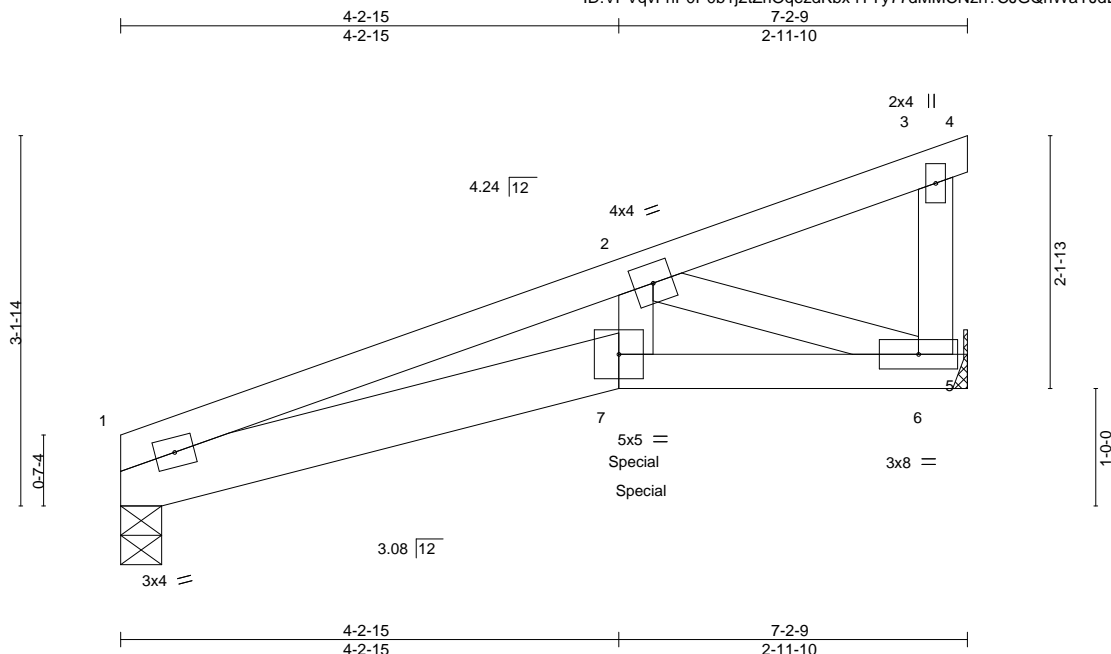
**LOAD CASE(S)** Standard  
Uniform Loads (plf)  
Vert: 1-4=-80, 4-5=-80, 8-9=-20, 6-8=-20  
Concentrated Loads (lb)  
Vert: 8=-299(F=-149, B=-149)



Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736350
2531735	CJ6	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:31 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-iYYy77dMMCnzH?CJGQhWaYJdEPtiKlqPspje9GyGKIY



Scale = 1:19.6

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.03	MT20		197/144	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.06				
TCDL	20.0	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.03				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							
BCDL	10.0										

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
1-7: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 1=0-4-3, 6=Mechanical  
Max Horz 1=72(LC 9)  
Max Uplift 1=47(LC 8), 6=81(LC 12)  
Max Grav 1=539(LC 18), 6=666(LC 18)

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

TOP CHORD 1-2=-1702/230  
BOT CHORD 1-7=-233/1580, 6-7=-207/1413  
WEBS 2-7=-108/727, 2-6=-1490/232

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 1 and 81 lb uplift at joint 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.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 158 lb down and 57 lb up at 4-2-14, and 149 lb down and 56 lb up at 4-2-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-80, 3-4=-80, 7-8=-20, 5-7=-20  
Concentrated Loads (lb)  
Vert: 7=-308(F=-149, B=-158)



November 23, 2020

**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 2531735	Truss CJ8	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Summit/15 Woodside	I43736352
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:33 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-exgjYoeupdhwJMiNrj\_fzPteDYkoF9iJ6CkE9yGKIW

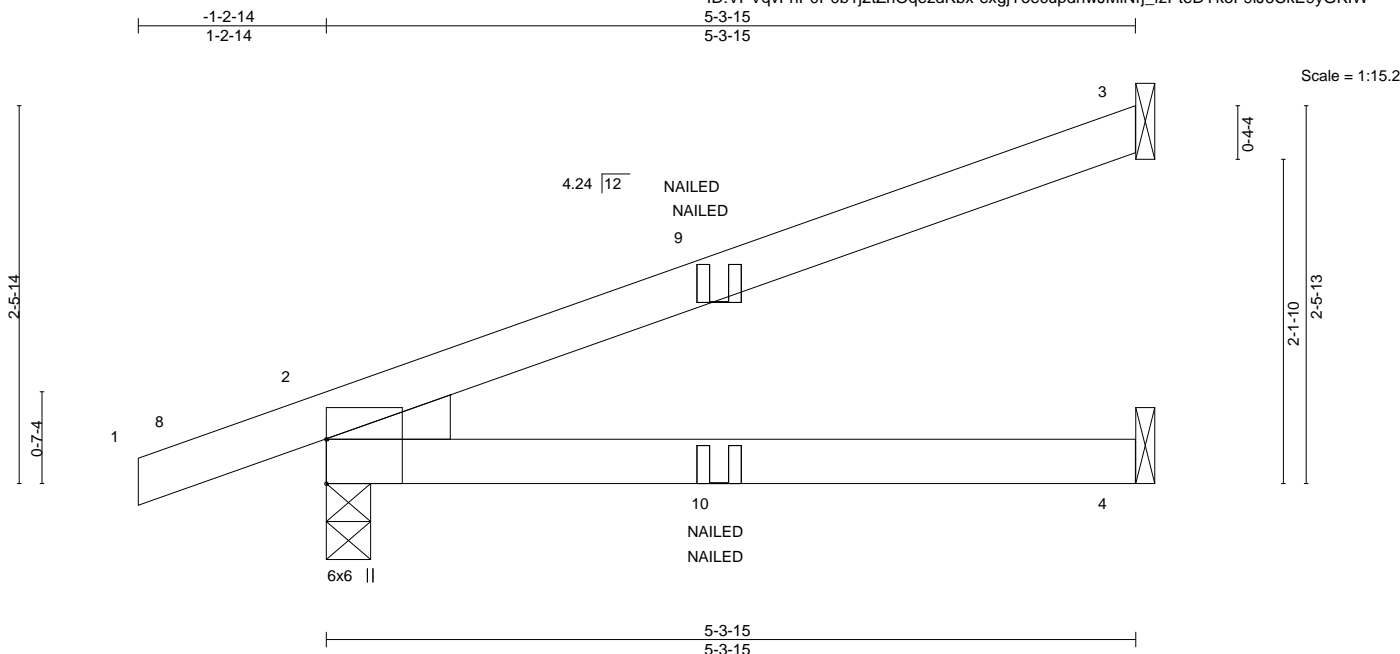


Plate Offsets (X,Y)-- [2:0-1-14,0-6-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.06	4-7	>999	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.12	4-7	>519	180		
TCDL 20.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-MP							
BCDL 10.0									Weight: 15 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 2=0-3-8  
Max Horz 3=68(LC 8)  
Max Uplift 3=-15(LC 12), 2=-76(LC 8)  
Max Grav 3=237(LC 19), 4=104(LC 7), 2=480(LC 19)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 3 and 76 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-80, 4-5=-20  
Concentrated Loads (lb)  
Vert: 10=-14(F=-7, B=-7)



November 23, 2020

**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

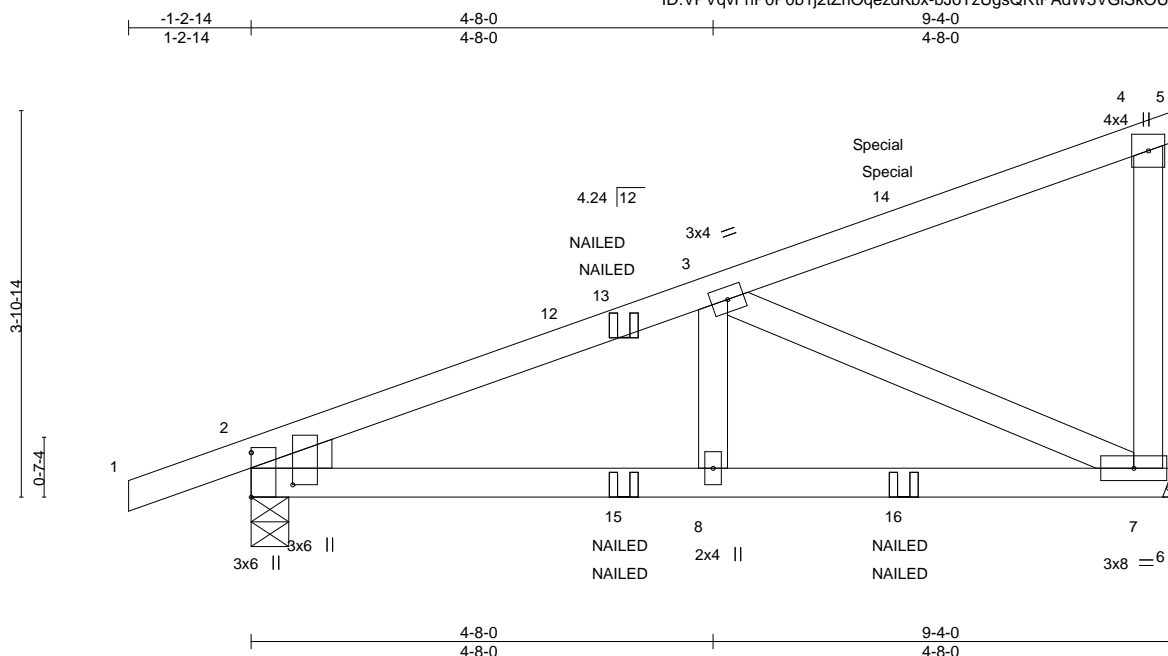


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]								
<b>LOADING</b>	(psf)		<b>SPACING-</b>	2-0-0		<b>CSI.</b>		
TCLL (roof)	25.0		Plate Grip DOL	1.15		TC	0.68	<b>DEFL.</b>
Snow (Pf)	20.0		Lumber DOL	1.15		BC	0.47	in (loc) l/defl L/d
TCDL	20.0		Rep Stress Incr	NO		WB	0.37	
BCLL	0.0		Code IRC2018/TPI2014			Matrix-MS		
BCDL	10.0							
								<b>PLATES GRIP</b>
								MT20 197/144
								Weight: 35 lb FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		
WEDGE			
Left: 2x4 SPF No.2			

**REACTIONS.** (size) 7=Mechanical, 2=0-4-9  
Max Horz 2=118(LC 11)  
Max Uplift 7=-54(LC 9), 2=-65(LC 8)  
Max Gray 7=766(LC 19), 2=687(LC 19)

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

TOP CHORD	2-3=-1006/53, 4-7=-288/48
BOT CHORD	2-8=-89/907, 7-8=-89/907
WEBS	3-7=-932/86

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 7 and 65 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 143 lb down and 57 lb up at 6-7-2, and 143 lb down and 57 lb up at 6-7-2 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15



November 23, 2020

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736353
2531735	CJ9	Diagonal Hip Girder	2	1	Job Reference (optional)	

**LOAD CASE(S)** Standard
 

Uniform Loads (plf)
 

Vert: 1-4=-80, 4-5=-80, 6-9=-20

 Concentrated Loads (lb)
 

Vert: 13=-12(F=-6, B=-6) 14=-207(F=-104, B=-104) 15=-26(F=-13, B=-13) 16=-96(F=-48, B=-48)

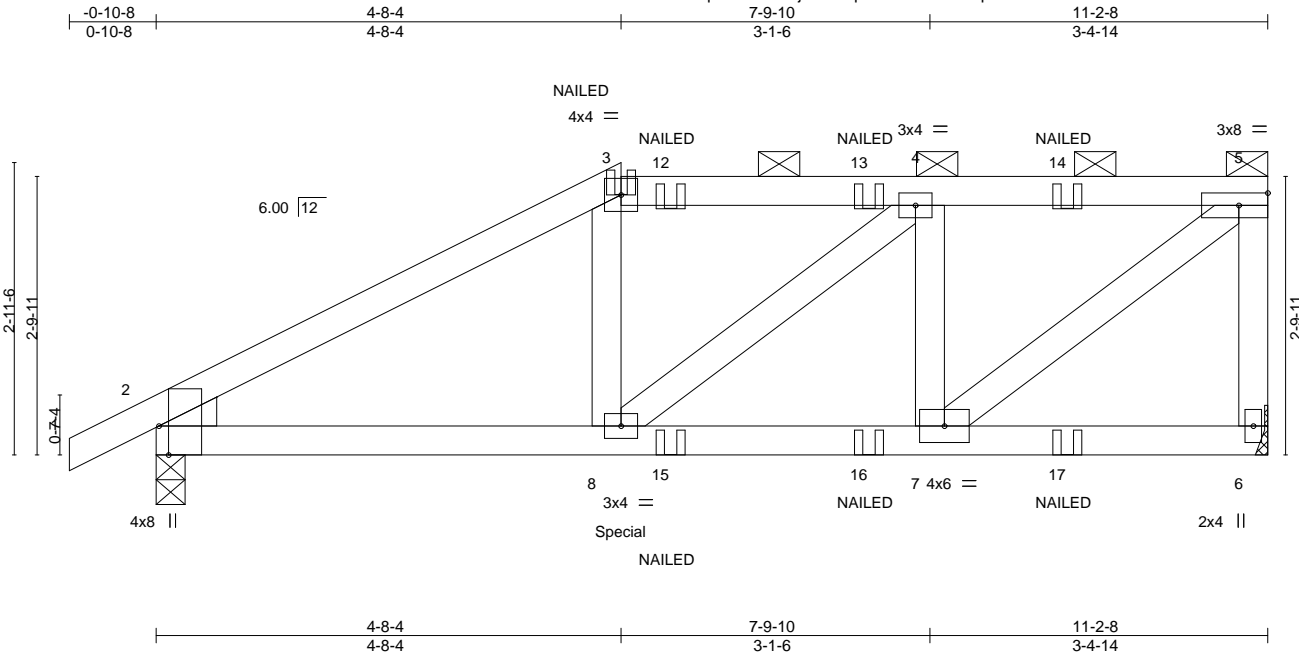


Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736354
2531735	D1	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:36 2020 Page 1

ID:VPVqvFnP0P0b1j2ZrLOqezdKbx-3WMrBqhUBk0Gon5H2zGhHc1QZQUV?WT874RPqUyGKIT



Scale = 1:23.2

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.54	Vert(LL) -0.05	7-8	>999	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.79	Vert(CT) -0.08	7-8	>999	180		
TCDL 20.0	Rep Stress Incr NO	WB 0.41	Horz(CT) 0.02	6	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MS						
BCDL 10.0							Weight: 44 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 WEDGE  
 Left: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 6=Mechanical, 2=0-3-8  
 Max Horz 2=82(LC 54)  
 Max Uplift 6=89(LC 9), 2=-81(LC 12)  
 Max Grav 6=1280(LC 33), 2=1353(LC 34)

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

TOP CHORD 2-3=-1981/135, 3-4=-1659/140, 4-5=-1364/98, 5-6=-1230/102  
 BOT CHORD 2-8=-141/1670, 7-8=-114/1364  
 WEBS 3-8=-6/347, 4-8=-53/467, 4-7=-833/128, 5-7=-123/1683

#### 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=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 6 and 81 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 470 lb down and 55 lb up at 4-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



November 23, 2020

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736354
2531735	D1	Half Hip Girder	1	1	Job Reference (optional)	

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-80, 3-5=-80, 6-9=-20

Concentrated Loads (lb)

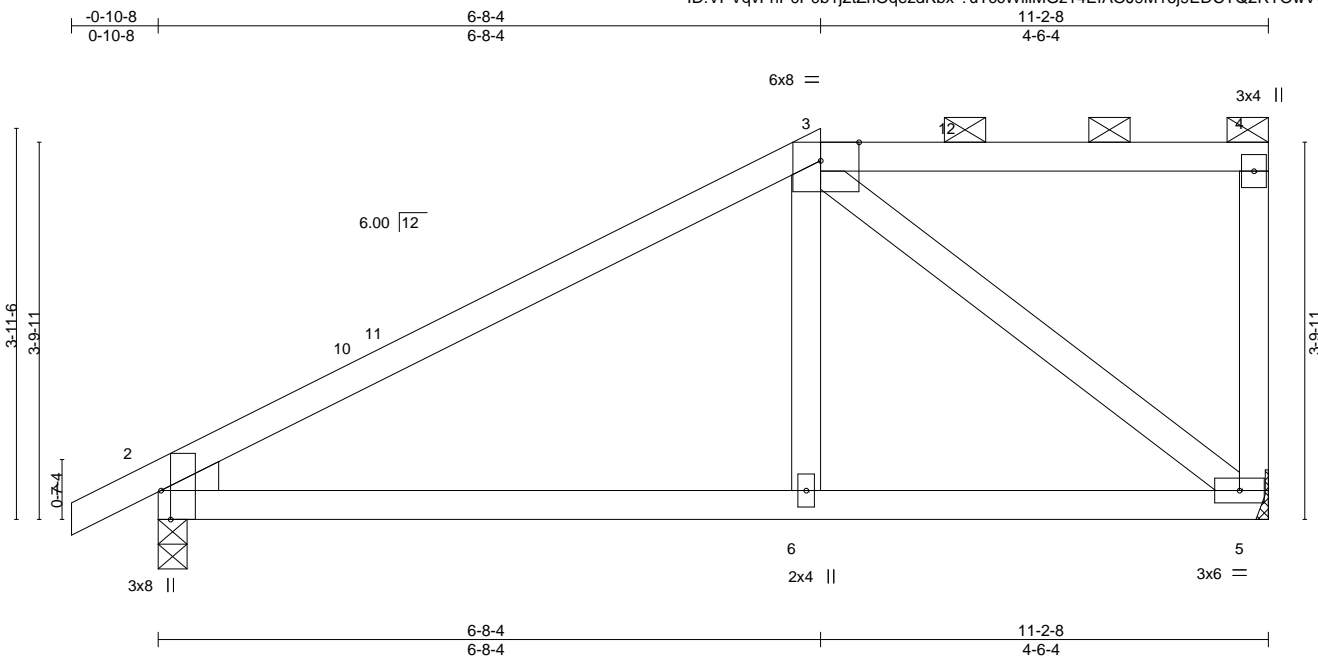
Vert: 3=-142(F) 8=-470(F) 12=-142(F) 13=-142(F) 14=-142(F) 15=-58(F) 16=-58(F) 17=-58(F)

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736355
2531735	D2	Half Hip	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:38 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-?uTccWiliMGz14EfAOJ9M16j9EDCTQ2RTOWvVMyGKIR



Scale = 1:23.3

Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-4-10,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.08 6-9 >999 240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.15 6-9 >905 180		
TCDL	20.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.03 2 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 42 lb	FT = 20%
BCDL	10.0								

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 5=Mechanical  
Max Horz 2=114(LC 15)  
Max Uplift 2=-30(LC 16), 5=-39(LC 13)  
Max Grav 2=832(LC 38), 5=640(LC 37)

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

TOP CHORD 2-3=-797/162  
BOT CHORD 2-6=-237/575, 5-6=-238/567  
WEBS 3-6=0/263, 3-5=-732/254

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-8-4, Exterior(2E) 6-8-4 to 11-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 2 and 39 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23,2020

**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/TPI 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	Summit/15 Woodside	143736356
2531735	D3	Half Hip	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:39 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-T51\_psjNTfOqfEpsk6qOuEf\_pdcxWfai2f3RpyGKIQ

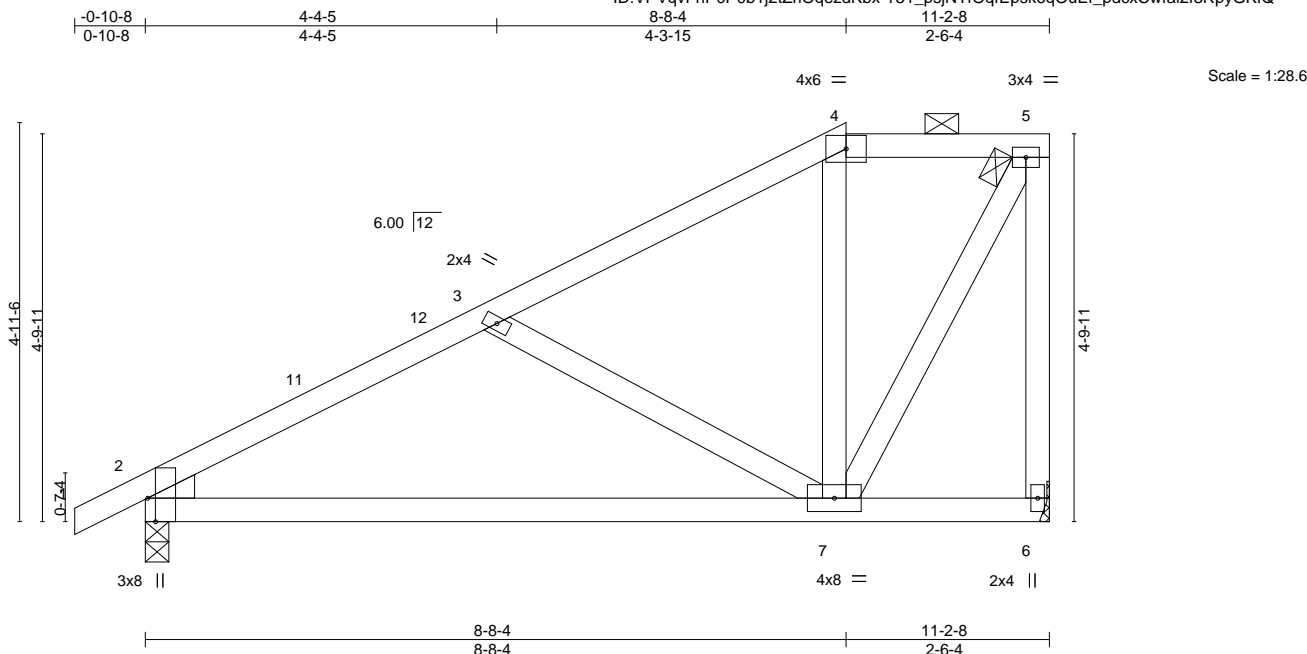


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.34	Vert(LL)	-0.09	7-10	>999	240	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.43	Vert(CT)	-0.18	7-10	>748	180		
TCDL 20.0	Lumber DOL 1.15	WB 0.26	Horz(CT)	0.01	6	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 49 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 6=Mechanical, 2=0-3-8  
Max Horz 2=145(LC 15)  
Max Uplift 6=40(LC 13), 2=31(LC 16)  
Max Grav 6=631(LC 38), 2=875(LC 38)

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

TOP CHORD 2-3=-1043/186, 3-4=-502/116, 4-5=-342/133, 5-6=-638/214  
BOT CHORD 2-7=-340/865  
WEBS 3-7=-604/210, 5-7=-224/701

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-8-4, Exterior(2E) 8-8-4 to 11-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 6 and 31 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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/TPI 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	Summit/15 Woodside	143736357
2531735	D4	Half Hip	2	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:40 2020 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-xHbM0Ck?EzWhGOO2HpLdRSB6R1\_RxGckwiPczFyGKIP

0-10-8 5-4-5 10-8-4 11-2-8  
0-10-8 5-4-5 5-3-15 0-6-4

6x8 =

Scale = 1:34.8

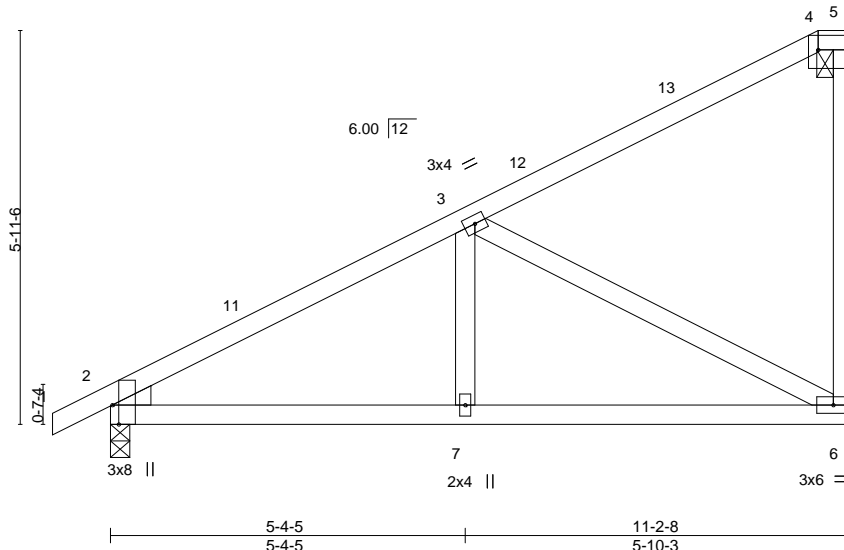


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [4:Edge,0-2-10], [4:0-0-0,0-1-12], [5:0-1-12,0-0-0]

<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.03	6-7	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	6-7	>999	180		
TCDL	20.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 45 lb	FT = 20%
BCDL	10.0											

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 6=Mechanical  
Max Horz 2=181(LC 15)  
Max Uplift 2=-28(LC 16), 6=-51(LC 16)  
Max Grav 2=892(LC 38), 6=752(LC 38)

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

TOP CHORD 2-3=-1057/152, 5-6=-268/151  
BOT CHORD 2-7=-289/850, 6-7=-289/850  
WEBS 3-6=-922/242

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-8-4, Exterior(2E) 10-8-4 to 11-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 2 and 51 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23,2020

**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	Summit/15 Woodside	143736358
2531735	D5	Jack-Closed	7	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:41 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-PT9kEXld?HeYuYzErXss\_fkJhRKsgmdt9M89WhyGKIO



Scale = 1:34.5

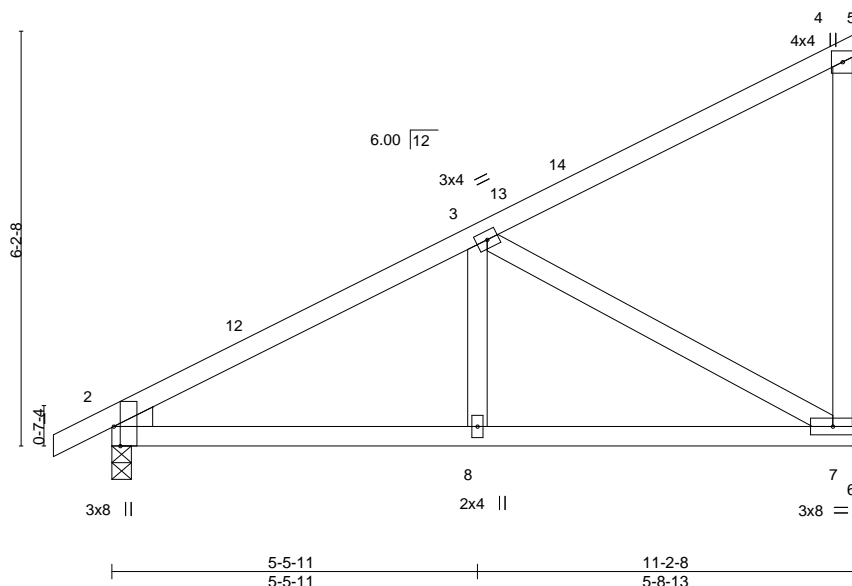


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	2-0-0	TC	0.45				MT20	197/144
Snow (Pf)	20.0	Plate Grip DOL	BC	0.27					
TCDL	20.0	Lumber DOL	WB	0.48					
BCLL	0.0	Rep Stress Incr	Matrix-AS						
BCDL	10.0	Code IRC2018/TPI2014							
								Weight: 45 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=0-3-8, 7=Mechanical  
Max Horz 2=186(LC 15)  
Max Uplift 2=-25(LC 16), 7=-57(LC 16)  
Max Grav 2=683(LC 2), 7=707(LC 23)

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

TOP CHORD 2-3=-801/149, 4-7=-298/161  
BOT CHORD 2-8=-272/656, 7-8=-272/656  
WEBS 3-7=-715/228

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 11-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 2 and 57 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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	Summit/15 Woodside	143736359
2531735	E1	Roof Special	2	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:42 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-ugj6RtlFmamPWiyRPEN5WtHXkrfUPG90O0uj27yGKIN



Scale = 1:23.7

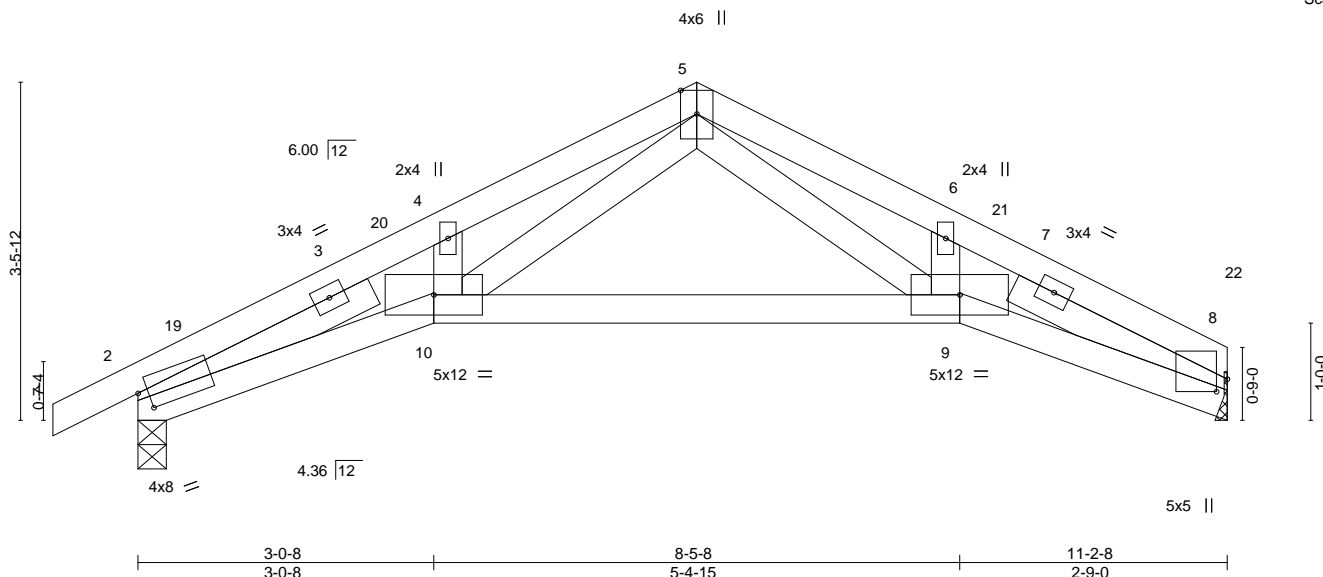


Plate Offsets (X,Y)-- [2:0-1-4,0-2-5], [8:0-1-9,0-1-5]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.24				MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.37					
TCDL	20.0	Rep Stress Incr	YES	WB	0.27					
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS						
BCDL	10.0								Weight: 43 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 2-8-1, Right 2x4 SPF No.2 2-5-5

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 8=Mechanical, 2=0-3-8  
Max Horz 2=41(LC 16)  
Max Uplift 8=18(LC 17), 2=28(LC 16)  
Max Grav 8=644(LC 24), 2=718(LC 23)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1837/533, 4-5=-1829/606, 5-6=-1713/548, 6-8=-1765/489  
BOT CHORD 2-10=-455/1714, 9-10=-184/801, 8-9=-389/1605  
WEBS 5-10=-337/1107, 5-9=-289/986

- 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 1-10-3, Interior(1) 1-10-3 to 5-9-0, Exterior(2R) 5-9-0 to 8-9-0, Interior(1) 8-9-0 to 11-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - Refer to girder(s) for truss to truss connections.
  - 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 18 lb uplift at joint 8 and 28 lb uplift at joint 2.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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 2531735	Truss E2	Truss Type Roof Special	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736360
----------------	-------------	----------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:43 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-MsHVfDmtXuuG7r7dzyuK34piMFz48jGAcgdGaayGKIM



Scale = 1:22.9

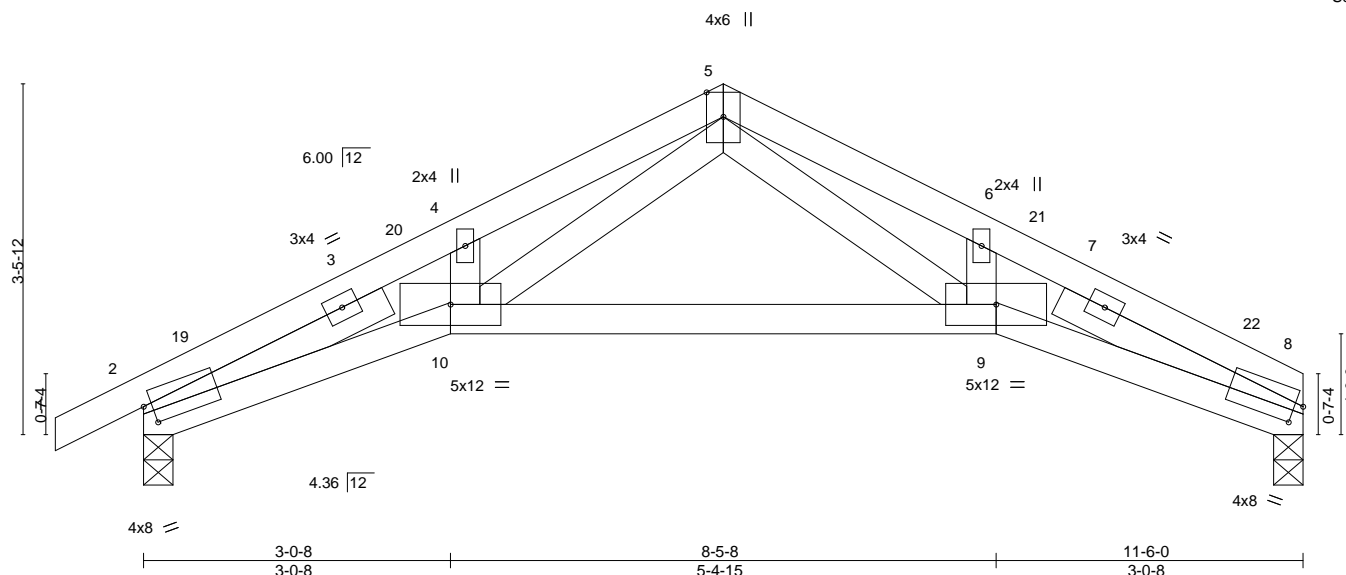


Plate Offsets (X,Y)-- [2:0-1-0,0-2-5], [8:0-1-0,0-2-5]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) -0.06	9-10	>999	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.41	Vert(CT) -0.17	9-10	>820	180		
TCDL 20.0	Rep Stress Incr YES	WB 0.28	Horz(CT) 0.09	8	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS						
BCDL 10.0							Weight: 44 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 2-8-1, Right 2x4 SPF No.2 2-8-1

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 8=0-3-8, 2=0-3-8  
Max Horz 2=38(LC 20)  
Max Uplift 8=20(LC 17), 2=28(LC 16)  
Max Grav 8=657(LC 24), 2=731(LC 23)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1888/533, 4-5=-1874/604, 5-6=-1899/582, 6-8=-1917/524  
BOT CHORD 2-10=-446/1759, 9-10=-182/845, 8-9=-420/1789  
WEBS 5-9=-322/1142, 5-10=-328/1116

- 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 1-10-3, Interior(1) 1-10-3 to 5-9-0, Exterior(2R) 5-9-0 to 8-9-0, Interior(1) 8-9-0 to 11-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - Bearing at joint(s) 8, 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 20 lb uplift at joint 8 and 28 lb uplift at joint 2.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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



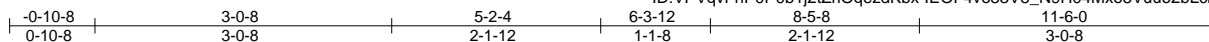
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736361
2531735	E3	Hip Girder	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:45 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-IEOF4vo83V8\_N9H04Mxo8Vuu02bLcbqT4\_6NfSyGKIK



Scale = 1:23.6

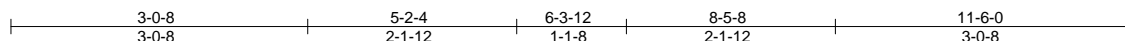
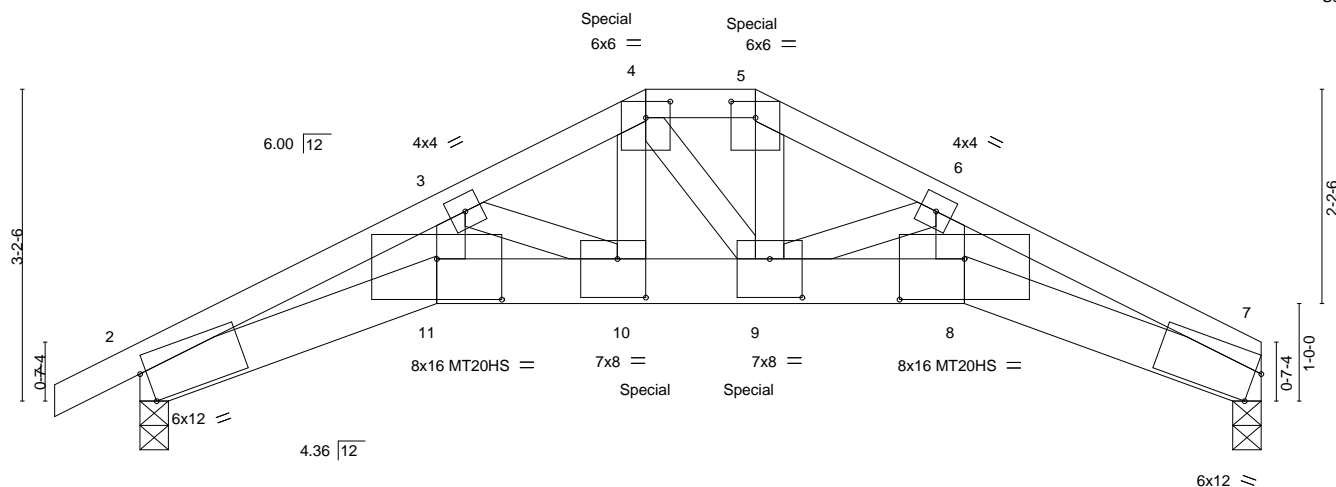


Plate Offsets (X,Y)-- [2:0-0-13,Edge], [4:0-3-0,0-2-0], [5:0-3-0,0-2-0], [7:0-0-13,Edge], [8:0-8-0,0-5-0], [9:0-4-0,0-4-12], [10:0-3-8,0-4-12], [11:0-8-0,0-5-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/def	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.89	Vert(LL) -0.16	10	>870	240	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.68	Vert(CT) -0.28	10	>498	180	MT20HS	148/108
TCDL 20.0	Lumber DOL 1.15	WB 0.34	Horz(CT) 0.20	7	n/a	n/a		
BCLL 0.0	Rep Stress Incr NO	Matrix-MS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 48 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x6 SPF 2100F 1.8E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-6-15 oc purlins, except  
2-0-0 oc purlins (2-11-8 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 7=0-3-8, 2=0-3-8  
Max Horz 2=35(LC 60)  
Max Uplift 7=148(LC 13), 2=156(LC 12)  
Max Grav 7=1631(LC 37), 2=1743(LC 37)

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

TOP CHORD 2-3=-5348/542, 3-4=-4082/443, 4-5=-3584/390, 5-6=-4144/441, 6-7=-5384/513  
BOT CHORD 2-11=-489/4778, 10-11=-461/4512, 9-10=-351/3534, 8-9=-412/4547, 7-8=-436/4816  
WEBS 3-11=-71/858, 3-10=-952/108, 4-10=-145/1310, 5-9=-141/1384, 6-9=-930/95, 6-8=-56/843

#### 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=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Bearing at joint(s) 7, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 148 lb uplift at joint 7 and 156 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 263 lb down and 81 lb up at 5-2-4, and 263 lb down and 81 lb up at 6-3-12 on top chord, and 621 lb down and 107 lb up at 5-2-4, and 639 lb down and 109 lb up at 6-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

Continued on page 2



November 23, 2020

**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	Summit/15 Woodside	I43736361
2531735	E3	Hip Girder	1	1	Job Reference (optional)	

**LOAD CASE(S)**
Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-80, 4-5=-80, 5-7=-80, 11-15=-20, 8-11=-20, 8-12=-20
Concentrated Loads (lb)
Vert: 5=-235(B) 10=-621(B) 4=-235(B) 9=-639(B)

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736362
2531735	F1	Roof Special Girder	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:48 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-ip4Oixq0MQWZEd?alVUVm8WNsGYCpvVvmyL1GnyGKIH

0-10-8	4-2-0	7-6-4	11-0-4	15-0-8	17-0-8	19-0-8	22-1-5	25-2-8	26-1-0
0-10-8	4-2-0	3-4-4	3-6-0	4-0-4	2-0-0	2-0-0	3-0-13	3-1-3	0-10-8

Scale = 1:45.4

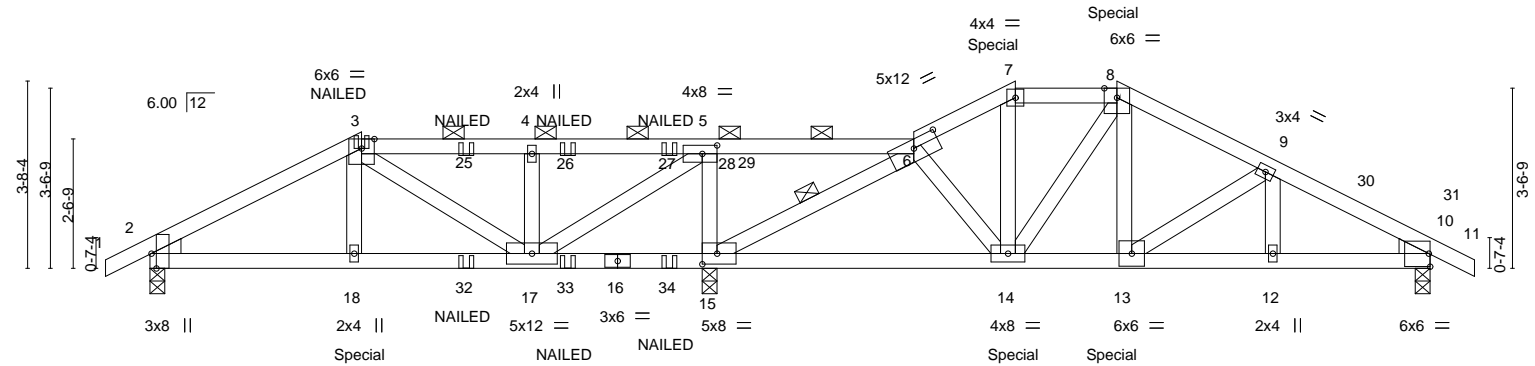


Plate Offsets (X, Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [5:0-3-8,0-2-0], [6:0-6-0,0-2-0], [10:Edge,0-3-1], [10:0-5-0,0-0-3], [10:0-0-3,0-0-1], [15:0-3-8,0-2-8]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL (roof)	25.0	Plate Grip DOL	1.15
Snow (Pf)	20.0	Lumber DOL	1.15
TCDL	20.0	Rep Stress Incr	NO
BCLL	0.0	Code	IRC2018/TPI2014
BCDL	10.0		
		<b>CSI.</b>	
		TC	0.90
		BC	0.99
		WB	0.54
		Matrix-MS	
		<b>DEFL.</b>	
		Vert(LL)	-0.06 12-13 >999 240
		Vert(CT)	-0.12 12-13 >999 180
		Horz(CT)	0.04 10 n/a n/a
		<b>PLATES</b>	MT20
		<b>GRIP</b>	197/144
		Weight:	103 lb
		FT =	20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 15=0-3-8 (req. 0-5-10), 10=0-3-8  
Max Horz 2=-37(LC 10)  
Max Uplift 2=-58(LC 12), 15=-236(LC 12), 10=-107(LC 13)  
Max Grav 2=863(LC 42), 15=3580(LC 41), 10=1658(LC 42)

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

TOP CHORD 2-3=-1049/90, 5-6=-88/1591, 6-7=-2105/178, 7-8=-1825/163, 8-9=-2373/198,  
9-10=-2518/179  
BOT CHORD 2-18=-66/864, 17-18=-66/833, 15-17=-1589/132, 14-15=-92/1392, 13-14=-108/2052,  
12-13=-119/2158, 10-12=-119/2158  
WEBS 3-18=0/502, 3-17=-917/69, 4-17=-540/93, 5-17=-149/2070, 5-15=-1715/165,  
6-15=-3416/241, 6-14=-33/791, 7-14=-20/537, 8-14=-427/48, 8-13=-48/865,  
9-13=-317/183

#### 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=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 2, 236 lb uplift at joint 15 and 107 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.



November 23,2020

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/TPI 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	Summit/15 Woodside
2531735	F1	Roof Special Girder	1	1	I43736362
Job Reference (optional)					

- NOTES-**
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 248 lb down and 83 lb up at 17-0-8, and 248 lb down and 83 lb up at 19-0-8 on top chord, and 407 lb down and 52 lb up at 4-2-0, and 720 lb down and 72 lb up at 17-0-8, and 720 lb down and 72 lb up at 18-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 14) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-80, 3-6=-80, 6-7=-80, 7-8=-80, 8-11=-80, 19-22=-20

Concentrated Loads (lb)

Vert: 3=-114(B) 7=-220(B) 8=-220(B) 18=-407(B) 14=-720(B) 13=-720(B) 25=-114(B) 26=-114(B) 27=-114(B) 32=-49(B) 33=-49(B) 34=-49(B)

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736363
2531735	F2	Roof Special	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:50 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-fCC87csGu2mHTw9ztwWzrZcmM3KzHtSCDGq8KgyGKIF

-0-10-8	6-2-0	11-0-4	11-7-4	17-0-8	18-0-8	25-2-8	26-1-0
0-10-8	6-2-0	4-10-4	0-7-0	5-5-4	1-0-0	7-2-0	0-10-8

Scale = 1:44.6

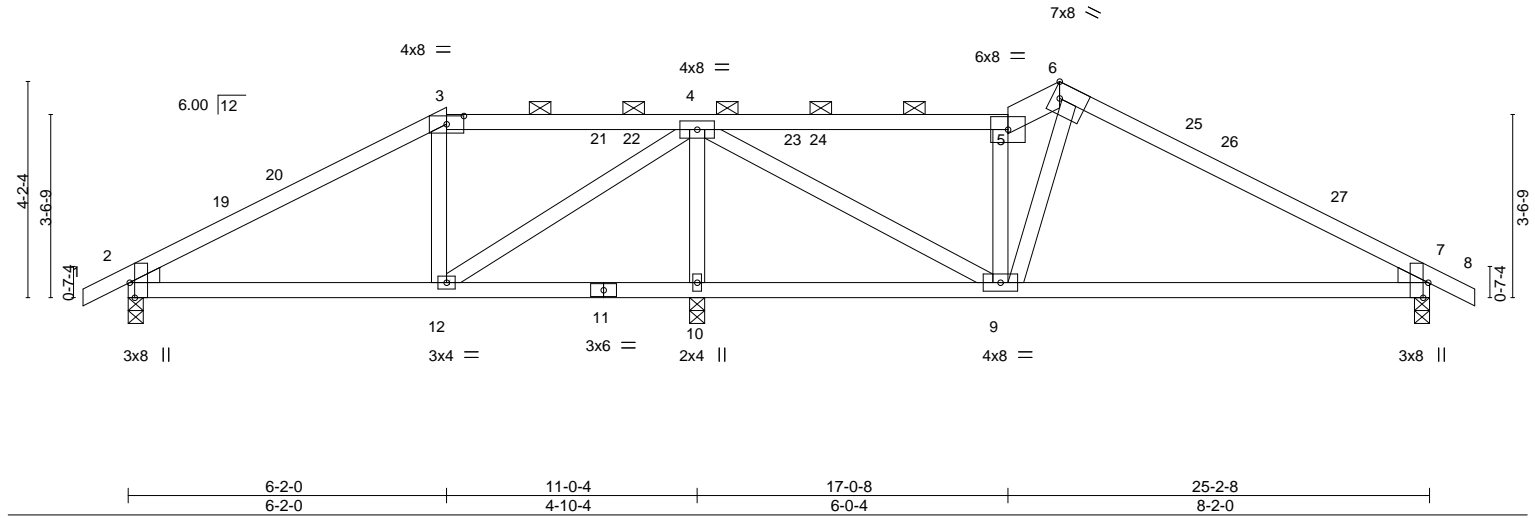


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [3:0-4-0,0-1-15], [7:0-0-1,0-0-3], [7:0-0-3,0-5-0], [7:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.09 9-18 >999 240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.22 9-18 >767 180		
TCDL	20.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.02 2 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 92 lb	FT = 20%
BCDL	10.0								

**LUMBER-**  
TOP CHORD 2x4 SPF No.2 \*Except\*  
5-6: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (5-3-13 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-8, 7=0-3-8, 10=0-3-8  
Max Horz 2=44(LC 14)  
Max Uplift 2=48(LC 16), 7=52(LC 17), 10=56(LC 16)  
Max Grav 2=836(LC 44), 7=864(LC 24), 10=1589(LC 43)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-844/167, 3-4=-636/194, 4-5=-897/219, 5-6=-1044/245, 6-7=-1014/200  
BOT CHORD 2-12=-67/627, 7-9=-85/794  
WEBS 5-9=-932/171, 6-9=-88/666, 4-10=-1495/210, 4-12=-64/621, 4-9=-95/932

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-2-0, Exterior(2R) 6-2-0 to 9-2-0, Interior(1) 9-2-0 to 18-0-8, Exterior(2R) 18-0-8 to 21-0-8, Interior(1) 21-0-8 to 26-1-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 2, 52 lb uplift at joint 7 and 56 lb uplift at joint 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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	Summit/15 Woodside	143736364
2531735	F3	Half Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:52 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-bbKuYltXPf1\_iEJM\_LZRw\_hBet3MlitVhaJFPYyGKID

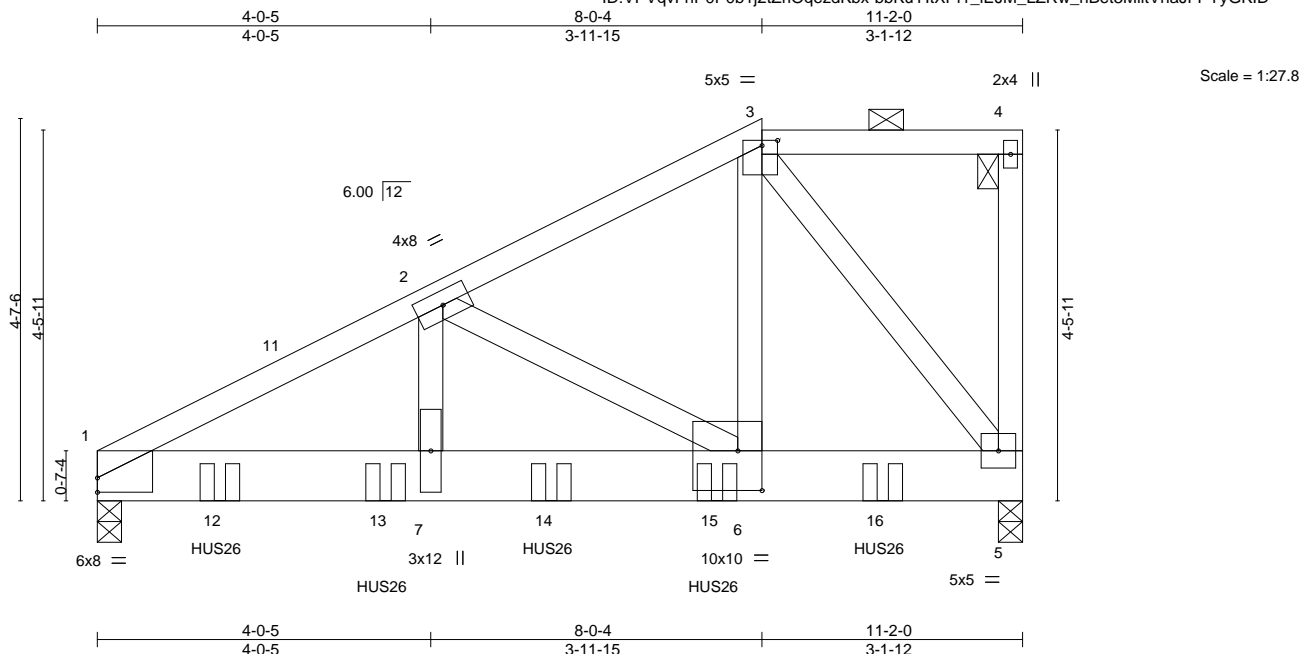


Plate Offsets (X,Y)-- [1:0-0-0,0-2-1], [3:0-2-4,0-0-12], [6:0-3-8,0-5-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.40	Vert(LL) -0.05	6-7	>999	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.10	6-7	>999	180		
TCDL 20.0	Rep Stress Incr NO	WB 0.64	Horz(CT) 0.02	5	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MS						
BCDL 10.0							Weight: 137 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SPF No.2

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

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
Max Horz 1=125(LC 53)  
Max Uplift 1=191(LC 12), 5=220(LC 9)  
Max Grav 1=5151(LC 33), 5=4786(LC 33)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-7510/304, 2-3=-3619/172  
BOT CHORD 1-7=-299/6663, 6-7=-299/6663, 5-6=-157/2974  
WEBS 2-7=-97/3289, 2-6=-4012/196, 3-6=-216/5215, 3-5=-4971/222

- 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 0-7-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 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=4.2psf; h=20ft; 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
  - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 1 and 220 lb uplift at joint 5.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-5-12 from the left end to 3-5-12 to connect truss(es) to front face of bottom chord.
  - Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 5-5-12 from the left end to 9-5-12 to connect truss(es) to front face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.



November 23, 2020

LOAD CASE(S) Standard

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

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/TPI 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	Summit/15 Woodside	I43736364
2531735	F3	Half Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:52 2020 Page 2
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-bbKuYltXPf1\_iEJM\_LZRw\_hBet3MlitVhaJFPYyGKID

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-80, 3-4=-80, 5-8=-20

Concentrated Loads (lb)

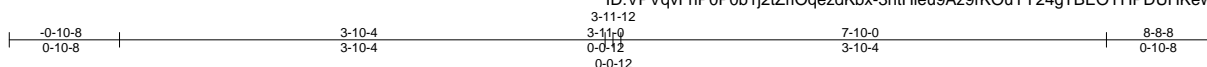
Vert: 12=-1791(F) 13=-1834(F) 14=-1654(F) 15=-1654(F) 16=-1654(F)

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736365
2531735	G1	Hip Girder	1	1		
Job Reference (optional)						

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:53 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-3ntHleu9Az9rKOUYY24gTBEOYHPDUHKewE2ox?yGKIC



Scale = 1:18.3

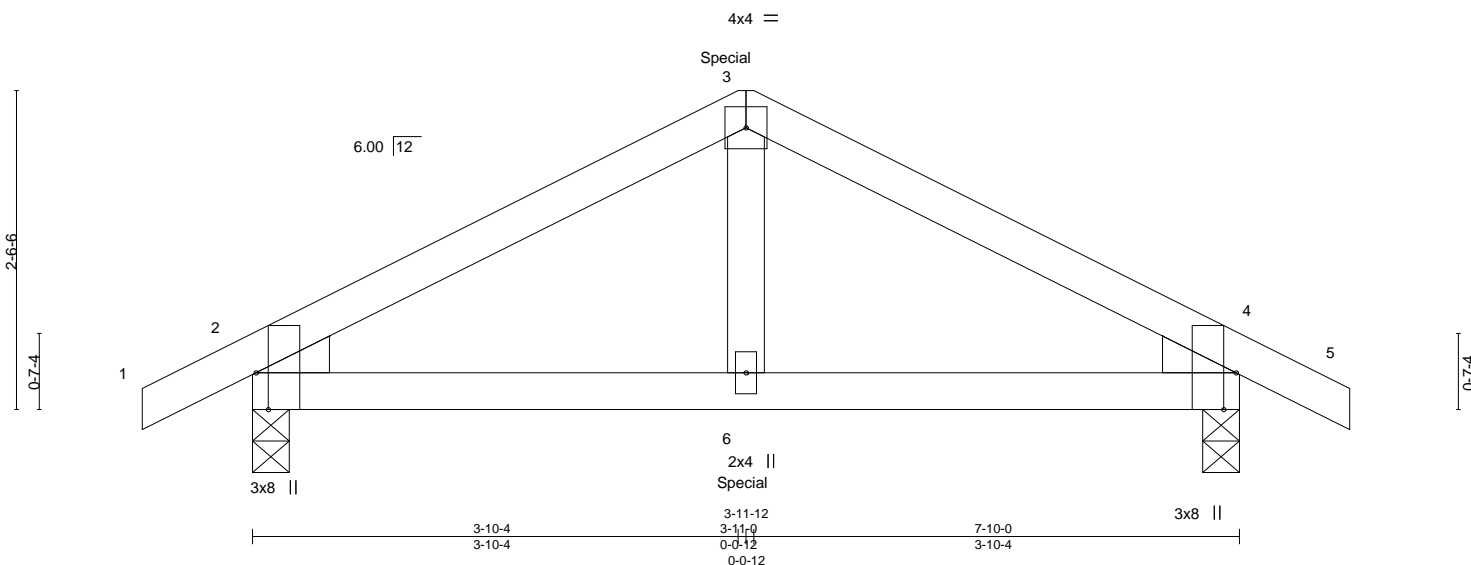


Plate Offsets (X, Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	2-0-0	TC	0.26				MT20	197/144
Snow (Pf)	20.0	Plate Grip DOL	BC	0.36					
TCDL	20.0	Lumber DOL	WB	0.11					
BCLL	0.0	Rep Stress Incr	Matrix-MP						
BCDL	10.0	Code IRC2018/TPI2014							
								Weight: 25 lb	FT = 20%

#### LUMBER-

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

Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=-26(LC 10)  
Max Uplift 2=-44(LC 12), 4=-45(LC 13)  
Max Grav 2=886(LC 19), 4=888(LC 20)

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

TOP CHORD 2-3=-1097/69, 3-4=-1101/68  
BOT CHORD 2-6=-29/898, 4-6=-29/898  
WEBS 3-6=-1/468

#### 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=4.2psf; h=20ft; 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2 and 45 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 218 lb down and 90 lb up at 3-11-0 on top chord, and 436 lb down and 58 lb up at 3-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-80, 3-5=-80, 7-10=-20



November 23, 2020

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736365
2531735	G1	Hip Girder	1	1	Job Reference (optional)	

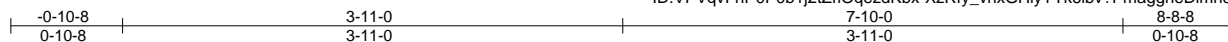
**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 6=-436(F) 3=-218(F)



Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736366
2531735	G2	Common	3	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:54 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-XzRfy\_vnxGHiyYTk6lbv?PmagneDlmm8uoLTRYGKIB



Scale = 1:18.0

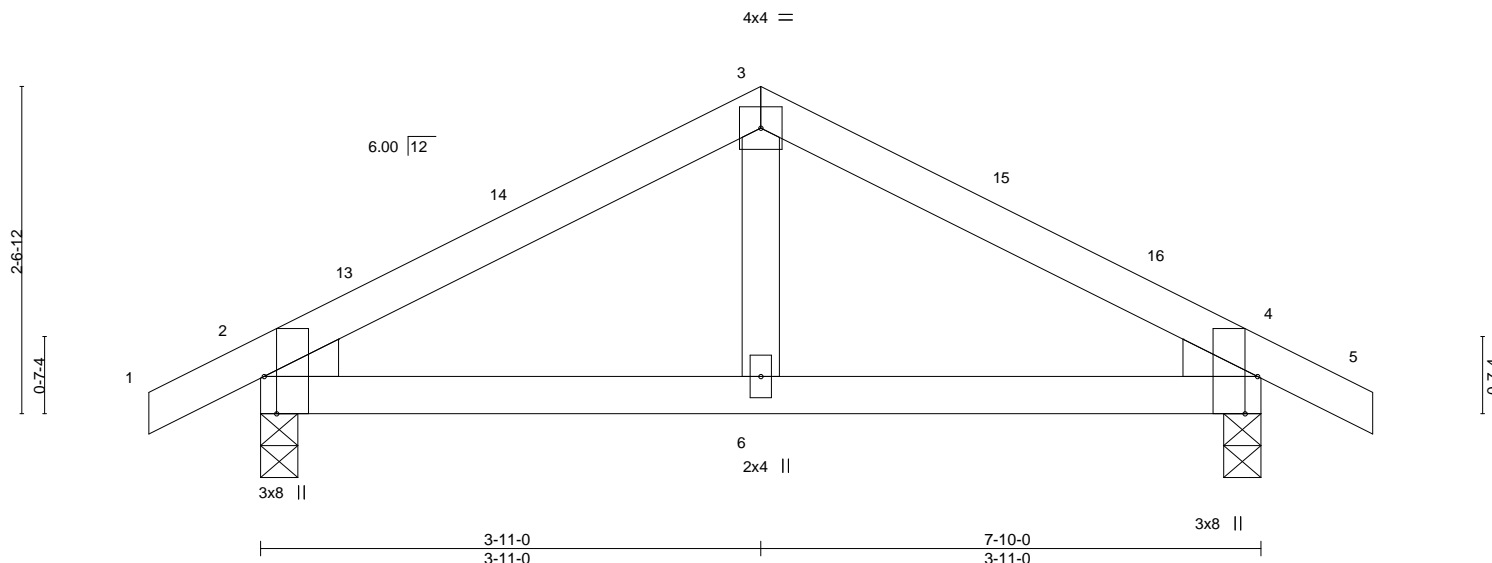


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>			<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC 0.24	in	(loc)	l/defl	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC 0.22	Vert(LL)	-0.01	6-9	>999	
TCDL	20.0	Rep Stress Incr	YES	WB 0.04	Vert(CT)	-0.02	6-9	>999	
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS	Horz(CT)	0.01	2	n/a	
BCDL	10.0								
								Weight: 25 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-8, 4=0-3-8  
Max Horz 2=-26(LC 14)  
Max Uplift 2=-22(LC 16), 4=-22(LC 17)  
Max Grav 2=563(LC 23), 4=563(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-504/210, 3-4=-504/210  
BOT CHORD 2-6=-77/383, 4-6=-77/383

- 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior(1) 6-11-0 to 8-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 2 and 22 lb uplift at joint 4.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23,2020

**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



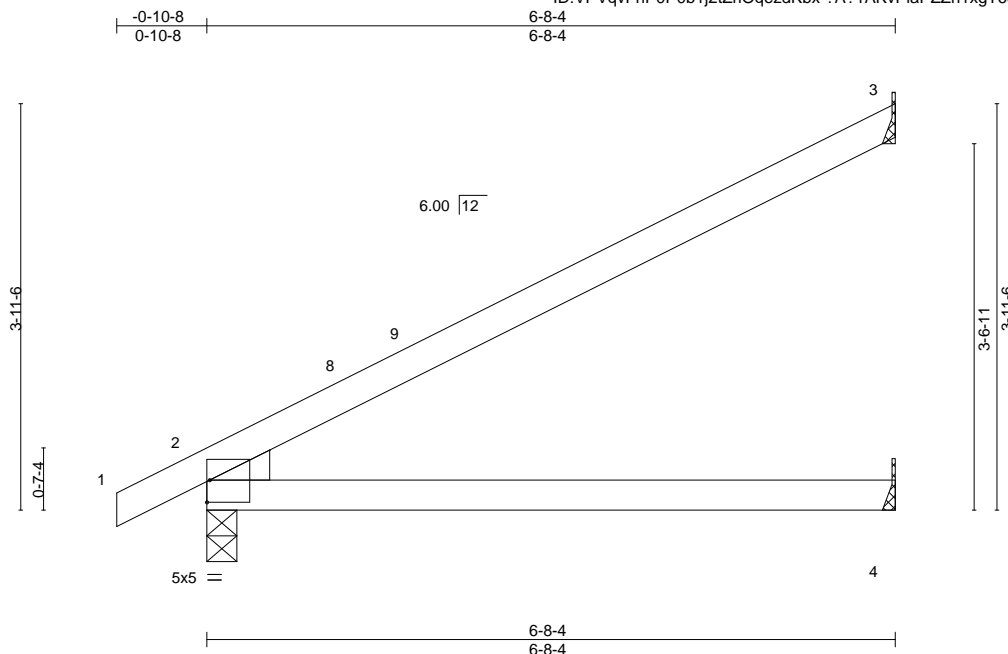
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss J1	Truss Type Jack-Open	Qty 5	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736367
----------------	-------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:55 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-?A?1AKvPiaPZZh1xgT68YcJa?40DyCcxNXXv?tyGKIA



Scale = 1:22.4

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.90	Vert(LL)	-0.13	4-7	>600	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.65	Vert(CT)	-0.28	4-7	>288	180		
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.05	2	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS							
BCDL 10.0								Weight: 18 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=99(LC 16)  
Max Uplift 3=59(LC 16), 2=4(LC 16)  
Max Grav 3=326(LC 23), 2=472(LC 23), 4=129(LC 7)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCDL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 3 and 4 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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



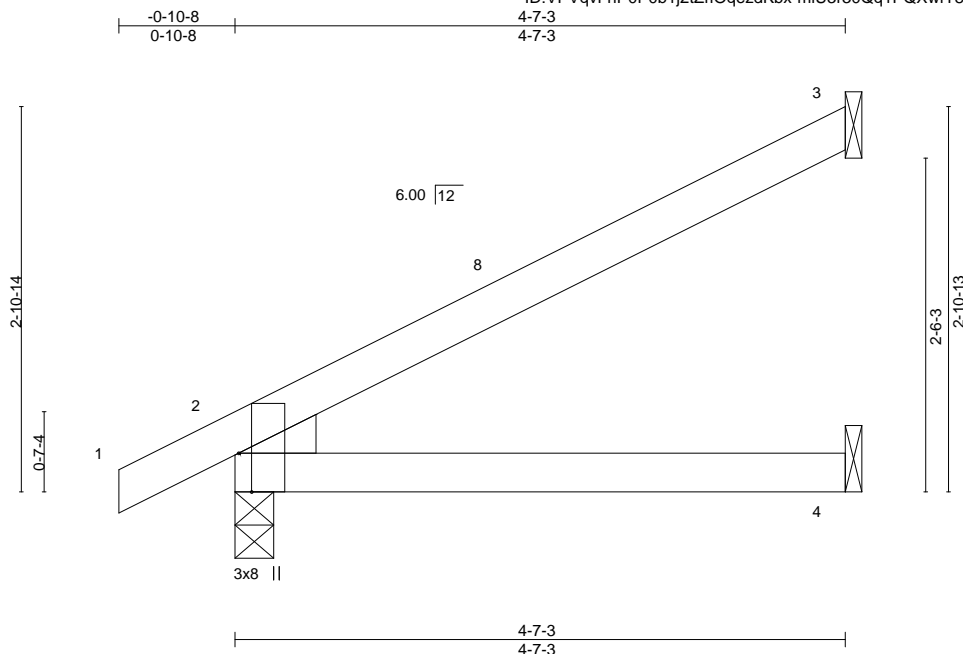
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss J2	Truss Type Jack-Open	Qty 3	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736368
----------------	-------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:03 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-miU3r30Qq1PQXwfT88F0tle3qJqHqpb6DnTKHqyGKI2



Scale = 1:17.4

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.03	4-7	>999	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.06	4-7	>839	180		
TCDL 20.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL 0.0	Code	IRC2018/TPI2014	Matrix-AS						Weight: 13 lb	FT = 20%
BCDL 10.0										

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=71(LC 16)  
Max Uplift 3=40(LC 16), 2=5(LC 16)  
Max Grav 3=217(LC 23), 2=411(LC 23), 4=89(LC 7)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 3 and 5 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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



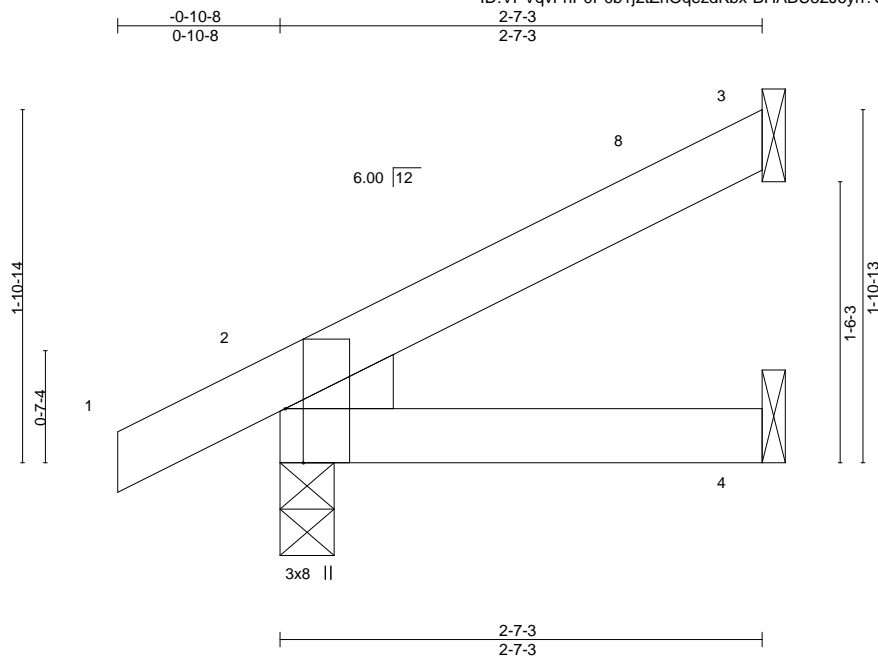
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss J3	Truss Type Jack-Open	Qty 7	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736369
----------------	-------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:06 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-BHABU52J6yn?OON2pHpjUxGfsWve1AKYvli\_ukyGKI?



Scale = 1:12.4

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.10	Vert(LL) -0.00	7	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.08	Vert(CT) -0.01	4-7	>999	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	2	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MP							
BCDL 10.0								Weight: 8 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-3 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=44(LC 16)  
Max Uplift 3=21(LC 16), 2=5(LC 16)  
Max Grav 3=104(LC 23), 2=273(LC 23), 4=49(LC 7)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 3 and 5 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23, 2020

**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



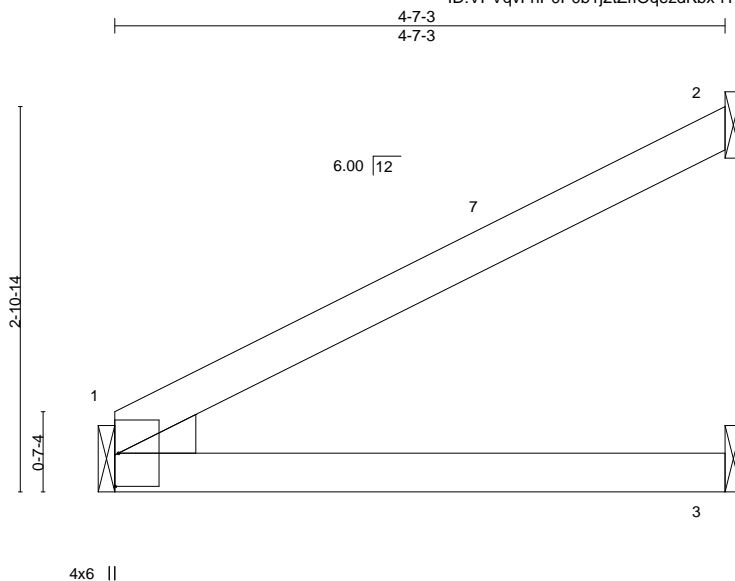
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736370
2531735	J4	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:07 2020 Page 1

ID:VPVqvFnP0P0b1j2tZtOqezdKbx-ftkZhQ3xtGvs0XyEN\_Ky18plbwBfmdai8PRXRByGKI\_



Scale = 1:17.4

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) -0.04	3-6	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.07	3-6	>774	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.02	1	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS							
BCDL 10.0								Weight: 12 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=Mechanical, 3=Mechanical, 1=Mechanical  
Max Horz 1=61(LC 16)  
Max Uplift 2=40(LC 16)  
Max Grav 2=219(LC 22), 3=91(LC 7), 1=299(LC 22)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCDL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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



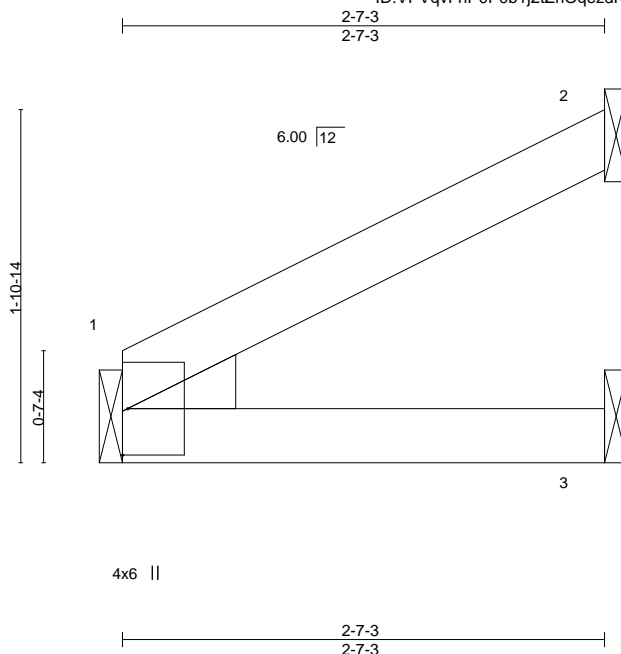
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss J5	Truss Type Jack-Open	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736371
----------------	-------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:07 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-ftkZhQ3xtGvs0XyEN\_Ky18pqRwFRmdai8PRXRByGKI\_



Scale = 1:12.4

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.11	Vert(LL)	-0.00	6	>999	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.11	Vert(CT)	-0.01	3-6	>999	180		
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	1	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MP							
BCDL 10.0								Weight: 7 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-3 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=Mechanical, 3=Mechanical, 1=Mechanical  
Max Horz 1=34(LC 16)  
Max Uplift 2=22(LC 16)  
Max Grav 2=108(LC 22), 3=52(LC 7), 1=157(LC 22)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23,2020

**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



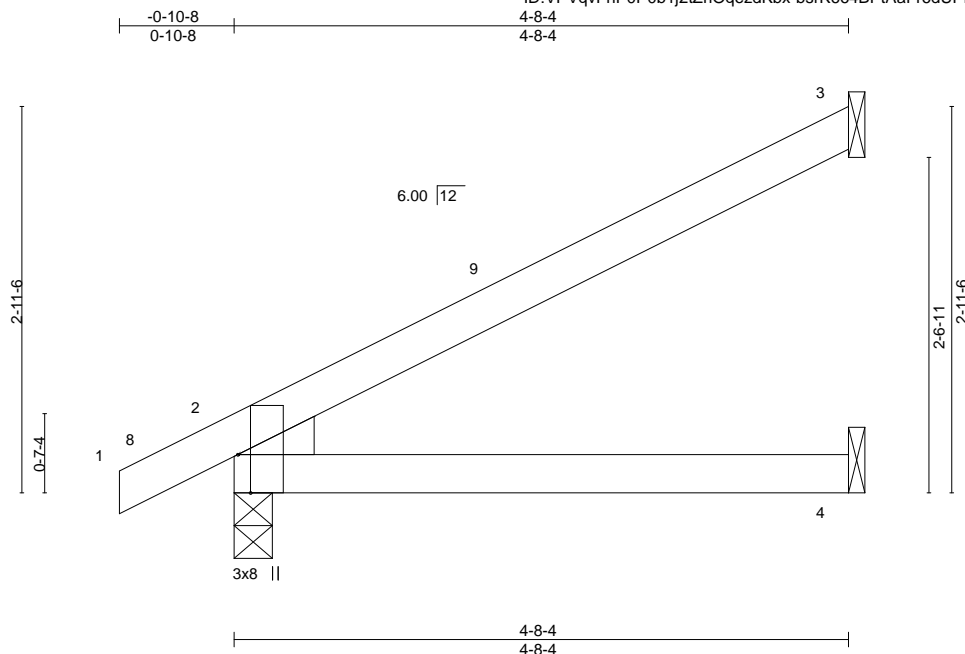


Job 2531735	Truss J7	Truss Type Jack-Open	Qty 8	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736373
----------------	-------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:09 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-bsrK664BPtAaFr6dUPMQ6Zu5zjsMEX4?bjweU3yGKHly



Scale = 1:17.6

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) -0.04	4-7	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.07	4-7	>778	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.02	2	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS							
BCDL 10.0								Weight: 13 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=72(LC 16)  
Max Uplift 3=41(LC 16), 2=5(LC 16)  
Max Grav 3=222(LC 23), 2=403(LC 23), 4=91(LC 7)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCDL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 3 and 5 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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

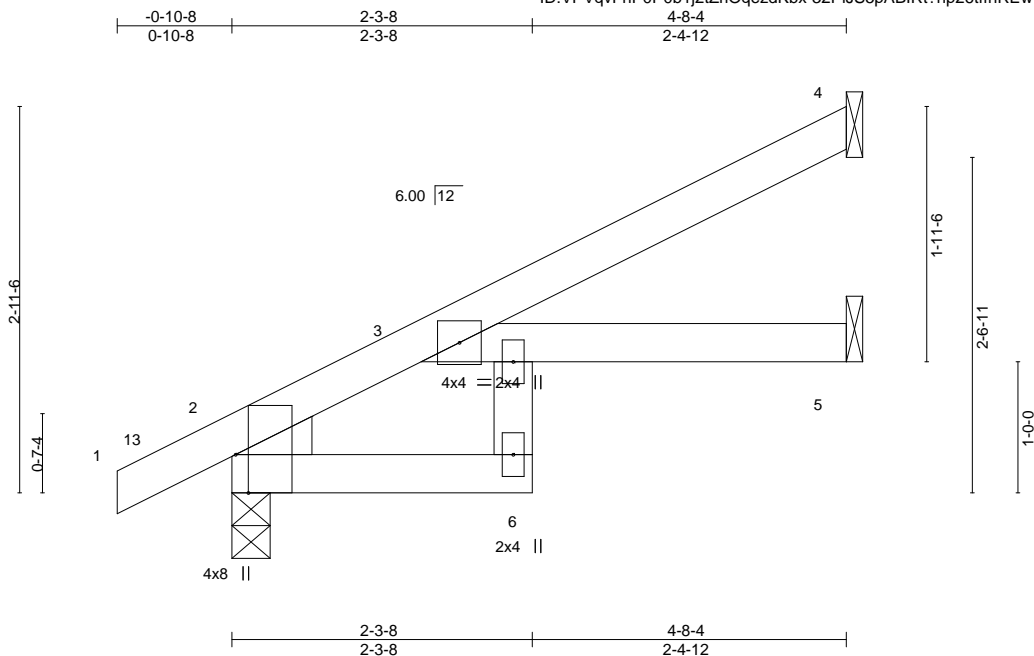
Job 2531735	Truss J8	Truss Type Jack-Open	Qty 4	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736374
----------------	-------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:10 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-32PiJSSpABIRt?hp26tffnREw7Buz\_K8qNgC0WYgKHx



Scale = 1:17.6

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	-0.09	6	>648	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.18	6	>315	180		
TCDL 20.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.06	5	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 15 lb	FT = 20%
BCDL 10.0										

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=72(LC 16)  
Max Uplift 4=31(LC 16), 2=-1(LC 16), 5=-1(LC 16)  
Max Grav 4=197(LC 23), 2=413(LC 23), 5=110(LC 23)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 4-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 4, 1 lb uplift at joint 2 and 1 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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 2531735	Truss J9	Truss Type Jack-Open	Qty 2	Ply 1	Summit/15 Woodside 143736375
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:11 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-XFz4Xo6RxVQIU9G?cqOuB\_zVEXcZiRZi21QlZyyGKHw



Scale = 1:12.4

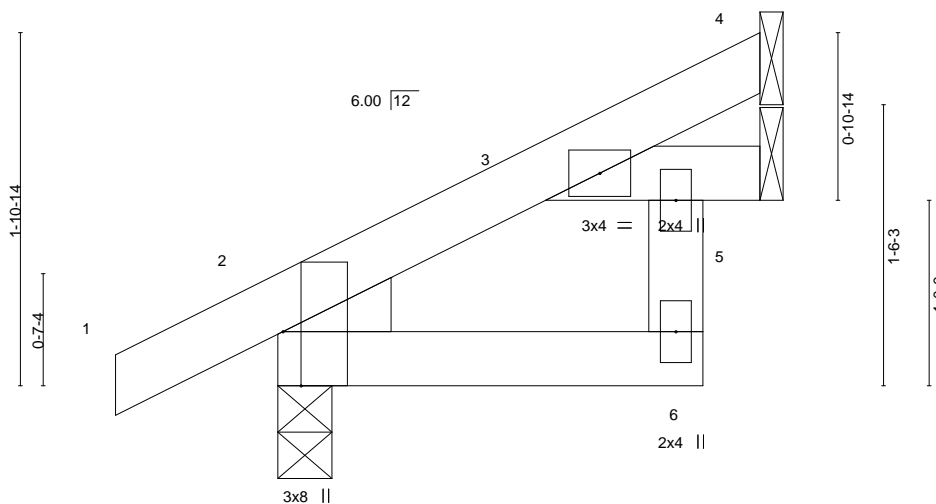


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	I/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.02	6	>999
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.04	6	>693
TCDL	20.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP					
BCDL	10.0								
								<b>PLATES</b>	<b>GRIP</b>
								MT20	197/144
								Weight: 10 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-3 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=44(LC 16)  
Max Uplift 4=10(LC 16), 2=3(LC 16), 5=5(LC 16)  
Max Grav 4=80(LC 23), 2=277(LC 23), 5=78(LC 23)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 2-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCDL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 4, 3 lb uplift at joint 2 and 5 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23, 2020

**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



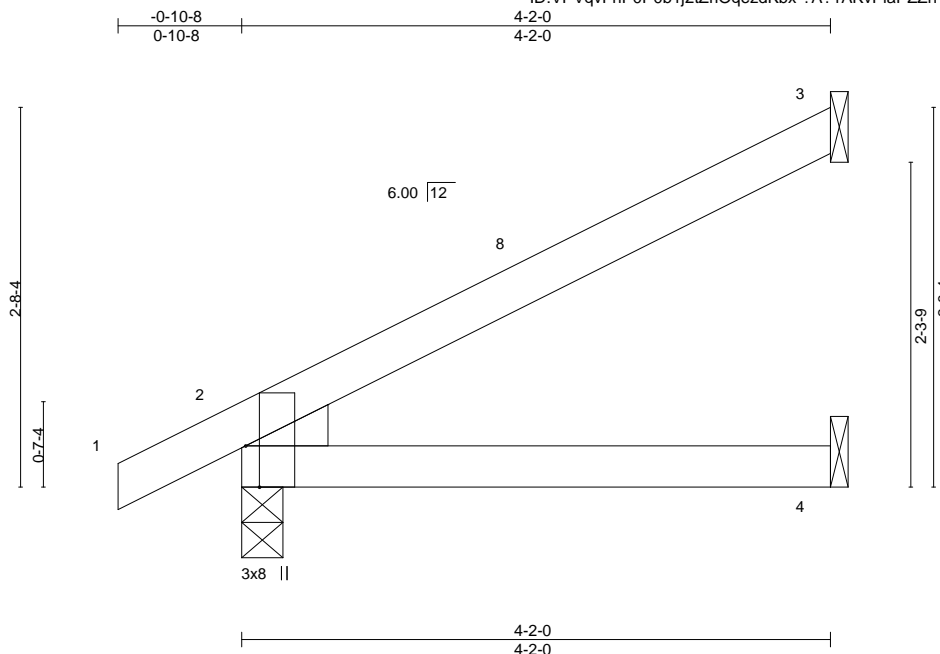
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss J10	Truss Type Jack-Open	Qty 4	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736376
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:55 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-7A?1AKvPiaPZzh1xgT68YcJj746LyCcxNXXv?tyGKIA



Scale = 1:16.3

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.32	Vert(LL) -0.02	4-7	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.26	Vert(CT) -0.04	4-7	>999	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01	2	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS							
BCDL 10.0								Weight: 12 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=65(LC 16)  
Max Uplift 3=36(LC 16), 2=5(LC 16)  
Max Grav 3=194(LC 23), 2=384(LC 23), 4=80(LC 7)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 3 and 5 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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



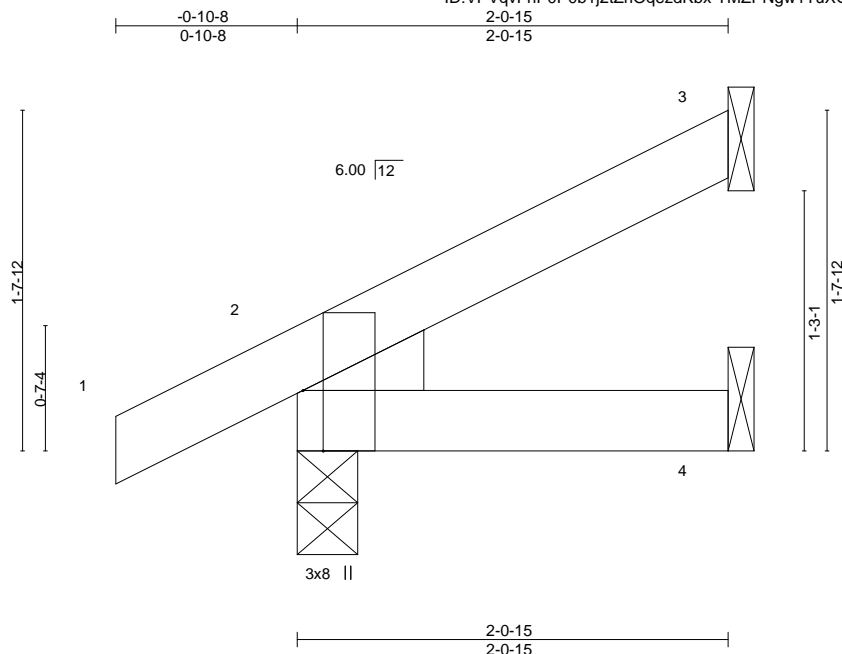
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss J11	Truss Type Jack-Open	Qty 5	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736377
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:56 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-TMZPNgw1TuXQBrc7DAdN5qsyeUVwhfs4cBHSYKyGKI9



Scale = 1:11.1

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	7	>999	180		
TCDL 20.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL 0.0	Code	IRC2018/TPI2014	Matrix-MP							
BCDL 10.0									Weight: 7 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-0-15 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 16)  
Max Uplift 3=16(LC 16), 2=6(LC 16)  
Max Grav 3=76(LC 23), 2=239(LC 23), 4=37(LC 7)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 3 and 6 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23,2020

**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	Summit/15 Woodside	143736378
2531735	J12	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:57 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-xY7nb0xfEBfHp?BJnu8cd1O\_eujdQ54Eqr004myGK18



Scale = 1:22.1

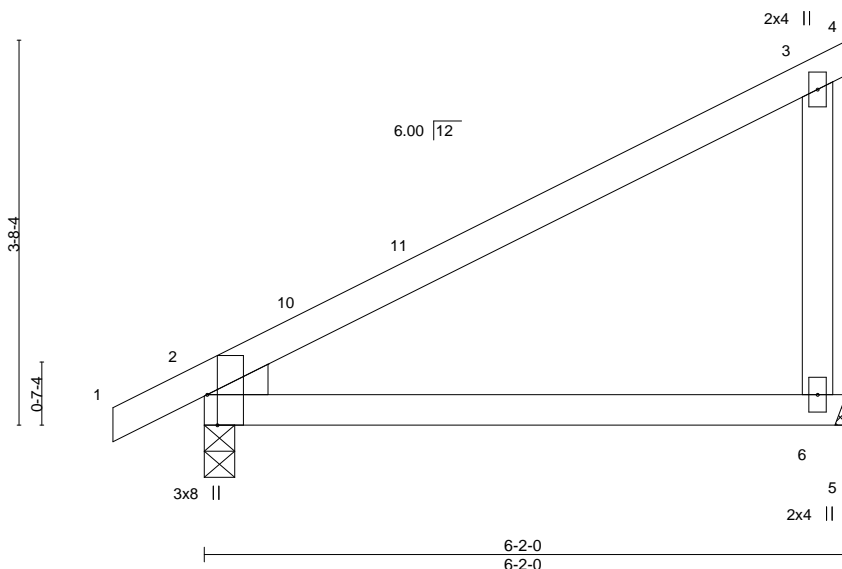


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.70	Vert(LL)	-0.09	6-9	>813	240	MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.52	Vert(CT)	-0.18	6-9	>399	180		
TCDL 20.0	Rep Stress Incr YES	WB 0.07	Horz(CT)	0.03	2	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS						Weight: 20 lb	FT = 20%
BCDL 10.0									

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=0-3-8, 6=Mechanical  
Max Horz 2=92(LC 16)  
Max Uplift 2=-3(LC 16), 6=-45(LC 16)  
Max Grav 2=434(LC 23), 6=423(LC 23)

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

WEBS 3-6=-322/187

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 2 and 45 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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 2531735	Truss J13	Truss Type Jack-Open	Qty 3	Ply 1	Summit/15 Woodside Job Reference (optional)	143736379
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:58 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-QlhAoLyI?Vn8Q9mWLbgrAFxPd8E9ZLN3VmZcCyGKI7

-0-10-8 0-10-8 4-0-15 4-0-15

Scale: 3/4"=1'

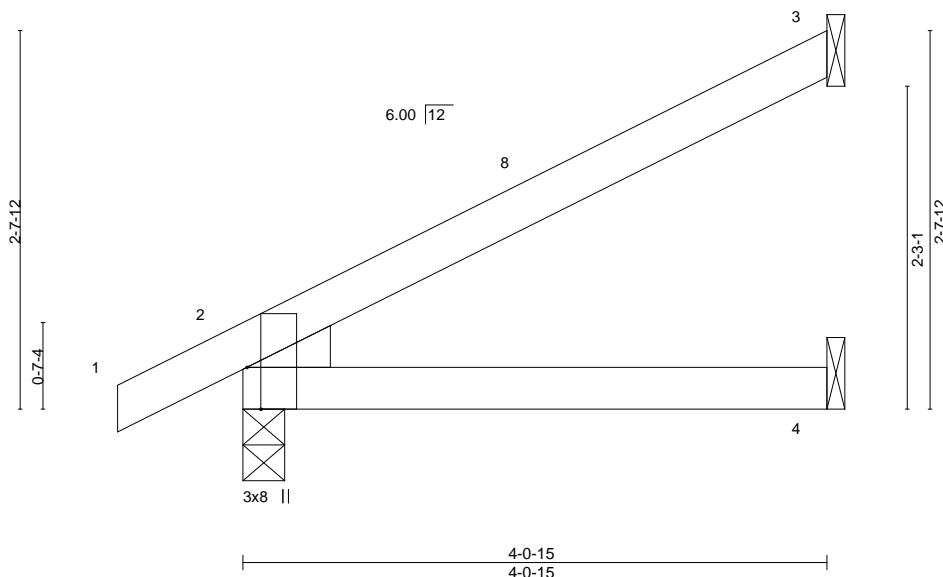


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.30	Vert(LL) -0.02	4-7	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.04	4-7	>999	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01	2	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS							
BCDL 10.0								Weight: 12 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=64(LC 16)  
Max Uplift 3=35(LC 16), 2=5(LC 16)  
Max Grav 3=189(LC 23), 2=377(LC 23), 4=79(LC 7)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-0-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 3 and 5 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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



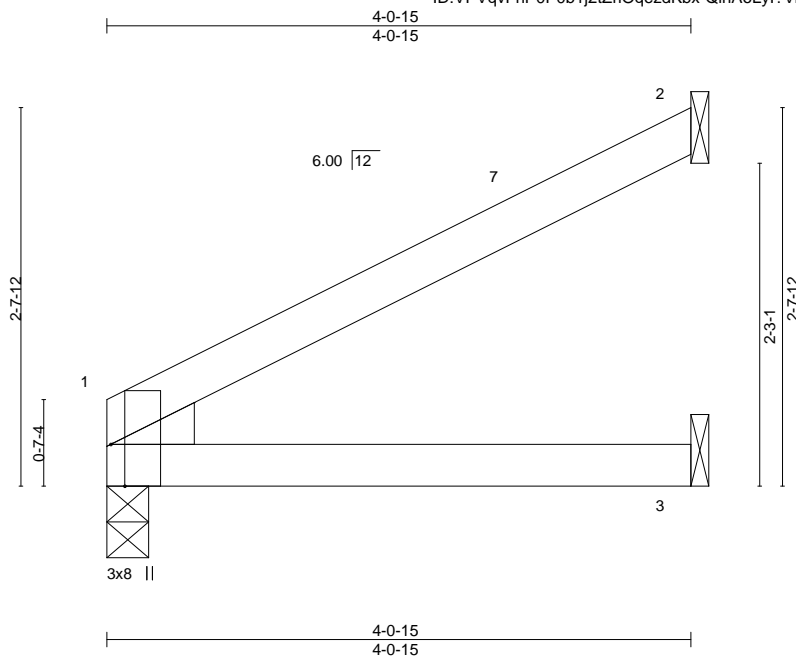
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss J14	Truss Type Jack-Open	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736380
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:58 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-QlhAoLyI?Vn8Q9mWLbgrAFxFU17k9ZLN3VmZcCyGKI7



Scale: 3/4"=1'

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) -0.02	3-6	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.28	Vert(CT) -0.04	3-6	>999	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01	1	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS							
BCDL 10.0								Weight: 11 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=Mechanical, 3=Mechanical, 1=0-3-8  
Max Horz 1=54(LC 16)  
Max Uplift 2=35(LC 16)  
Max Grav 2=189(LC 22), 3=81(LC 7), 1=261(LC 22)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-0-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCDL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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



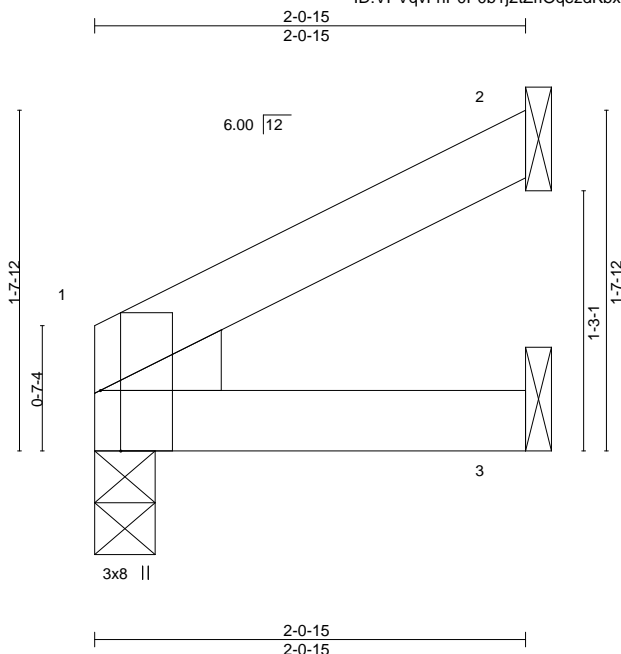
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss J15	Truss Type Jack-Open	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736381
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:33:59 2020 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-uxFY0hzwmvpv?2JLivJB4iSUUBhWEu0bXl9V68eyGKl6



Scale = 1:11.1

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00	6	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.07	Vert(CT) -0.00	6	>999	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	1	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MP							
BCDL 10.0								Weight: 6 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2'-0-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

**REACTIONS.** (size) 2=Mechanical, 3=Mechanical, 1=0-3-8  
Max Horz 1=27(LC 16)  
Max Uplift 2=-17(LC 16), 3=-1(LC 16)  
Max Grav 2=82(LC 22), 3=41(LC 7), 1=122(LC 22)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 2 and 1 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23,2020

**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



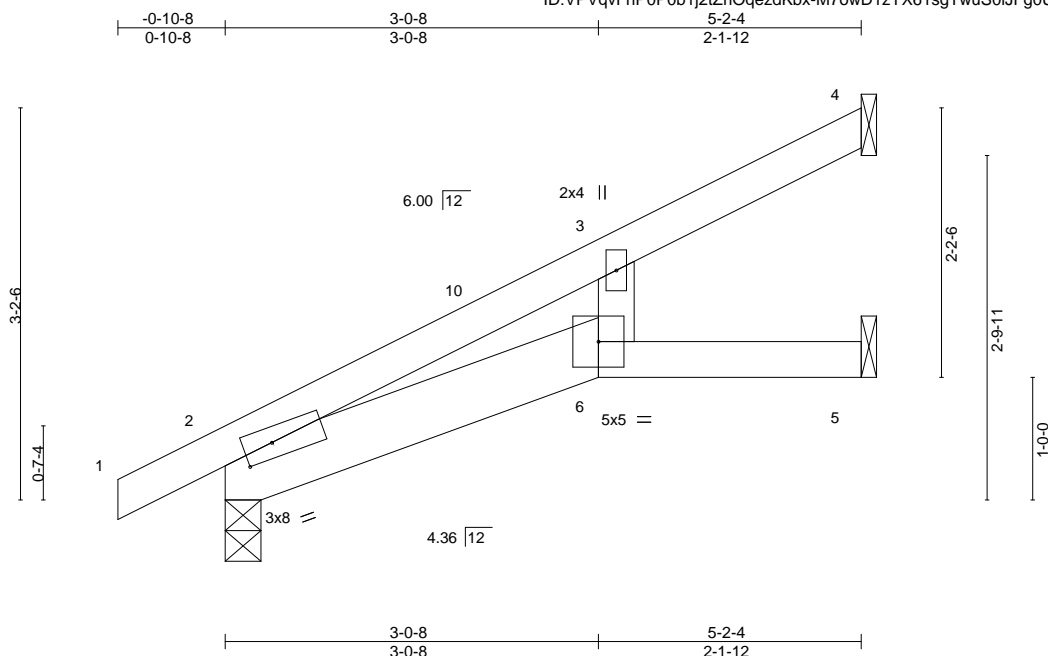
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss J16	Truss Type Jack-Open	Qty 2	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736382
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:00 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-M7owD1zYX61sgTwuS0iJFg0UB5pfdT2gXpFgh5yGKI5



Scale = 1:18.8

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.75	Vert(LL) -0.10	6	>607	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.18	6	>343	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.05	Horz(CT) 0.06	5	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS							
BCDL 10.0								Weight: 17 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-6: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=79(LC 16)  
Max Uplift 4=47(LC 16), 2=5(LC 16)  
Max Grav 4=315(LC 23), 2=418(LC 23), 5=42(LC 7)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-1-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- 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 47 lb uplift at joint 4 and 5 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 23, 2020

**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 2531735	Truss J17	Truss Type Jack-Open	Qty 3	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736383
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:01 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-qJMIQN\_AIQ9jHcV40jDYntZp1VCHMwppIT\_DDXYgKl4

-0-10-8 3-0-8 3-1-3  
0-10-8 3-0-8 0-0-11

Scale = 1:13.7

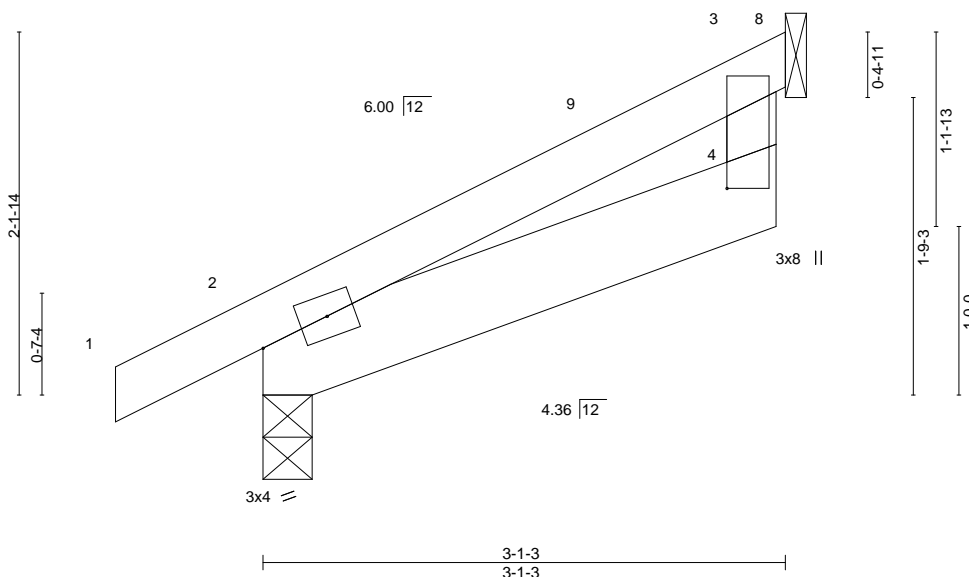


Plate Offsets (X,Y)-- [3:0-0-14,0-1-12], [4:0-11-6,2-9-0], [4:0-0-10,0-1-12]

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00 7 >999 240	MT20		197/144	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.00 4-7 >999 180				
TCDL	20.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00 2 n/a n/a				
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							
BCDL	10.0										

Weight: 12 lb FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 3=Mechanical  
Max Horz 2=51(LC 16)  
Max Uplift 2=-4(LC 16), 3=-27(LC 16)  
Max Grav 2=304(LC 23), 3=178(LC 23)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-1-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 2 and 27 lb uplift at joint 3.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



November 23, 2020

**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



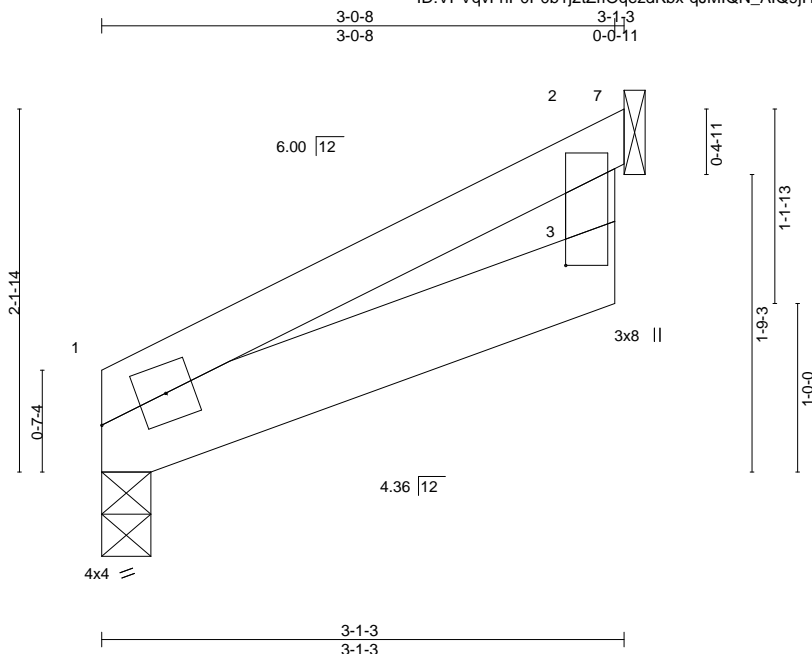
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2531735	Truss J18	Truss Type Jack-Open	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736384
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:01 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-qJMIQN\_AIQ9jHcV40jDYntZp\_VC?MwnpIT\_DDXYGKl4



Scale = 1:13.7

Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [3:0-11-6,2-9-0], [3:0-0-10,0-1-12]									
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	in (loc)	l/defl	MT20	GRIP
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	-0.00	6	>999	197/144
TCDL	20.0	Rep Stress Incr	YES	WB	0.02	-0.01	3-6	>999	
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		0.00	1	n/a	
BCDL	10.0								
								Weight: 11 lb FT = 20%	

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x6 SPF No.2  
WEBS 2x4 SPF No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=0-3-8, 2=Mechanical  
Max Horz 1=42(LC 16)  
Max Uplift 2=28(LC 16)  
Max Grav 1=188(LC 23), 2=187(LC 23)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



November 23, 2020

**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 2531735	Truss J19	Truss Type Jack-Open	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736385
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:02 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-IWwgej?o3kHavm4HaRknK56w2vVS5MLz\_7knlyzGKI3

-0-10-8 0-10-8 3-10-4 3-10-4

Scale = 1:15.5

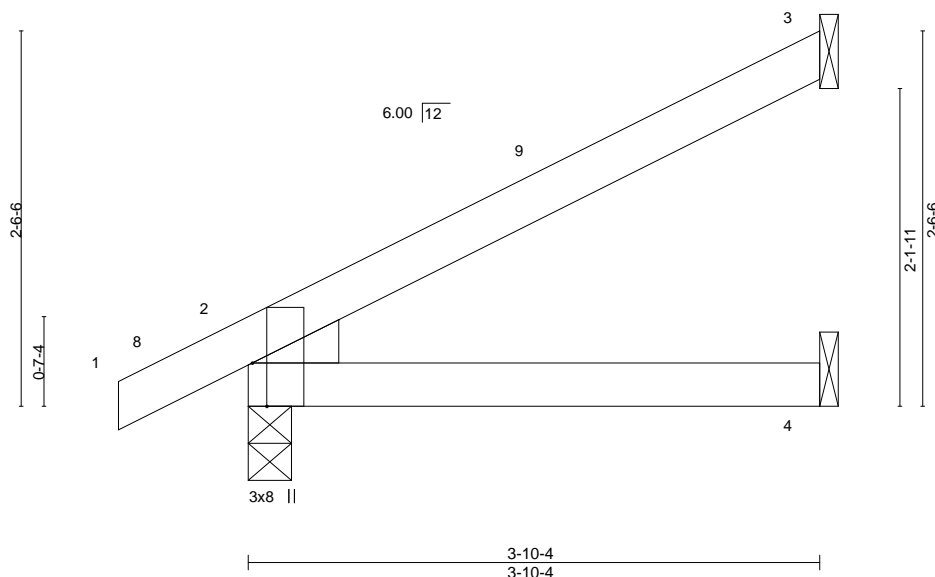


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.02	4-7	>999	240		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.23	Vert(CT) -0.03	4-7	>999	180			
TCDL 20.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01	2	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MP							
BCDL 10.0								Weight: 11 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-4 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=61(LC 16)  
Max Uplift 3=33(LC 16), 2=5(LC 16)  
Max Grav 3=174(LC 23), 2=361(LC 23), 4=75(LC 7)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-9-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 3 and 5 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23, 2020

**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 2531735	Truss J20	Truss Type Jack-Open	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736386
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:04 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-Eu2R3P02bLXH94EfhsfFPWBJeiEzZGrGRRDtqsyGK11

-0-10-8  
0-10-8

1-9-3  
1-9-3

Scale = 1:9.9

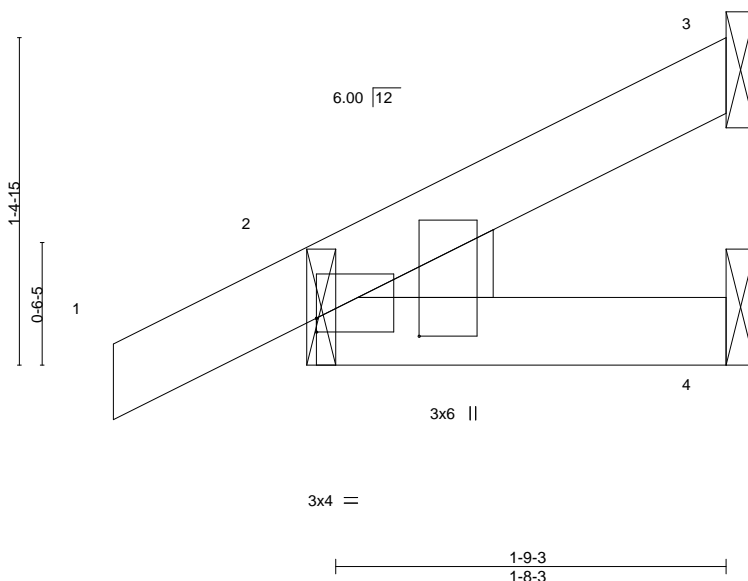


Plate Offsets (X,Y)-- [2:0-0-0,0-0-11], [2:0-0-15,0-5-5]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	-0.00	7	>999	180		
TCDL 20.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-MP							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 6 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-9-3 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 2=Mechanical  
Max Horz 2=33(LC 16)  
Max Uplift 3=-12(LC 16), 4=-1(LC 16), 2=-7(LC 16)  
Max Grav 3=59(LC 23), 4=31(LC 7), 2=223(LC 23)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 3, 1 lb uplift at joint 4 and 7 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23,2020

**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	Summit/15 Woodside	143736387
2531735	J21	Jack-Open	2	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:04 2020 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-Eu2R3P02bLXH94EfhsmFPWBjE1ZGrGRRDtqsyGK11

-0-10-8 1-9-3  
0-10-8 1-9-3

Scale = 1:10.3

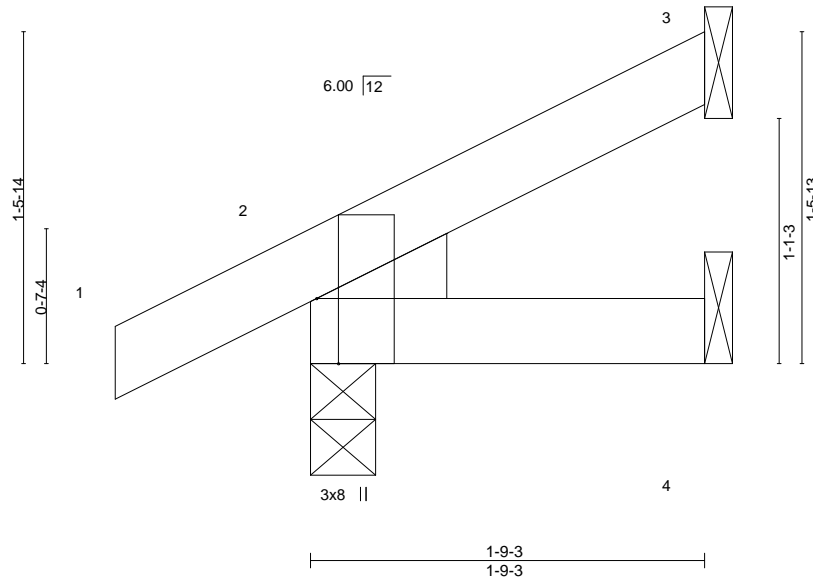


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	-0.00	7	>999	180		
TCDL 20.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-MP							
BCDL 10.0	Code IRC2018/TPI2014								

Weight: 6 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-9-3 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=33(LC 16)  
Max Uplift 3=14(LC 16), 2=6(LC 16)  
Max Grav 3=62(LC 23), 2=223(LC 23), 4=31(LC 7)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCDL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 3 and 6 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23,2020

**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 2531735	Truss J22	Truss Type Jack-Open	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736388
----------------	--------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:05 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-j5cpG1hLff8mEosFZIUyjjUO6aG1j4Pg5yRMlyGK10

-0-10-8  
0-10-8  
1-9-3  
1-9-3

Scale = 1:10.3

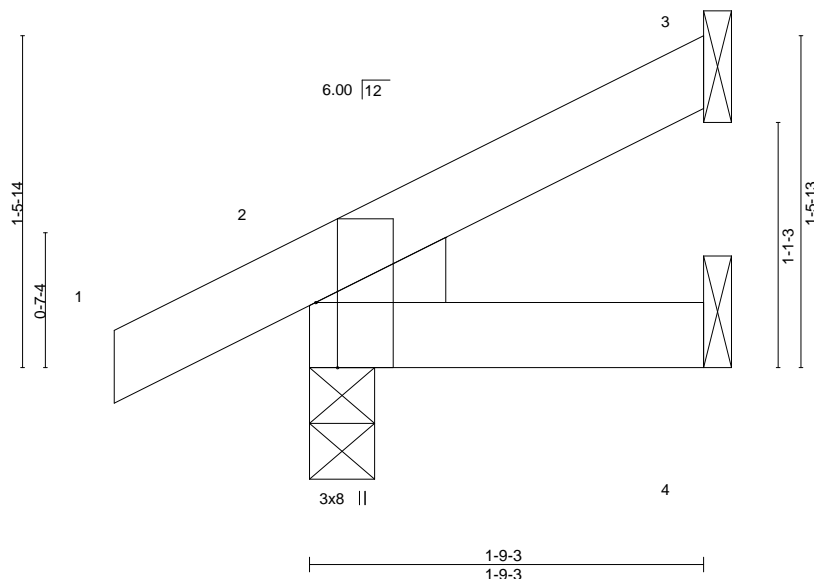


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08				MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03					
TCDL	20.0	Rep Stress Incr	YES	WB	0.00					
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP						
BCDL	10.0								Weight: 6 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-9-3 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 3=33(LC 16)  
Max Uplift 2=28(LC 16)  
Max Grav 3=62(LC 23), 2=223(LC 23), 4=31(LC 7)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23, 2020

**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



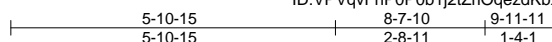
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736389
2531735	LG1	GABLE	1	1		
Job Reference (optional)						

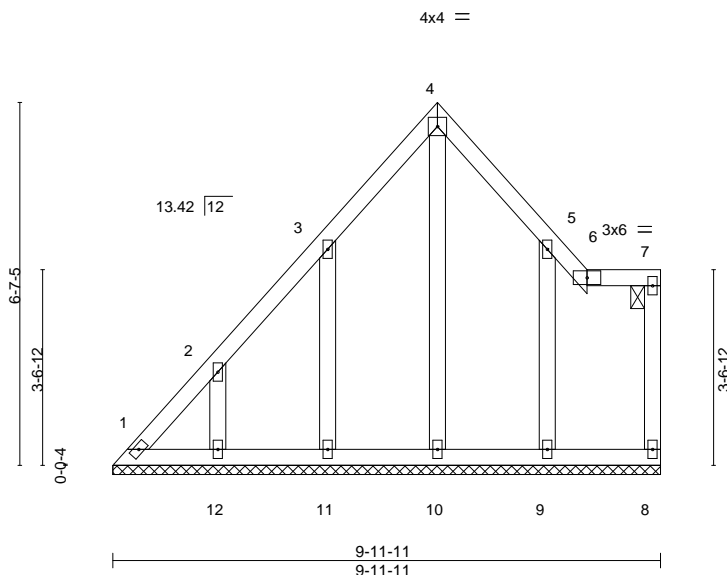
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:12 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-?RXSk874ioY96JrC9Xw7kCWWhZxzkRsKRHh9l5OyGKHv



Scale = 1:42.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	MT20		197/144	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a				
TCDL	20.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00				
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
								Weight: 48 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 9-11-11.  
(lb) - Max Horz 1=162(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 10, 11, 12, 9  
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 12 except 11=255(LC 25), 9=280(LC 26)

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

WEBS 5-9=274/172

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 5-10-15, Exterior(2E) 5-10-15 to 8-7-10, Interior(1) 8-7-10 to 9-9-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 10, 11, 12, 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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

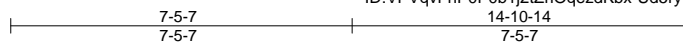


Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736390
2531735	LG2	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

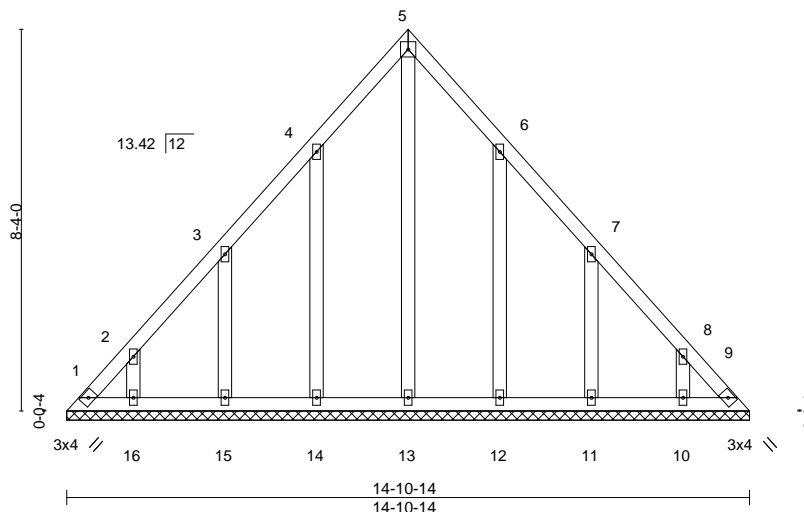
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:13 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-Ud5ryU7iT6g0kSQJFRMHP3sZKJ7AJRaWLVsdqyGKHu



4x4 =

Scale = 1:50.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	in (loc)	l/defl	L/d	MT20	197/144	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	n/a	n/a	999			
TCDL	20.0	Rep Stress Incr	YES	WB	0.17	n/a	n/a	999			
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S		0.00	9	n/a			
BCDL	10.0								Weight: 73 lb	FT = 20%	

#### 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 14-10-14.  
(lb) - Max Horz 1=-164(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 14, 15, 16, 12, 11, 10  
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-15 to 3-5-7, Interior(1) 3-5-7 to 7-5-7, Exterior(2R) 7-5-7 to 10-5-7, Interior(1) 10-5-7 to 14-6-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- All plates are 2x4 MT20 unless otherwise indicated.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 14, 15, 16, 12, 11, 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.



November 23, 2020

**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

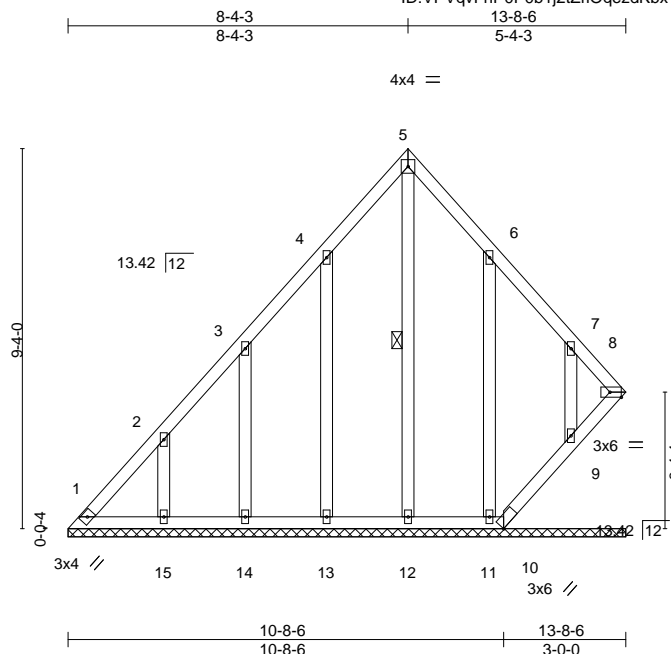


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736391
2531735	LG3	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:14 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-yqfD9q8KEQotLc\_aHyypdb1ukflvmVkl?eP9HyGKHt



Scale = 1:56.6

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

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 25.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) n/a - n/a 999		
TCDL 20.0	Lumber DOL 1.15	WB 0.18	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 75 lb	FT = 20%

**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.  
WEBS 1 Row at midpt 5-12

**REACTIONS.** All bearings 13-8-6.  
(lb) - Max Horz 1=179(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 10, 13, 14, 15, 11, 9  
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 12, 14, 11, 9 except 13=251(LC 25), 15=272(LC 25)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-255/234

- 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 8-4-3, Exterior(2R) 8-4-3 to 11-4-3, Interior(1) 11-4-3 to 13-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - All plates are 2x4 MT20 unless otherwise indicated.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 10, 13, 14, 15, 11, 9.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.



November 23, 2020

**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

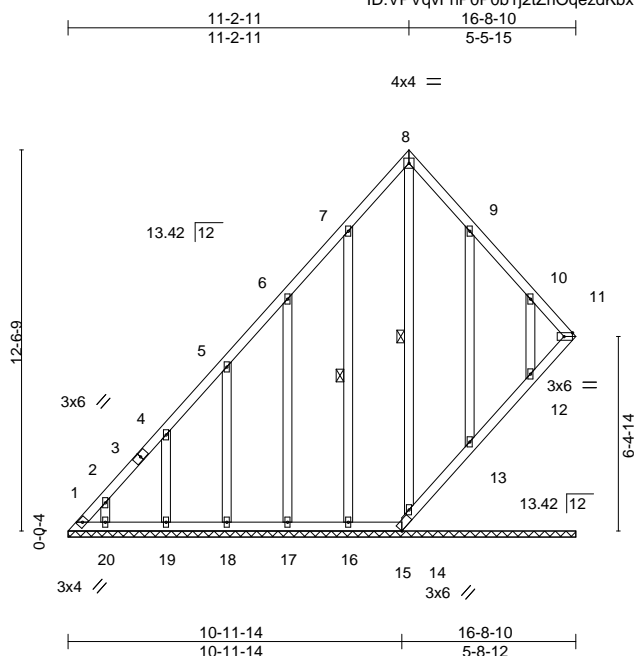


Plate Offsets (X,Y)-- [11:Edge,0-1-8]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	20.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.00	11	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S							Weight: 105 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SPF No.2	WEBS	1 Row at midpt                      8-14, 7-16

**REACTIONS.** All bearings 16-8-10.  
(lb) - Max Horz 1=240(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 11, 16, 17, 18, 19, 20, 13, 12 except 1=-134(LC 12),  
15=-107(LC 10)  
Max Grav All reactions 250 lb or less at joint(s) 11, 15, 14, 16, 17, 18, 19, 20, 12 except 1=268(LC 14),  
13=253(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 1-2=-418/375. 2-4=-331/298

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16;  $V_{ult}=115$  mph (3-second gust)  $V_{asd}=91$  mph;  $TCDL=6.0$  psf;  $BCDL=4.2$  psf;  $h=20$  ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-15 to 3-2-11, Interior(1) 3-2-11 to 11-2-11, Exterior(2R) 11-2-11 to 14-2-11, Interior(1) 14-2-11 to 16-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16;  $P_r=25.0$  psf (roof LL: Lum DOL=1.15 Plate DOL=1.15);  $P_f=20.0$  psf (Lum DOL=1.15 Plate DOL=1.15);  $I_s=1.0$ ; Rough Cat C; Partially Exp.;  $C_e=1.0$ ;  $C_s=1.00$ ;  $C_t=1.10$
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 16, 17, 18, 19, 20, 13, 12 except (jt=lb) 1=134, 15=107.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 11, 14, 13, 12.
- 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.



November 23, 2020



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 BCS1 Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



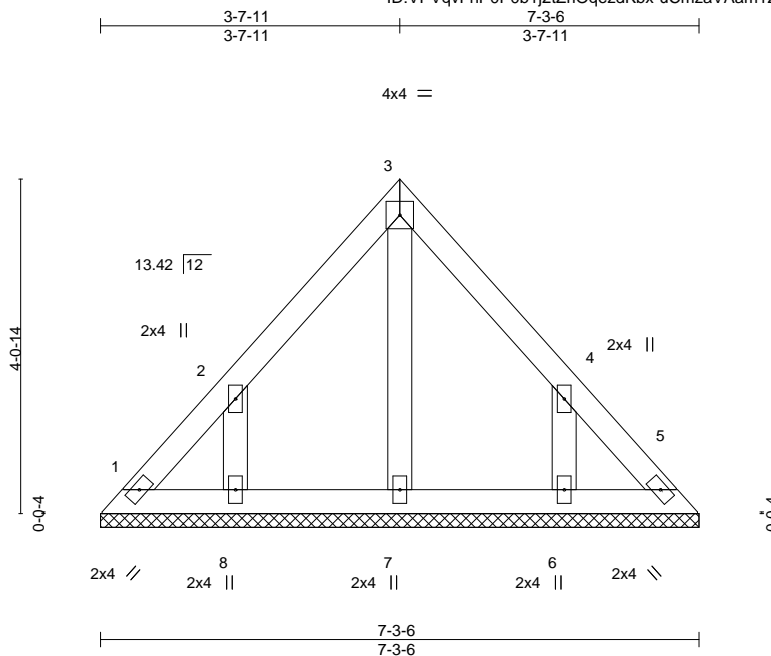
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736393
2531735	LG5	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:16 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-uCmzaVAam12abw8zON\_3u2hNnYKsNiO1CJ7WE9yGKHr



Scale = 1:28.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
TCDL 20.0	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 26 lb	FT = 20%
BCDL 10.0	Code IRC2018/TPI2014								

#### 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 7-3-6.  
(lb) - Max Horz 1=-76(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6  
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.  
WEBS 2-8=-254/157, 4-6=-254/157

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-7-11, Exterior(2R) 3-7-11 to 6-7-11, Interior(1) 6-7-11 to 6-11-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 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.



November 23, 2020

**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



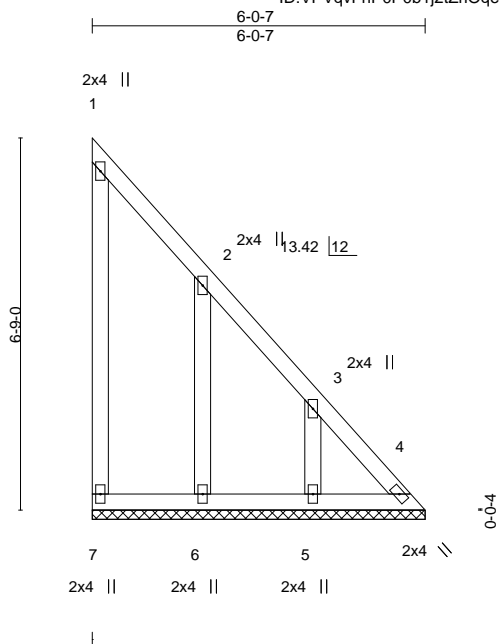
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside
2531735	LG6	GABLE	1	1	I43736394
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:17 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-MOKLnRACXLARC4j9y5VIRFDUiye68tARzt3mcyGKHq



Scale = 1:41.8

LOADING (psf)		SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0									
Snow (Pf)	20.0	Plate Grip DOL	1.15	TC	0.38	n/a	-	n/a	999	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.06	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	0.00	4	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 30 lb	FT = 20%

#### 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.

All bearings 6-0-7.  
(lb) - Max Horz 7=-191(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 7, 4, 6, 5  
Max Grav All reactions 250 lb or less at joint(s) 7, 4, 5 except 6=255(LC 26)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-316/337, 3-4=-446/462  
BOT CHORD 6-7=-314/323, 5-6=-314/323, 4-5=-314/323  
WEBS 2-6=-260/164

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 4-4-11, Interior(1) 4-4-11 to 5-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 6, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23, 2020

**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

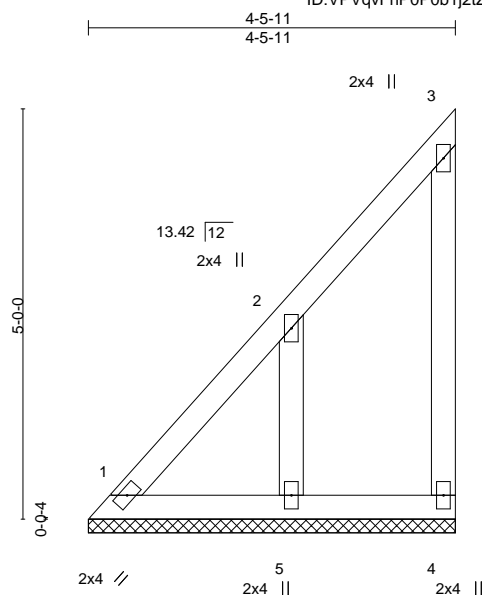
Job 2531735	Truss LG7	Truss Type GABLE	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)
----------------	--------------	---------------------	----------	----------	--

I43736395

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:18 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-qbuuj?BBqlellqEIMWo0X\_TmhXL0DrcdKfdcd12yGKHp



Scale = 1:28.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.18	Vert(LL)	n/a	-	n/a	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
TCDL 20.0	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	4	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 20 lb	FT = 20%

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

**REACTIONS.** (size) 1=4-5-11, 4=4-5-11, 5=4-5-11

Max Horz 1=137(LC 11)  
 Max Uplift 1=-31(LC 10), 4=-44(LC 11), 5=-100(LC 14)  
 Max Grav 1=143(LC 26), 4=90(LC 25), 5=298(LC 25)

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

TOP CHORD 1-2=-302/330  
 WEBS 2-5=-306/245

**NOTES-**

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=100.
- 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.



November 23, 2020

**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



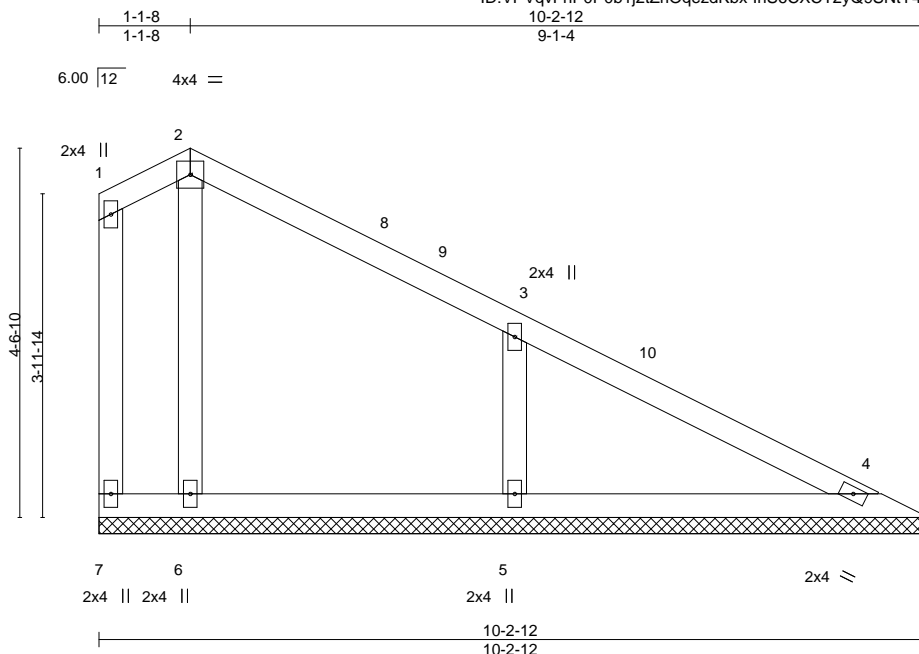
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job 2531735	Truss V1	Truss Type Valley	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736396
----------------	-------------	----------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:19 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-InS6CXCT2yQ9SNtY4VYmWgJpglKoa2QTuGMARUyGKH0



Scale = 1:28.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.35	Vert(LL)	n/a	-	n/a	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.14	Vert(CT)	n/a	-	n/a		
TCDL 20.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	0.00	4	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S					Weight: 35 lb	FT = 20%
BCDL 10.0	Code IRC2018/TPI2014							

#### 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 10-2-4.  
(lb) - Max Horz 7=123(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 7, 6, 5  
Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=276(LC 2), 5=566(LC 36)

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

WEBS 3-5=-452/265

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 1-1-8, Exterior(2R) 1-1-8 to 4-1-8, Interior(1) 4-1-8 to 9-7-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23, 2020

**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

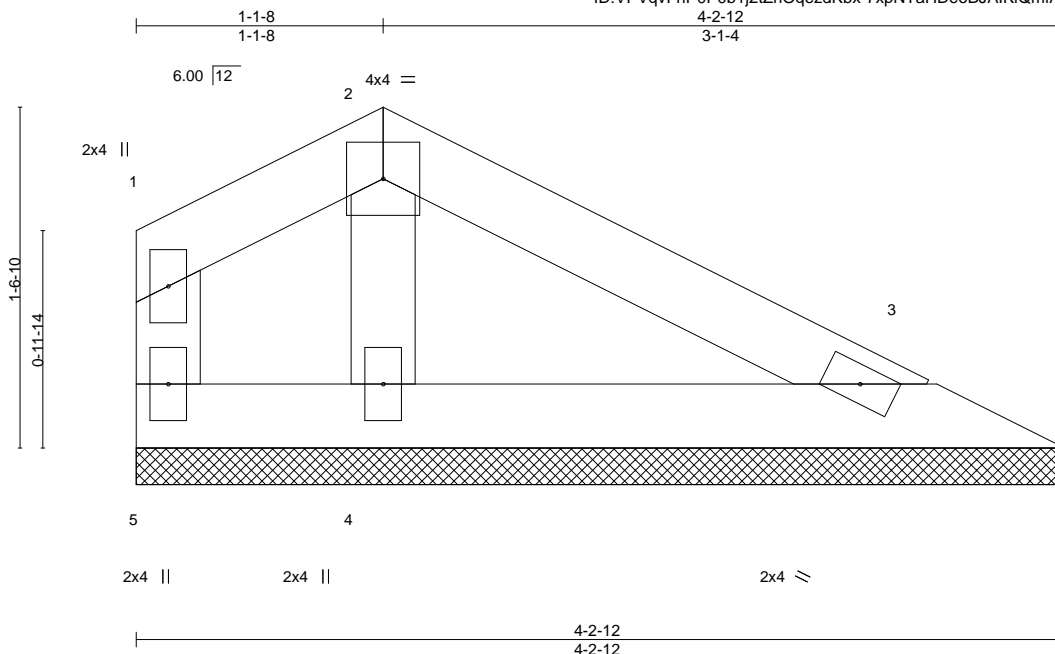




Job 2531735	Truss V4	Truss Type Valley	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736399
----------------	-------------	----------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:25 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-7xpNTaHDeoBJAikQmfAmxZuKAPm\_mjLGCpU28yGKHi



Scale = 1:10.5

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	MT20		197/144	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a				
TCDL	20.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00				
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0										

**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 4-2-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=4-2-4, 3=4-2-4, 4=4-2-4  
Max Horz 5=29(LC 12)  
Max Uplift 5=10(LC 16), 3=9(LC 17)  
Max Grav 5=49(LC 22), 3=137(LC 23), 4=207(LC 2)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23,2020

**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

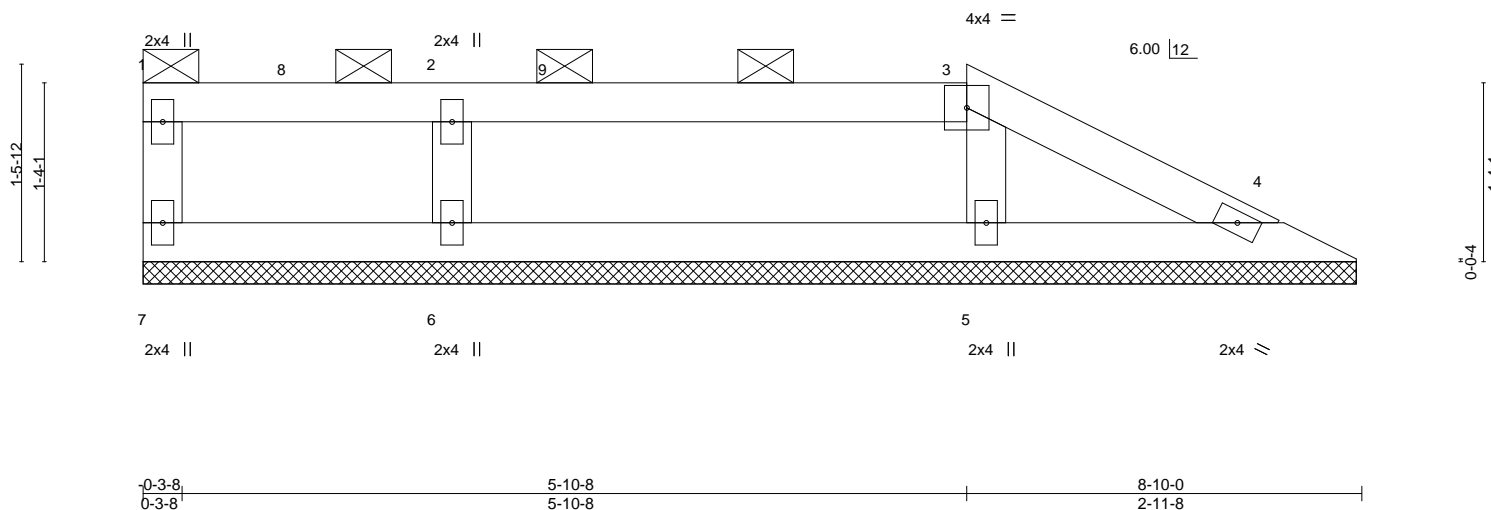
Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736400
2531735	V5	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:26 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-b7NlgwHsP5JAnSvu\_UAPI950BakQjDJVVVsY2bayGKHh

5-10-8	8-10-0
5-10-8	2-11-8

Scale = 1:17.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	MT20	197/144		
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a				
TCDL	20.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

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

#### REACTIONS.

All bearings 9-1-0.  
(lb) - Max Horz 7=32(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 4, 7, 5, 6  
Max Grav All reactions 250 lb or less at joint(s) 4, 7 except 5=340(LC 36), 6=559(LC 36)

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

WEBS 3-5=-270/158, 2-6=-487/190

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-1-12 to 2-10-4, Interior(1) 2-10-4 to 5-10-8, Exterior(2E) 5-10-8 to 8-2-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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



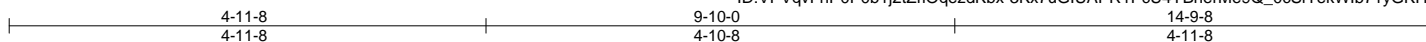
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	143736401
2531735	V6	Valley	1	1	Job Reference (optional)	

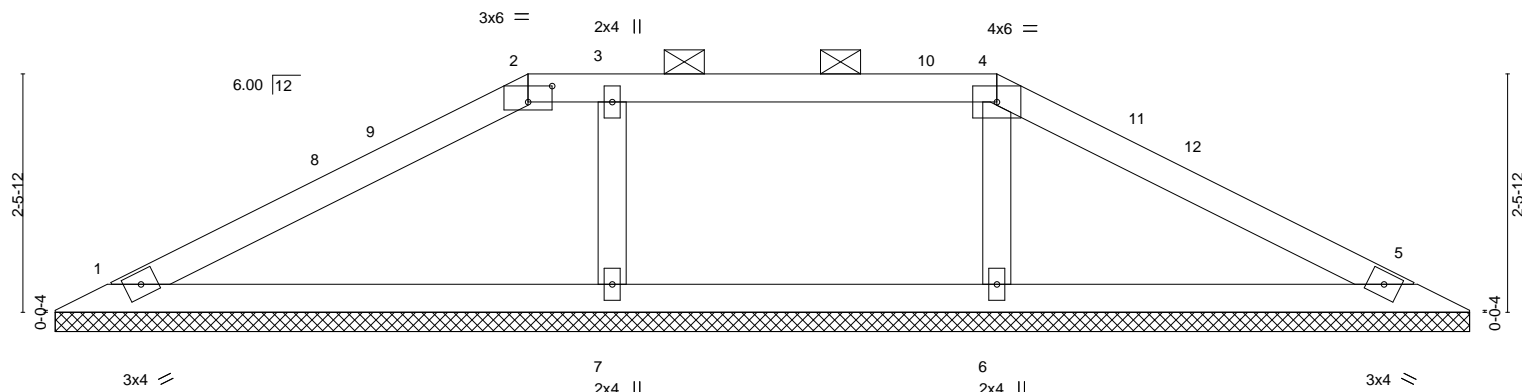
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:27 2020 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-3Kx7uGIUAPR1PcU4YBherMe9Q\_0cSfTekWlb71yGKHg



Scale: 1/2"=1'



0-0-8  
0-0-8

14-9-8  
14-9-0

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	TC 0.49	Vert(LL) n/a	-	n/a	999		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.27	Vert(CT) n/a	-	n/a	999			
TCDL 20.0	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.01	5	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014	Matrix-S							
BCDL 10.0								Weight: 38 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 14-8-8.  
(lb) - Max Horz 1=24(LC 14)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6, 7  
Max Grav All reactions 250 lb or less at joint(s) except 1=471(LC 40), 5=454(LC 40), 6=468(LC 23), 7=575(LC 39)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-516/115, 2-3=-354/143, 3-4=-354/143, 4-5=-512/122  
BOT CHORD 1-7=-49/354, 6-7=-49/354, 5-6=-49/354  
WEBS 4-6=-368/98, 3-7=-466/125

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-11-8, Exterior(2R) 4-11-8 to 9-2-7, Interior(1) 9-2-7 to 9-10-0, Exterior(2E) 9-10-0 to 14-1-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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

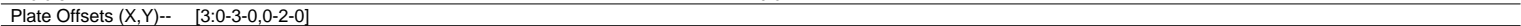


16023 Swingley Ridge Rd  
Chesterfield, MO 63017



8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:29 2020 Page 1

ID:VPVayFnP0P0b1j2tZrIOgezdkbx-0j3uJyKki0hkeweTfci6wniYLnlgwa3xBgniBvvGKHe



**LUMBER-** \_\_\_\_\_ **BRACING-** \_\_\_\_\_

TOP CHORD      2-3=-269/104, 4-5=-253/106

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

3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

5) Provide adequate drainage to prevent water ponding.

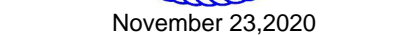
6) Gable requires continuous bottom chord bearing.

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.

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

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



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 BCS! Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

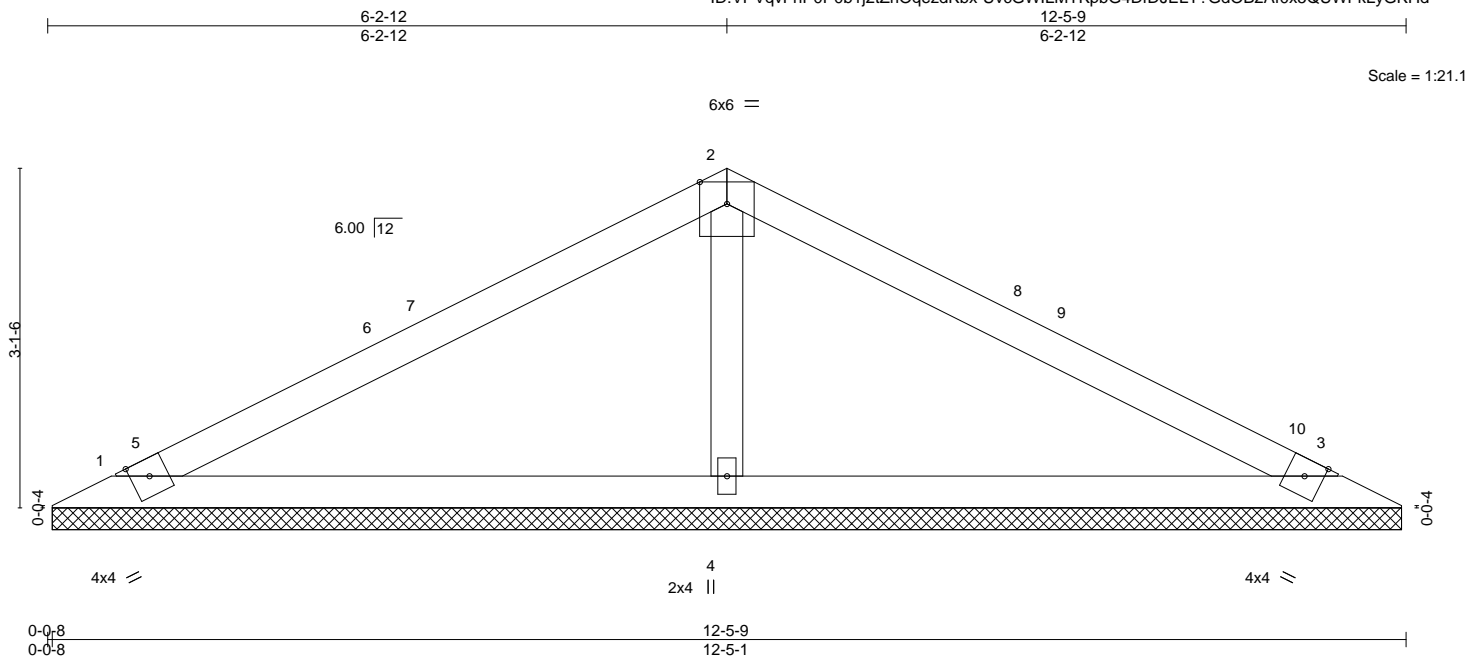


Job	Truss	Truss Type	Qty	Ply	Summit/15 Woodside	I43736403
2531735	V8	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:30 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-UvcGWILMTKpbG4DfDJELT?GdOB2Af0x5QUWFkLyGKHd



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.70	Vert(LL)	n/a	-	n/a	MT20	197/144
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.28	Vert(CT)	n/a	-	n/a		
TCDL 20.0	Lumber DOL 1.15	WB 0.09	Horz(CT)	0.00	3	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S					Weight: 31 lb	FT = 20%
BCDL 10.0	Code IRC2018/TPI2014							

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

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

**REACTIONS.** (size) 1=12-4-9, 3=12-4-9, 4=12-4-9  
Max Horz 1=-30(LC 14)  
Max Uplift 1=-20(LC 16), 3=-26(LC 17)  
Max Grav 1=334(LC 22), 3=334(LC 23), 4=666(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-487/189

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-2-12, Exterior(2R) 6-2-12 to 9-2-12, Interior(1) 9-2-12 to 11-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23, 2020

**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

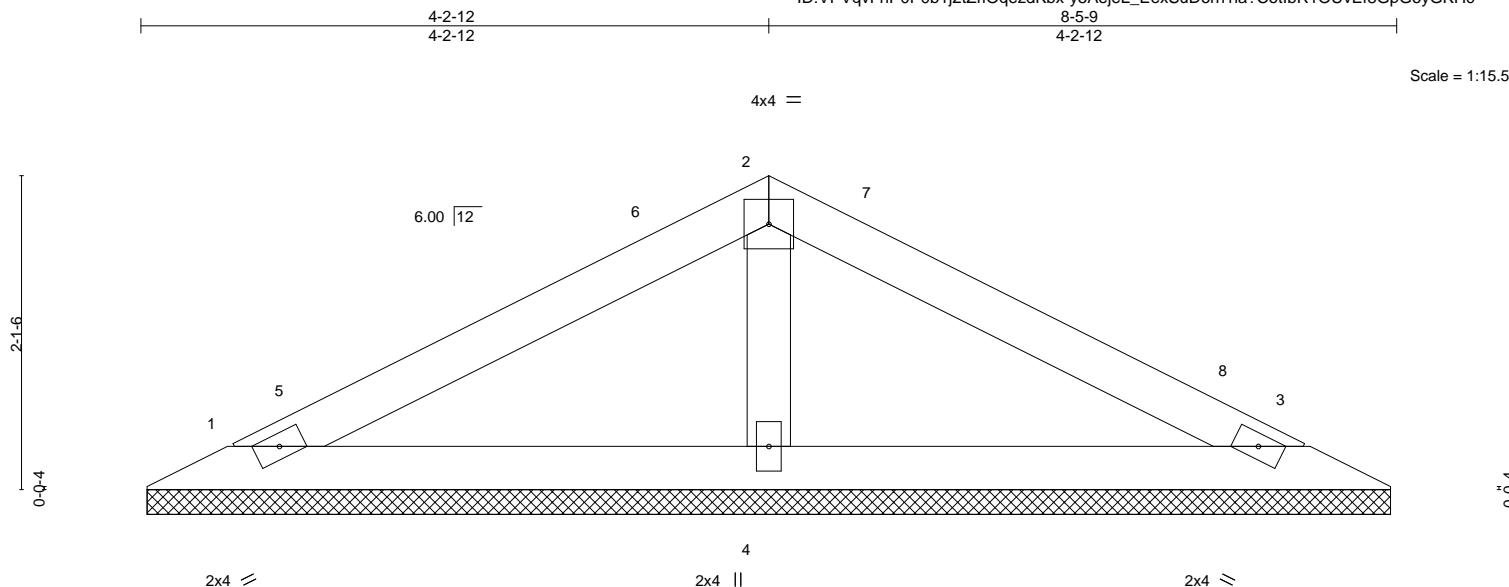


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss V9	Truss Type Valley	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736404
----------------	-------------	----------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:31 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-y5AejeL\_EexSuDorn1la?CotlBR1OUvEf8GpGoyGKHc



0-0-8				8-5-9															
0-0-8				8-5-1															
<b>LOADING</b> (psf)		<b>SPACING-</b>		2-0-0		<b>CSI.</b>		<b>DEFL.</b>		in (loc)		l/defl		L/d		<b>PLATES</b>		<b>GRIP</b>	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999							MT20	197/144	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999									
TCDL	20.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a									
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P													Weight: 20 lb	FT = 20%	
BCDL	10.0																		

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

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

**REACTIONS.** (size) 1=8-4-9, 3=8-4-9, 4=8-4-9  
Max Horz 1=-20(LC 14)  
Max Uplift 1=-17(LC 16), 3=-21(LC 17)  
Max Grav 1=236(LC 22), 3=236(LC 23), 4=383(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-293/150

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-2-12, Exterior(2R) 4-2-12 to 7-2-12, Interior(1) 7-2-12 to 7-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23, 2020

**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



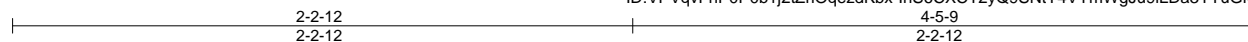
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2531735	Truss V10	Truss Type Valley	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736405
----------------	--------------	----------------------	----------	----------	--	-----------

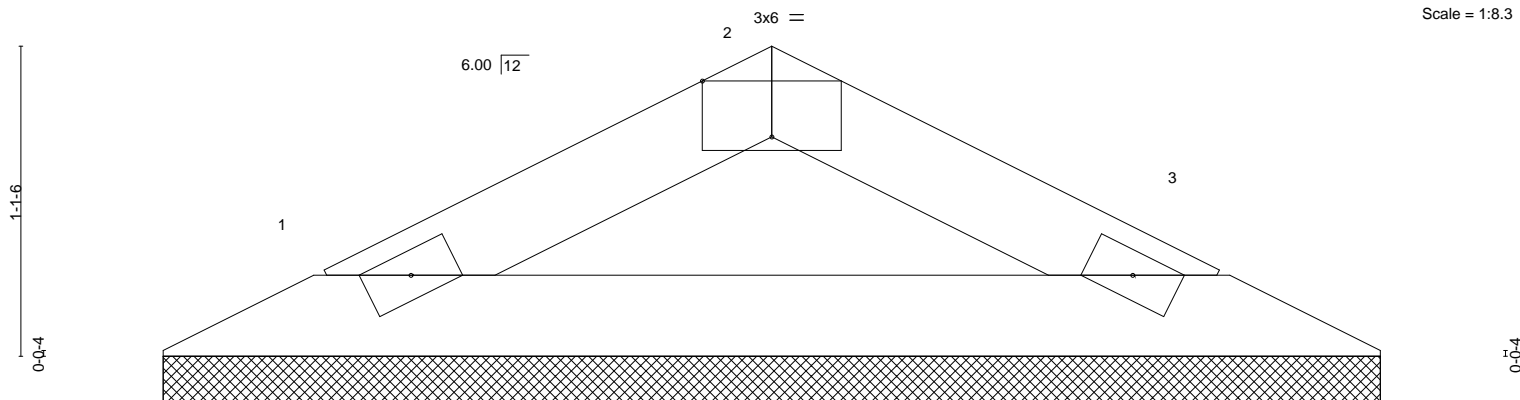
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:19 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-InS6CXCT2yQ9SNtY4VYmWgJu9ILDa3YTUGMarUyGKHo



Scale = 1:8.3



0-0-8 0-0-8	4-5-9 4-5-1
----------------	----------------

Plate Offsets (X,Y)-- [2:0-3-0,Edge]		LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999			
TCDL	20.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a			
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P									
BCDL	10.0										Weight: 9 lb	FT = 20%	

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=4-4-9, 3=4-4-9  
Max Horz 1=9(LC 15)  
Max Uplift 1=-6(LC 16), 3=-6(LC 17)  
Max Grav 1=176(LC 2), 3=176(LC 2)

**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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 23,2020

**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 2531735	Truss V11	Truss Type Valley	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736406
----------------	--------------	----------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:20 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-mz0UQtD5pGY03XSkdD3?3ur\_V9hPJVic7w5kNwyGKHn

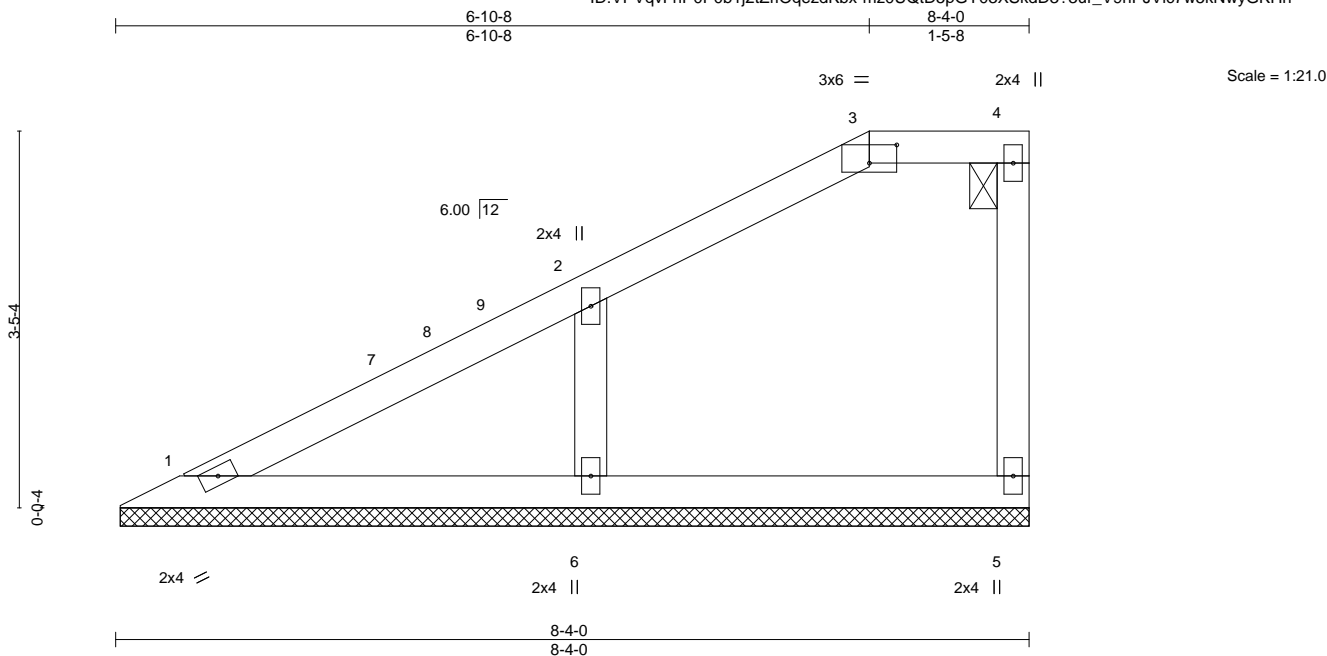


Plate Offsets (X,Y)-- [3:0-3-0,0-2-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 25.0	Plate Grip DOL 1.15	2-0-0	TC 0.34	Vert(LL) n/a	-	n/a	999		MT20	197/144
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.12	Vert(CT) n/a	-	n/a	999			
TCDL 20.0	Rep Stress Incr YES		WB 0.07	Horz(CT) 0.00	5	n/a	n/a			
BCLL 0.0	Code IRC2018/TPI2014		Matrix-S						Weight: 24 lb	FT = 20%
BCDL 10.0										

#### 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.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=8-3-8, 5=8-3-8, 6=8-3-8  
Max Horz 1=99(LC 13)  
Max Uplift 5=16(LC 13), 6=52(LC 16)  
Max Grav 1=213(LC 37), 5=191(LC 36), 6=615(LC 37)

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

WEBS 2-6=515/262

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-10-8, Exterior(2E) 6-10-8 to 8-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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 2531735	Truss V12	Truss Type Valley	Qty 1	Ply 1	Summit/15 Woodside Job Reference (optional)	I43736407
----------------	--------------	----------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Nov 23 10:34:21 2020 Page 1  
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-FAasdDEjaZgthh1wBwaEb5O9nZ\_a2y2mMarHvNyGKHm

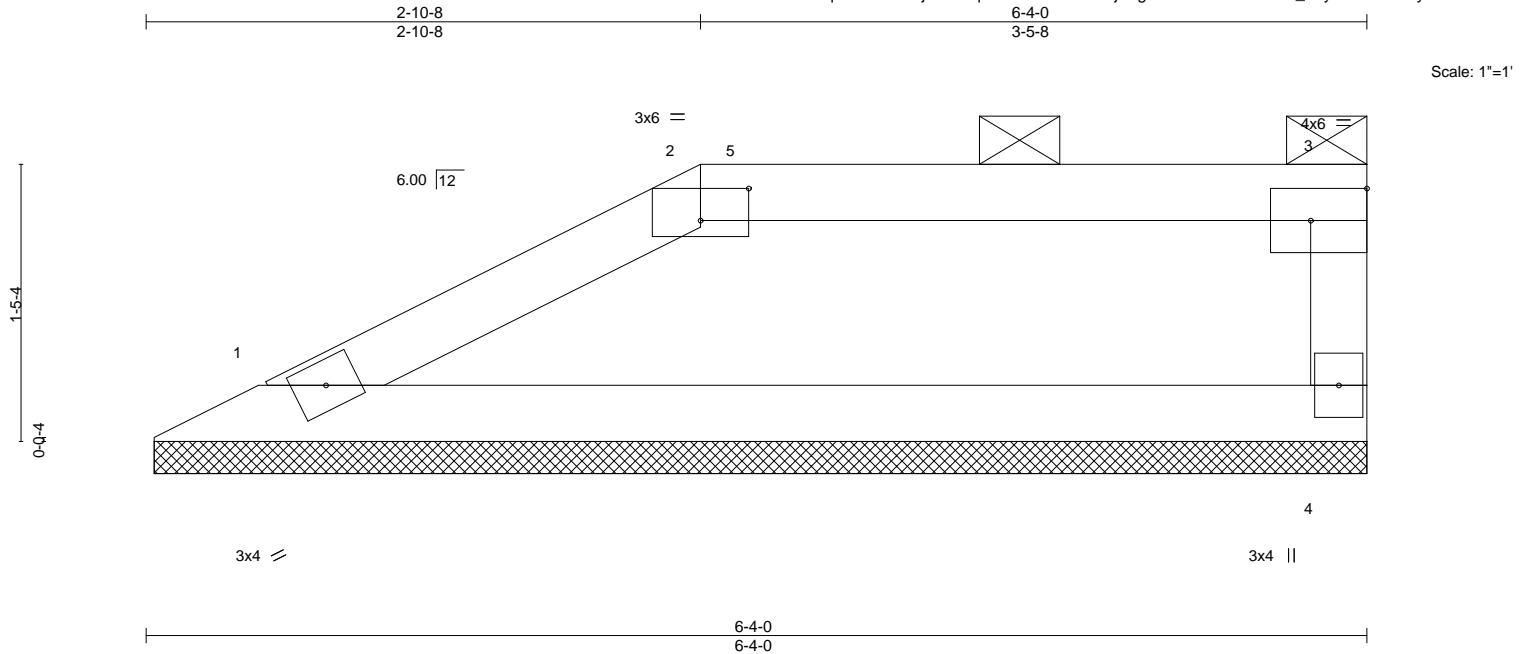


Plate Offsets (X,Y)-- [2:0-3-0,0-2-0], [3:Edge,0-2-0]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a
TCDL	20.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R					
BCDL	10.0								
						<b>PLATES</b>	<b>GRIP</b>		
						MT20	197/144		
						Weight: 15 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=6-3-8, 4=6-3-8  
Max Horz 1=36(LC 13)  
Max Uplift 1=-7(LC 16), 4=-19(LC 13)  
Max Grav 1=324(LC 37), 4=361(LC 36)

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

TOP CHORD 1-2=-342/147, 2-3=-260/146, 3-4=-281/139  
BOT CHORD 1-4=-147/260

#### 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=4.2psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 23, 2020

**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

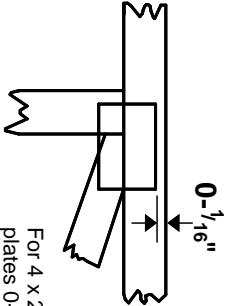
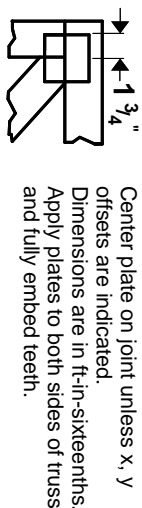


16023 Swingley Ridge Rd  
Chesterfield, MO 63017



# Symbols

## PLATE LOCATION AND ORIENTATION



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

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

\* Plate location details available in **MiTek 20/20** software or upon request.

## PLATE SIZE

4 X 4

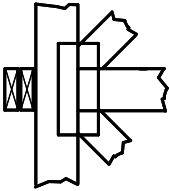
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

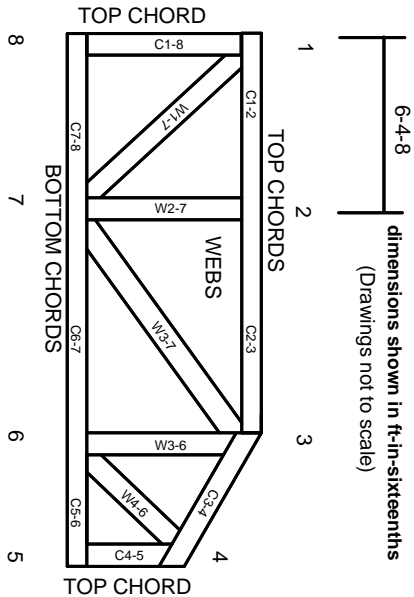
## BEARING



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

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

© 2012 MITek® All Rights Reserved



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.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
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 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.