



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

Re: 2629082
Summit/woodside ridge #21/mo

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/25/2021

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: I44616226 thru I44616302

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

Missouri COA: Engineering 001193



February 2, 2021

Sevier, Scott ,Engineer

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

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616226
2629082	A1	Half Hip Girder	1	2		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:45 2021 Page 1

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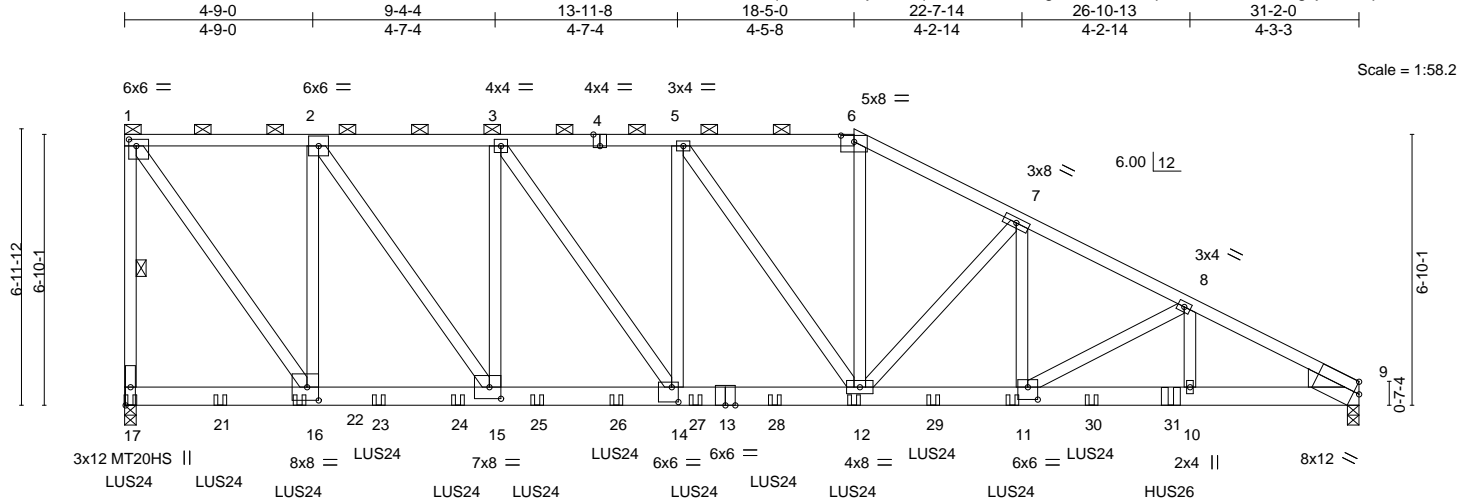


Plate Offsets (X,Y)--		[1:0-2-4,0-2-0], [4:0-2-0,Edge], [6:0-4-0,0-1-15], [9:Edge,0-3-7], [11:0-3-0,0-3-12], [14:0-2-0,0-4-8], [15:0-3-8,0-3-8], [16:0-3-8,0-4-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.68	in (loc) l/defl L/d
TCDL 20.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.18 12-14 >999 240
BCLL 0.0	Lumber DOL 1.15	WB 0.91	Vert(CT) -0.40 12-14 >936 180
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.07 9 n/a n/a
	Code IRC2018/TPI2014		
			PLATES
			MT20 197/144
			MT20HS 148/108
			Weight: 400 lb FT = 20%

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
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 (3-11-15 max.): 1-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-17

REACTIONS.

(size) 17=0-3-8, 9=0-3-8
Max Horz 17=238(LC 6)
Max Uplift 17=965(LC 4), 9=861(LC 9)
Max Grav 17=7222(LC 1), 9=6155(LC 1)

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

TOP CHORD 1-17=6199/852, 1-2=4306/602, 2-3=7034/933, 3-5=8306/1095, 5-6=8042/1089,
6-7=9109/1196, 7-8=10936/1480, 8-9=11822/1672
BOT CHORD 15-16=535/4306, 14-15=866/7034, 12-14=1008/8306, 11-12=1202/9742,
10-11=1437/10451, 9-10=1437/10451
WEBS 1-16=992/7378, 2-16=4267/658, 2-15=648/4702, 3-15=2195/368, 3-14=321/2193,
5-14=264/283, 5-12=622/106, 6-12=462/3653, 7-12=2399/492, 7-11=384/2264,
8-11=811/270, 8-10=180/602

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 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed;
MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 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 100 lb uplift at joint(s) except (jt=lb) 17=965, 9=861.
- 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.

Continued on page 2



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616226
2629082	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 Feb 1 11:22:45 2021 Page 2
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NOTES-

- 11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-3-4 oc max. starting at 0-1-12 from the left end to 24-5-0 to connect truss(es) to front face of bottom chord.
- 12) 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 front face of bottom chord.
- 13) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-6=-90, 6-9=-90, 17-18=-20
 - Concentrated Loads (lb)
 - Vert: 17=-687(F) 12=-680(F) 11=-670(F) 21=-680(F) 22=-680(F) 23=-680(F) 24=-680(F) 25=-680(F) 26=-680(F) 27=-680(F) 28=-680(F) 29=-670(F) 30=-670(F) 31=-1146(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616227
2629082	A2	Half Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:48 2021 Page 1
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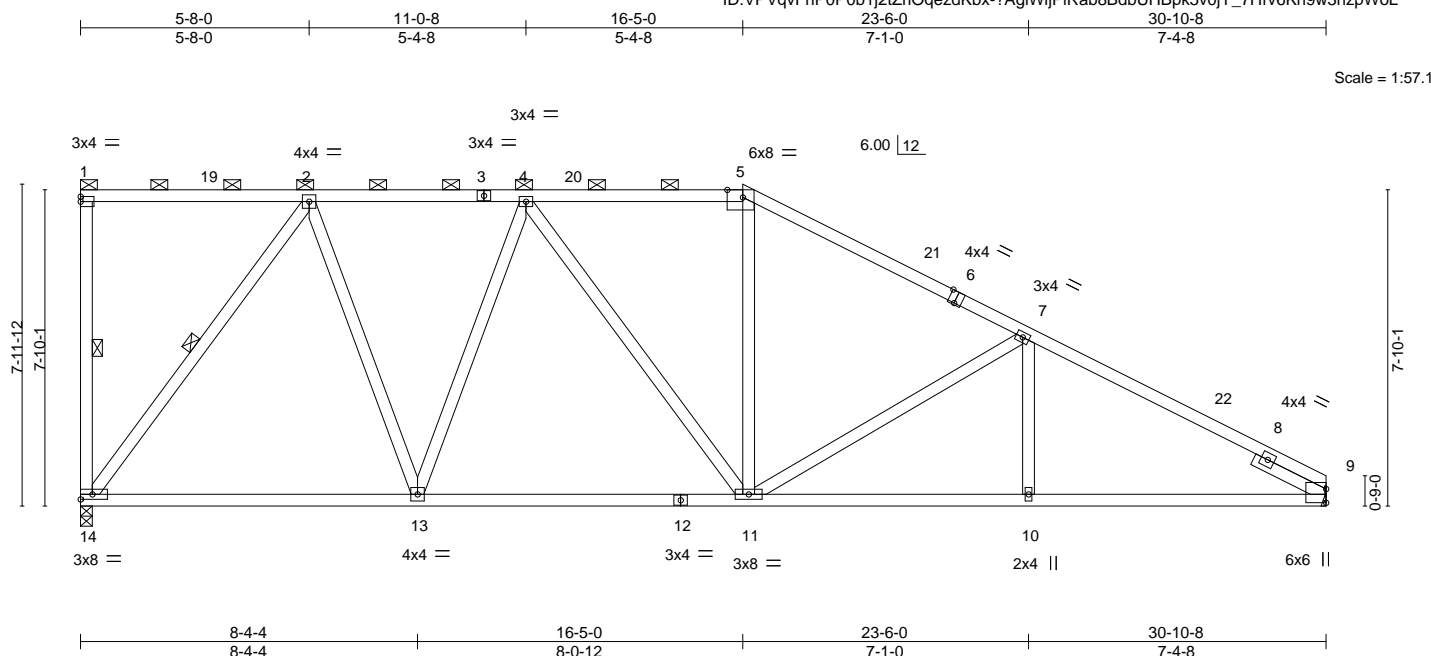


Plate Offsets (X,Y)-- [5:0-4-10,Edge], [6:0-2-0,Edge]		8-4-4 8-4-4		16-5-0 8-0-12		23-6-0 7-1-0		30-10-8 7-4-8	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.12 13-14	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.26 10-11	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.10 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 143 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-0-0

BRACING-

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

REACTIONS.

(size) 14=0-3-8, 9=Mechanical
Max Horz 14=-276(LC 10)
Max Uplift 14=-236(LC 8), 9=-164(LC 13)
Max Grav 14=1690(LC 1), 9=1690(LC 1)

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

TOP CHORD 2-4=-1350/221, 4-5=-1752/265, 5-7=-2101/263, 7-9=-2765/276
BOT CHORD 13-14=-86/1042, 11-13=-103/1596, 10-11=-167/2368, 9-10=-167/2368
WEBS 2-14=-1733/262, 2-13=-64/917, 4-13=-733/152, 4-11=-83/289, 5-11=0/387, 7-11=-713/223

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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 100 lb uplift at joint(s) except (jt=lb) 14=236, 9=164.
- 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.



February 2, 2021

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8.240 s Apr 4 2020 MiTek Industries, Inc. Mon Feb 1 13:49:51 2021 Page 1
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Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616228
2629082	A3	Hip	1	1	Job Reference (optional)	

8.240 s Apr 4 2020 MiTek Industries, Inc. Mon Feb 1 13:49:51 2021 Page 2
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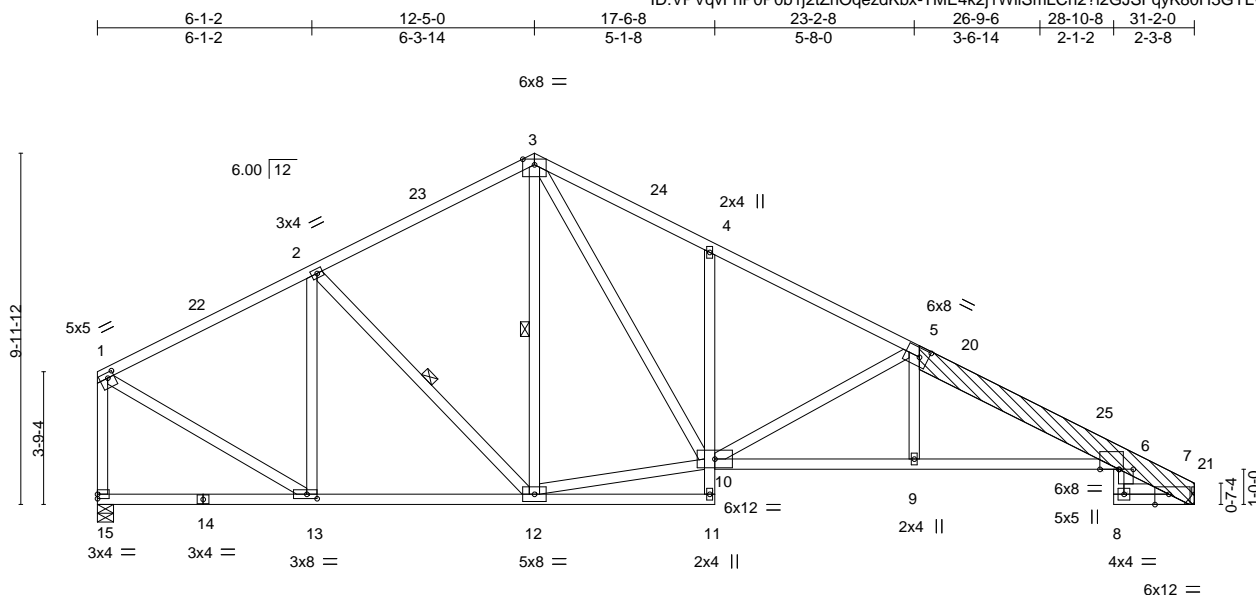
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss A4	Truss Type ROOF SPECIAL	Qty 3	Ply 1	Summit/woodside ridge #21/mo 144616229
Job Reference (optional)					

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

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ID:VPVqvFnP0P0b1j2tZrOqezdKbx-TME4k2j1WlSmLCn2?i2GJSFqyK80H3GYLvtbDzpWoK



Scale = 1:65.5

Plate Offsets (X, Y)--		[1:0-2-4,0-1-12], [5:0-3-0,0-3-0], [6:0-0-0,0-4-14], [6:0-6-8,0-0-0], [7:0-4-12,Edge], [13:0-3-8,0-1-8]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 20.0	Lumber DOL	1.15
BCLL 0.0	Rep Stress Incr	YES
BCDL 10.0	Code IRC2018/TPI2014	
	CSI.	
	TC 0.53	
	BC 0.87	
	WB 0.91	
	Matrix-AS	
	DEFL.	
	Vert(LL) -0.15	9-10 >999 240
	Vert(CT) -0.35	9-10 >999 180
	Horz(CT) 0.18	7 n/a n/a
	PLATES	MT20
	GRIP	197/144
	Weight: 197 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-7: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x8 SP 2400F 2.0E
LBR SCAB 5-7 2x8 SP 2400F 2.0E one side
SLIDER Right 2x4 SPF No.2 1-3-5

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-12, 2-12

REACTIONS.

(size) 15=0-5-8, 7=Mechanical
Max Horz 15=-201(LC 10)
Max Uplift 15=-148(LC 12), 7=-185(LC 13)
Max Grav 15=1699(LC 1), 7=1705(LC 1)

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

TOP CHORD 1-2=-1572/206, 2-3=-1619/263, 3-4=-2461/393, 4-5=-2506/296, 5-6=-3490/354,
6-7=-754/104, 1-15=-1640/196
BOT CHORD 12-13=-97/1314, 4-10=-494/190, 9-10=-230/3173, 6-9=-232/3166, 6-8=-28/306,
7-8=-43/409
WEBS 5-10=-1182/218, 5-9=0/272, 3-10=-267/1575, 10-12=-5/1245, 2-13=-631/130,
1-13=-139/1474

NOTES-

- Attached 9-0-1 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 2-0-0; starting at 4-2-6 from end at joint 5, nail 2 row(s) at 2" o.c. for 4-4-7.
- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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 100 lb uplift at joint(s) except (jt=lb) 15=148, 7=185.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



February 2, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss A5	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Summit/woodside ridge #21/mo 144616230
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

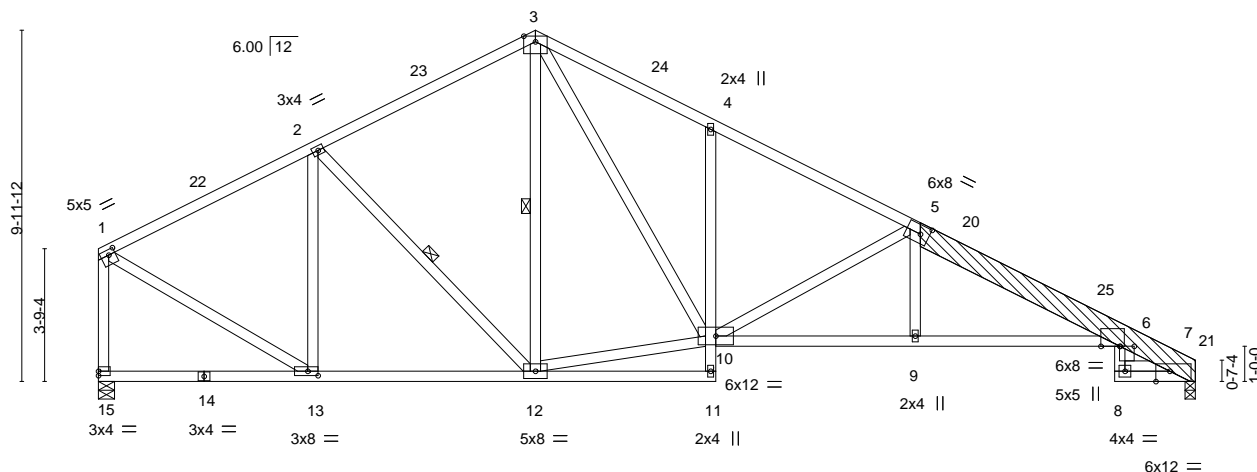
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:51 2021 Page 1

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6-1-2	12-5-0	17-6-8	23-2-8	26-9-6	28-10-8	31-2-0
6-1-2	6-3-14	5-1-8	5-8-0	3-6-14	2-1-2	2-3-8

6x8 =

Scale = 1:65.5



6-1-2	8-11-0	12-5-0	17-6-8	23-2-8	28-10-8	31-2-0
6-1-2	2-9-14	3-6-0	5-1-8	5-8-0	5-8-0	2-3-8

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.15	9-10	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.35	9-10	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.18	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
									Weight: 197 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-7: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x8 SP 2400F 2.0E
LBR SCAB 5-7 2x8 SP 2400F 2.0E one side
SLIDER Right 2x4 SPF No.2 1-3-5

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-12, 2-12

REACTIONS.

(size) 15=0-5-8, 7=0-3-8
Max Horz 15=-201(LC 10)
Max Uplift 15=-148(LC 12), 7=-185(LC 13)
Max Grav 15=1699(LC 1), 7=1705(LC 1)

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

TOP CHORD 1-2=-1572/206, 2-3=-1619/263, 3-4=-2461/393, 4-5=-2506/296, 5-6=-3490/354,
6-7=-754/104, 1-15=-1640/196
BOT CHORD 12-13=-97/1314, 4-10=-494/190, 9-10=-230/3173, 6-9=-232/3166, 6-8=-28/306,
7-8=-43/409
WEBS 5-10=-1182/218, 5-9=0/272, 3-10=-267/1575, 10-12=-5/1245, 2-13=-631/130,
1-13=-139/1474

NOTES-

- Attached 9-0-1 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 2-0-0; starting at 4-2-6 from end at joint 5, nail 2 row(s) at 2" o.c. for 4-4-7.
- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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 exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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 100 lb uplift at joint(s) except (jt=lb) 15=148, 7=185.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



February 2,2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:52 2021 Page 1
ID:VPVavFnP0P0b12tZrIQaezdKbp-uxvCM4mvpq40dpXMi7Flux4iq9KJdFXiFJ77CYzpw

2-5-8	6-11-8	11-5-8	12-5-0	17-6-8	23-2-8	28-10-8	31-2-0	32-0-8
2-5-8	4-6-0	4-6-0	0-11-8	5-1-8	5-8-0	5-8-0	2-3-8	0-10-8

Scale = 1:66.0

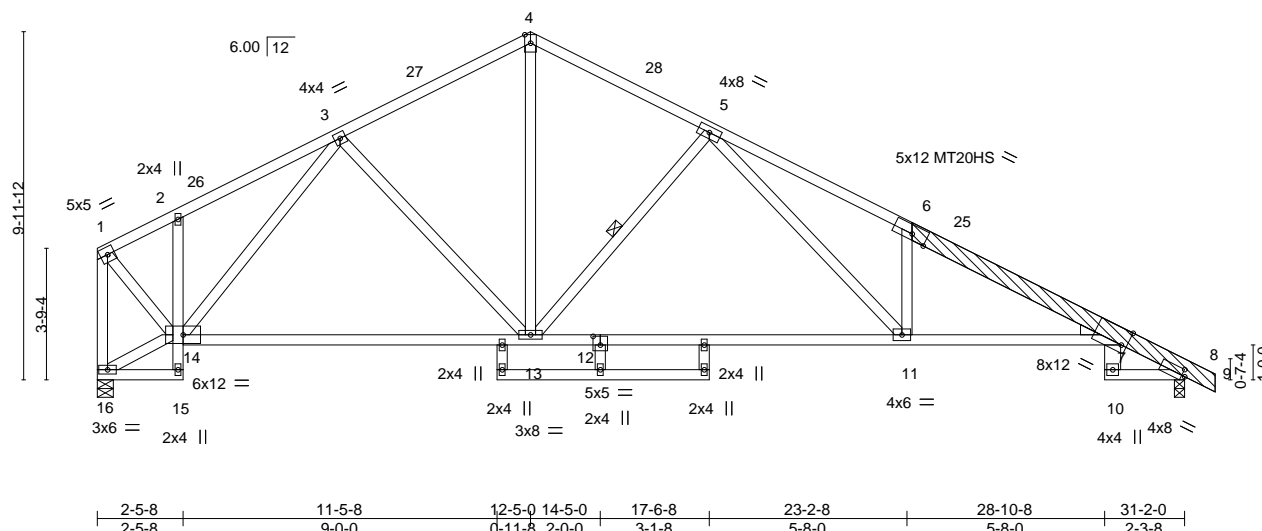


Plate Offsets (X,Y)--		[6:0-5-4,Edge], [7:0-1-13,0-5-7], [8:0-1-2,0-2-3], [12:0-2-8,0-3-0]		SFC		SCG		SCB		SCA	
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.74		Vert(LL)	-0.29 7-11	>999	240	MT20	197/144
TCDL 20.0		Lumber DOL	1.15	BC 0.97		Vert(CT)	-0.62 7-11	>598	180	MT20HS	148/108
BCLL 0.0		Rep Stress Incr	YES	WB 0.86		Horz(CT)	0.32 8	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS						Weight: 181 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
6-9: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
7-12: 2x4 SP 2400F 2.0E, 7-10: 2x6 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 6-9 2x6 SPF 2100F 1.8E one side
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-13

REACTIONS.

(size) 8=0-3-8, 16=0-5-8
 Max Horz 16=-208(LC 10)
 Max Uplift 8=-206(LC 13), 16=-148(LC 12)
 Max Grav 8=1787(LC 1), 16=1705(LC 1)

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

TOP CHORD 1-2=-1128/127, 2-3=-1215/181, 3-4=-1788/254, 4-5=-1781/269, 5-6=-3737/478,
6-7=-3562/344, 7-8=-902/128, 1-16=-1697/135

BOT CHORD 2-14=-327/123, 13-14=-104/1542, 11-13=-69/2149, 7-11=-211/3275

WEBS 6-11=-1001/249, 4-13=-114/1040, 3-14=-865/132, 1-14=-120/1497, 14-16=-65/276,
5-13=-1013/263, 5-11=-236/1588

NOTES-

- 1) Attached 9-11-5 scab 6 to 9, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-8 from end at joint 6, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 5-5-15 from end at joint 6, nail 2 row(s) at 3" o.c. for 4-2-15.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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 32-0-8 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
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=206, 16=148.
- 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.



February 2, 2021

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

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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/woodside ridge #21/mo	144616232
2629082	A7	Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:53 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-M7TbaQnXazCtFyWYHqm_R9cucZj6y5DrTzthk_zpWoG

2-5-8	6-7-8	10-9-8	11-5-8	14-0-8	17-6-8	19-1-3	23-2-8	28-10-8	31-2-0	32-0-8
2-5-8	4-2-0	4-2-0	0-8-0	2-7-0	3-6-0	1-6-11	4-1-5	5-8-0	2-3-8	0-10-8

Scale = 1:59.7

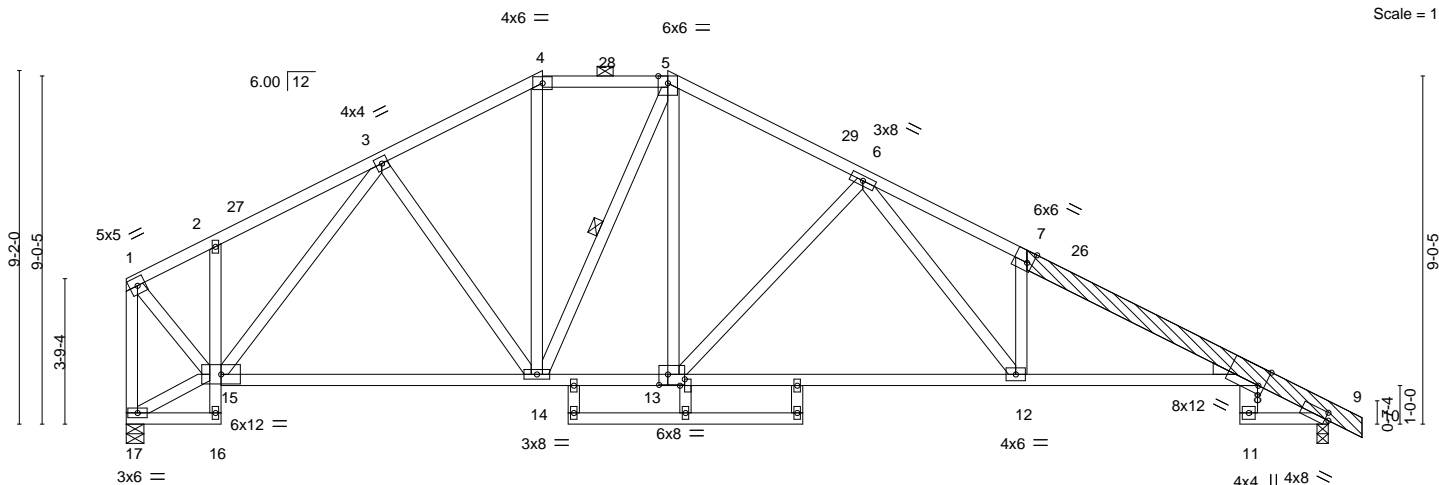


Plate Offsets (X,Y)--	[7:0-1-12,Edge], [8:0-1-13,0-5-7], [9:0-1-2,0-2-3], [13:0-2-12,0-3-4], [13:0-2-0,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.28	8-12	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.61	8-12	>606		
BCLL 0.0	Rep Stress Incr	YES	WB 0.90	Horz(CT)	0.32	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 193 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
7-10: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
8-13: 2x4 SP 2400F 2.0E, 8-11: 2x6 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 7-10 2x6 SPF 2100F 1.8E one side
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-7-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-14

REACTIONS.

(size) 9=0-3-8, 17=0-5-8
Max Horz 17=198(LC 10)
Max Uplift 9=210(LC 13), 17=152(LC 12)
Max Grav 9=1787(LC 1), 17=1705(LC 1)

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

TOP CHORD 1-2=-1122/133, 2-3=-1205/186, 3-4=-1813/267, 4-5=-1545/262, 5-6=-1994/276,
6-7=-3675/459, 7-8=-3535/348, 8-9=-902/130, 1-17=-1688/136
BOT CHORD 2-15=-324/124, 14-15=-90/1524, 13-14=-3/1701, 12-13=-107/2372, 8-12=-212/3244
WEBS 7-12=-915/212, 1-15=-120/1489, 5-13=-115/807, 4-14=-65/445, 3-15=-873/121,
5-14=-501/121, 6-13=-975/234, 6-12=-183/1360

NOTES-

- 1) Attached 9-11-5 scab 7 to 10, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-8 from end at joint 7, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 5-5-15 from end at joint 7, nail 2 row(s) at 3" o.c. for 4-2-15.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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 18-3-7, Interior(1) 18-3-7 to 32-0-8 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 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) except (jt=lb) 9=210, 17=152.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 2, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616233
2629082	A8	Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:54 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-qJ1znlnALHKks65lqYIDzM92qz08hgE?idcEGRzpWoF

2-5-8	8-9-8	11-5-8	16-0-8	17-6-8	23-2-8	28-10-8	31-2-0	32-0-8
2-5-8	6-4-0	2-8-0	4-7-0	1-6-0	5-8-0	5-8-0	2-3-8	0-10-8

Scale = 1:60.9

12x22 MT18HS ||

12x22 MT18HS ||

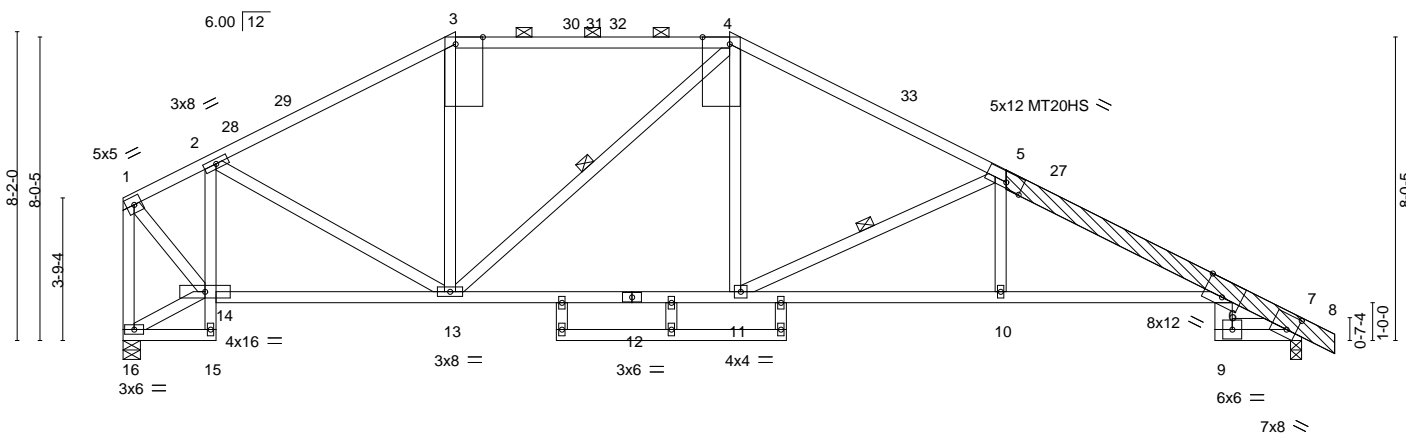


Plate Offsets (X, Y)--	[3:0-2-4,Edge], [4:0-2-4,Edge], [5:0-5-4,0-1-12], [6:0-6-0,0-5-7], [7:0-3-1,0-4-10]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.25	6-10	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-0.56	6-10	>656	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.30	7	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 173 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x4 SPF 1650F 1.5E, 5-8: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
6-12: 2x4 SPF 1650F 1.5E, 6-9: 2x6 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 5-8 2x6 SPF 2100F 1.8E one side
SLIDER Right 2x4 SPF No.2 1-5-3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-8-11 max.): 3-4.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-11, 4-13

REACTIONS.

(size) 7=0-3-8, 16=0-5-8
Max Horz 16=187(LC 10)
Max Uplift 7=216(LC 13), 16=156(LC 12)
Max Grav 7=1793(LC 1), 16=1697(LC 1)

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

TOP CHORD 1-2=1107/141, 2-3=1914/245, 3-4=1602/258, 4-5=2378/282, 5-6=3515/392,
6-7=1020/147, 1-16=1655/136
BOT CHORD 2-14=1085/197, 13-14=71/1026, 11-13=39/1978, 10-11=255/3242, 6-10=259/3240,
6-9=51/570, 7-9=114/1146
WEBS 2-13=100/708, 3-13=5/297, 4-11=50/696, 5-11=1368/279, 4-13=614/143,
1-14=142/1502

NOTES-

- 1) Attached 9-11-5 scab 5 to 8, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-8 from end at joint 5, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 5-5-15 from end at joint 5, nail 2 row(s) at 3" o.c. for 4-0-15.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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 13-0-7, Interior(1) 13-0-7 to 16-0-8, Exterior(2R) 16-0-8 to 20-3-7, Interior(1) 20-3-7 to 32-0-8 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) The Fabrication Tolerance at joint 3 = 12%, joint 4 = 12%
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=216, 16=156.
- 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 continuous sheathing be applied directly to the bottom chord.



February 2, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616233
2629082	A8	Hip	1	1	Job Reference (optional)	

NOTES-
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

8.240 s Apr 4 2020 MiTek Industries, Inc. Mon Feb 1 13:50:10 2021 Page
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-jKST5CX8T28gAx87aKCJ x64Mpn6zsEaXK1oPhPzUeB



Controlled representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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



Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616234
2629082	A9	Hip	1	1	Job Reference (optional)	

8.240 s Apr 4 2020 MiTek Industries, Inc. Mon Feb 1 13:50:11 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-BW0r1YnEMGXo5J81jYW9fF6D7LiJUkm_mMxjzpUeA

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616235
2629082	A10	Hip Girder	1	2	Job Reference (optional)	

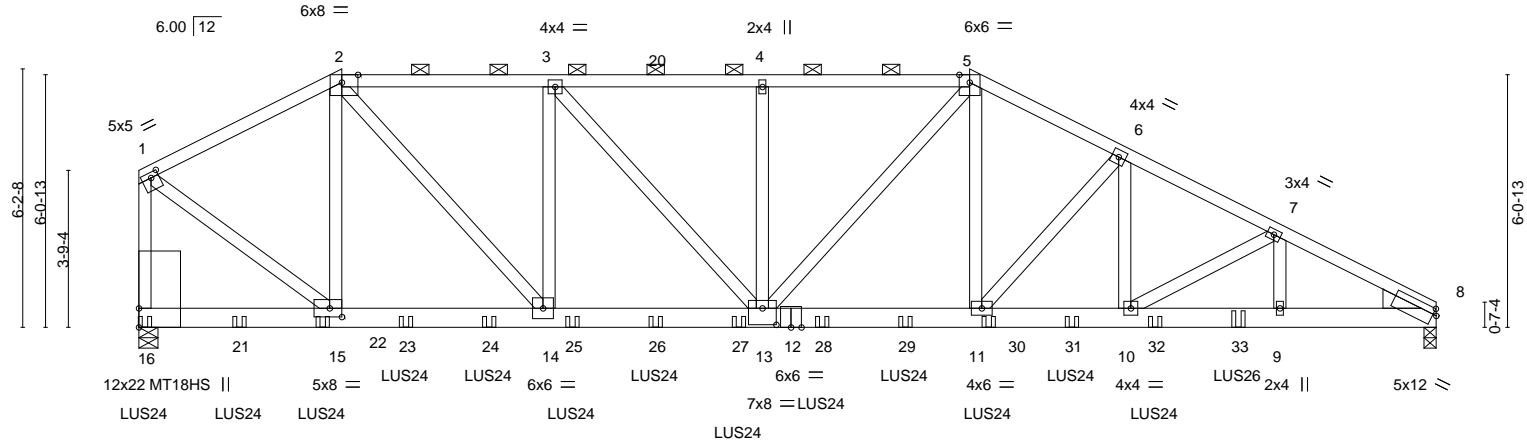
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:47 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-Xz6JJMin_7SkW13OwagaBuMr28doYRlZ51QMWLzpWoM

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 = 1:55.4



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

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.80	Vert(LL) -0.18 11-13 >999 240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.99	Vert(CT) -0.39 11-13 >962 180	MT18HS	197/144
BCLL 0.0	Rep Stress Incr NO	WB 0.67	Horz(CT) 0.08 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS		Weight: 359 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x6 SPF No.2 *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 2-10-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-8 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=153(LC 6)
 Max Uplift 8=825(LC 9), 16=848(LC 8)
 Max Grav 8=5602(LC 1), 16=6500(LC 1)

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

TOP CHORD 1-2=-4996/699, 2-3=-7477/1039, 3-4=-8648/1247, 4-5=-8651/1249, 5-6=-8893/1326,
 6-7=-10229/1520, 7-8=-10565/1574, 1-16=-5629/766
 BOT CHORD 14-15=-589/4456, 13-14=-980/7474, 11-13=-1004/7879, 10-11=-1251/9116,
 9-10=-1355/9336, 8-9=-1355/9336
 WEBS 2-15=-1691/256, 2-14=-658/4643, 3-14=-1879/338, 3-13=-330/1776, 4-13=-563/144,
 5-13=-199/1309, 5-11=-436/2657, 6-11=-1744/352, 6-10=-263/1636, 7-10=-256/119,
 1-15=-744/5450

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 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed;
 MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 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 100 lb uplift at joint(s) except (jt=lb) 8=825, 16=848.
- 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.

Continued on page 2



February 2, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616235
2629082	A10	Hip Girder	1	2	Job Reference (optional)	

- NOTES-**
- 11) 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 14-5-0 to connect truss(es) to back face of bottom chord.
 - 12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 12-0-0 oc max. starting at 4-5-0 from the left end to 24-5-0 to connect truss(es) to back face of bottom chord.
 - 13) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent at 26-5-0 from the left end to connect truss(es) to back face of bottom chord.
 - 14) Fill all nail holes where hanger is in contact with lumber.

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-2=-90, 2-5=-90, 5-8=-90, 16-17=-20
 - Concentrated Loads (lb)
 - Vert: 16=-601(B) 21=-593(B) 22=-558(B) 23=-595(B) 24=-595(B) 25=-595(B) 26=-595(B) 27=-595(B) 28=-595(B) 29=-595(B) 30=-558(B) 31=-585(B) 32=-585(B) 33=-1046(B)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616236
2629082	B1	Common	2	1		

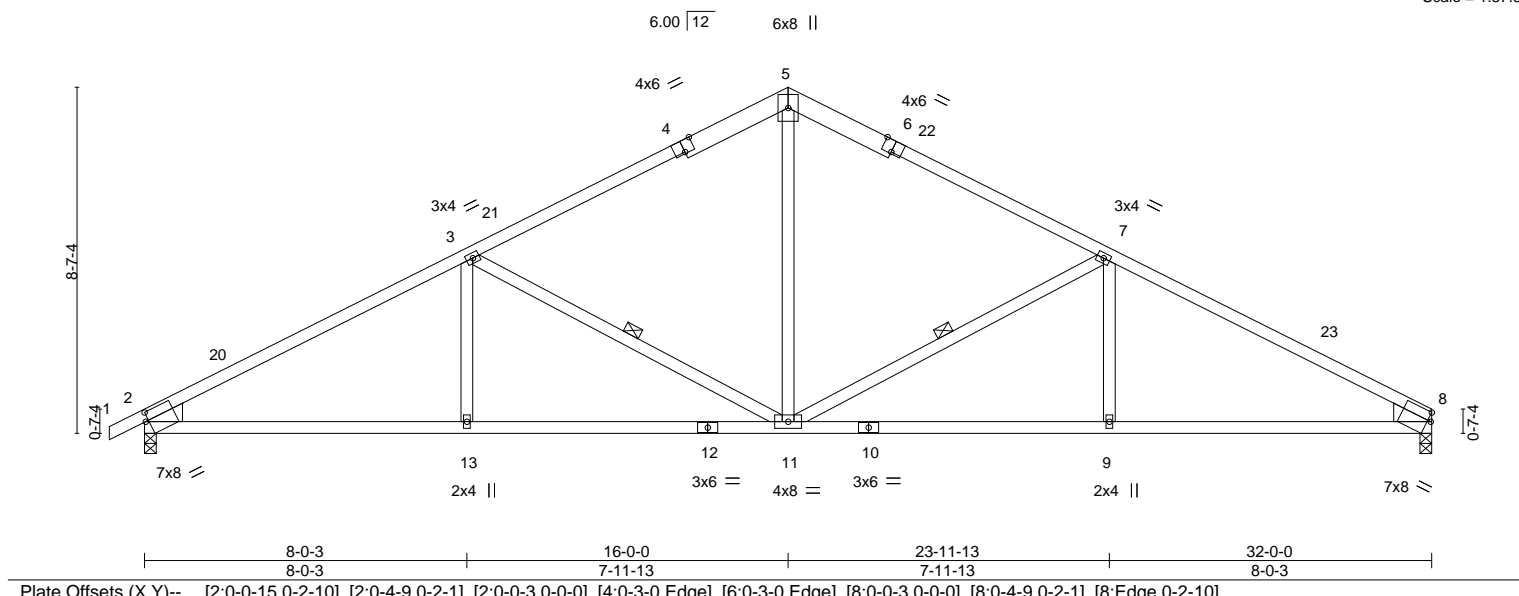
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:57 2021 Page 1

ID:VPVqvFnP0P0b1j2IZrlOqezdKbx-Euj5Pnq2eCiJjapJWgrwb?naUA56u2aRObrutmzpWoC

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 = 1:57.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.12 11-13	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.33 11-13	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.36	Horz(CT)	0.12 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 124 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *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=139(LC 12)
Max Uplift 2=197(LC 12), 8=180(LC 13)
Max Grav 2=1840(LC 1), 8=1759(LC 1)

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

TOP CHORD 2-3=-3008/305, 3-5=-2145/291, 5-7=-2145/293, 7-8=-3013/306
BOT CHORD 2-13=-306/2555, 11-13=-306/2555, 9-11=-187/2561, 8-9=-187/2561
WEBS 5-11=-65/1003, 7-11=-937/245, 7-9=0/302, 3-11=-930/243, 3-13=0/301

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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) except (jt=lb) 2=197, 8=180.
- 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.



February 2,2021

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

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



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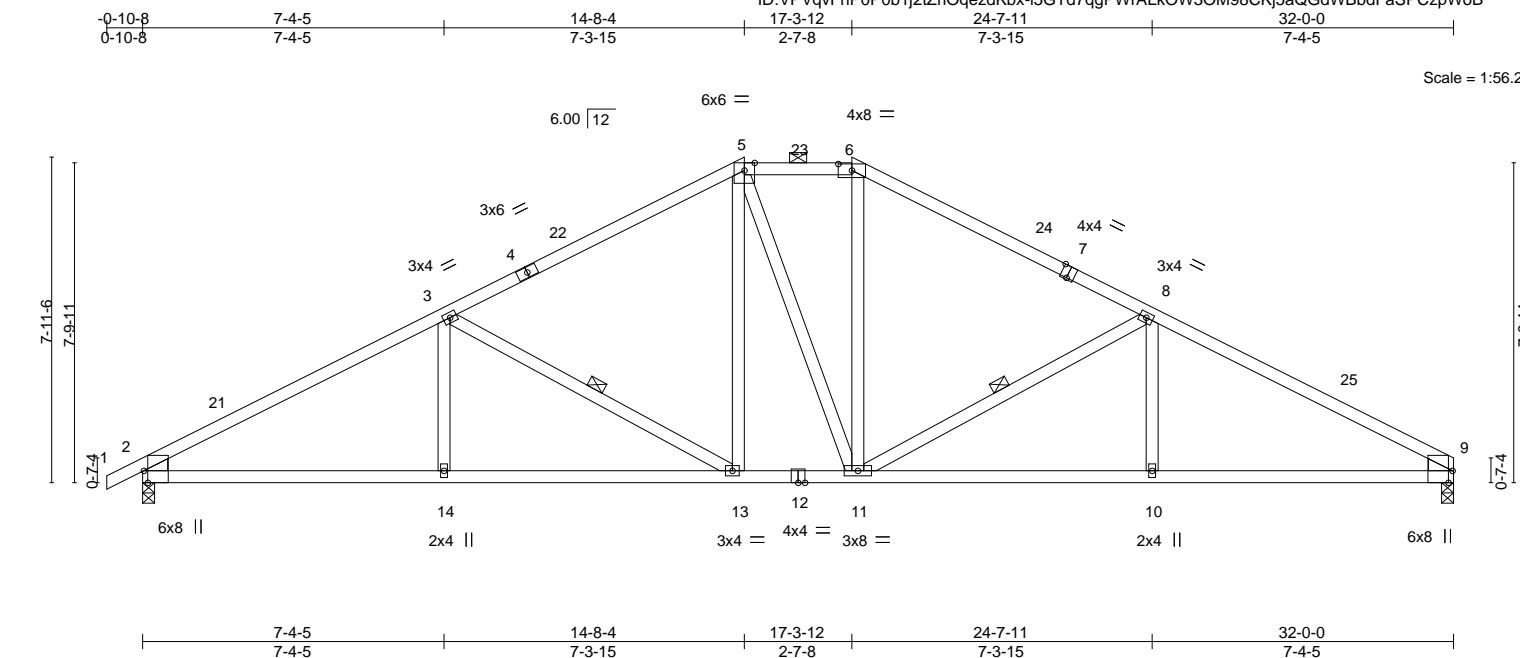


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [6:0-4-0,0-1-15], [7:0-2-0,Edge], [9:0-0-1,0-0-3], [9:0-0-3,0-5-0], [9:0-3-8,Edge]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.14	13-14	>999	240	MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.35	13-14	>999	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.13	9	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 132 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, except 2-0-0 oc purlins (3-9-7 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-13, 8-11

REACTIONS. (size) 2=0-3-8, 9=0-3-8
 Max Horz 2=129(LC 16)
 Max Uplift 2=-200(LC 12), 9=-182(LC 13)
 Max Grav 2=1840(LC 1), 9=1759(LC 1)

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

TOP CHORD	2-3=-3047/315, 3-5=-2262/290, 5-6=-1881/297, 6-8=-2263/293, 8-9=-3053/317
BOT CHORD	2-14=-313/2602, 13-14=-313/2602, 11-13=-115/1879, 10-11=-201/2609, 9-10=-201/2609
WEBS	3-14=0/275, 3-13=-841/225, 5-13=-65/506, 6-11=70/512, 8-11=-847/227, 8-10=0/275

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFLD=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=200, 9=182.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) 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.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 2, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616238
2629082	B3	Hip	1	1		

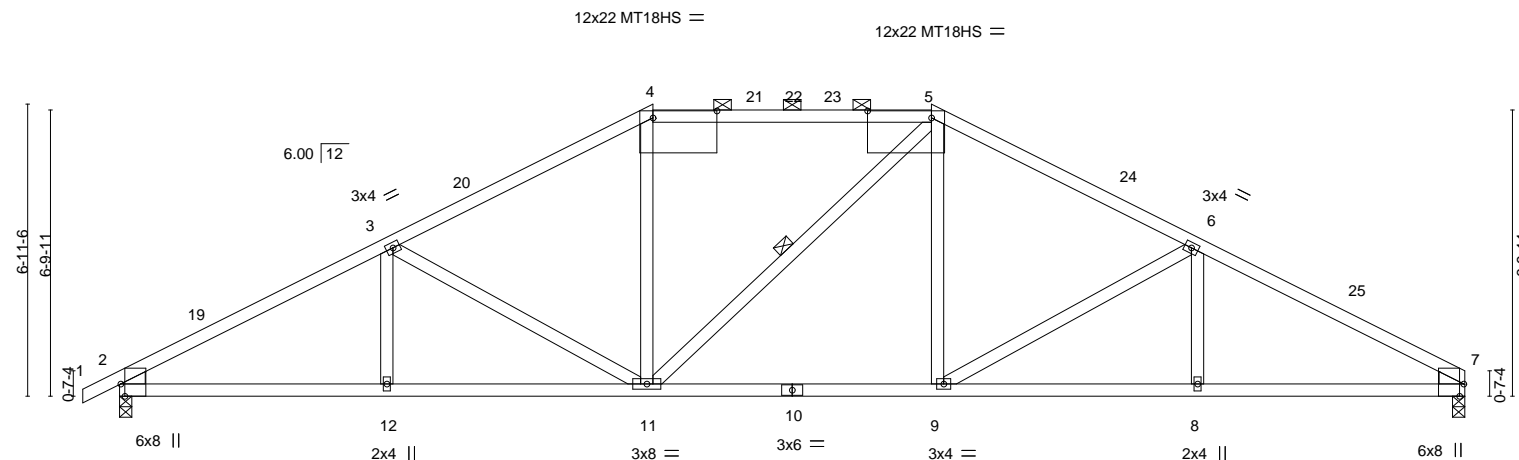
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:VPVqvFnP0P0b1j2tZrIQezdKbx-AHqsqTrlApz1ztzid5tOgQst4_ILMvCksvK?yepzWoA

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 = 1:54.8



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

Plate Offsets (X,Y)--												[2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [4:1-6-4,0-2-0], [5:1-6-4,0-2-0], [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 25.0				Plate Grip DOL 1.15				TC 0.86				Vert(LL) -0.14 11-12 >999 240				MT20				197/144			
TCDL 20.0				Lumber DOL 1.15				BC 0.88				Vert(CT) -0.32 8-9 >999 180				MT18HS				197/144			
BCLL 0.0				Rep Stress Incr YES				WB 0.54				Horz(CT) 0.13 7 n/a n/a											
BCDL 10.0				Code IRC2018/TPI2014				Matrix-AS								Weight: 127 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, except
 2-0-0 oc purlins (2-2-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 5-11

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
 Max Horz 2=113(LC 12)
 Max Uplift 2=203(LC 12), 7=186(LC 13)
 Max Grav 2=1840(LC 1), 7=1759(LC 1)

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

TOP CHORD 2-3=3067/326, 3-4=2470/305, 4-5=2099/310, 5-6=2470/306, 6-7=3075/329
 BOT CHORD 2-12=318/2629, 11-12=318/2629, 9-11=116/2100, 8-9=220/2638, 7-8=220/2638
 WEBS 3-11=617/186, 4-11=27/487, 5-9=35/488, 6-9=626/187

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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 100 lb uplift at joint(s) except (jt=lb) 2=203, 7=186.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



February 2,2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616239
2629082	B4	Hip	1	1		

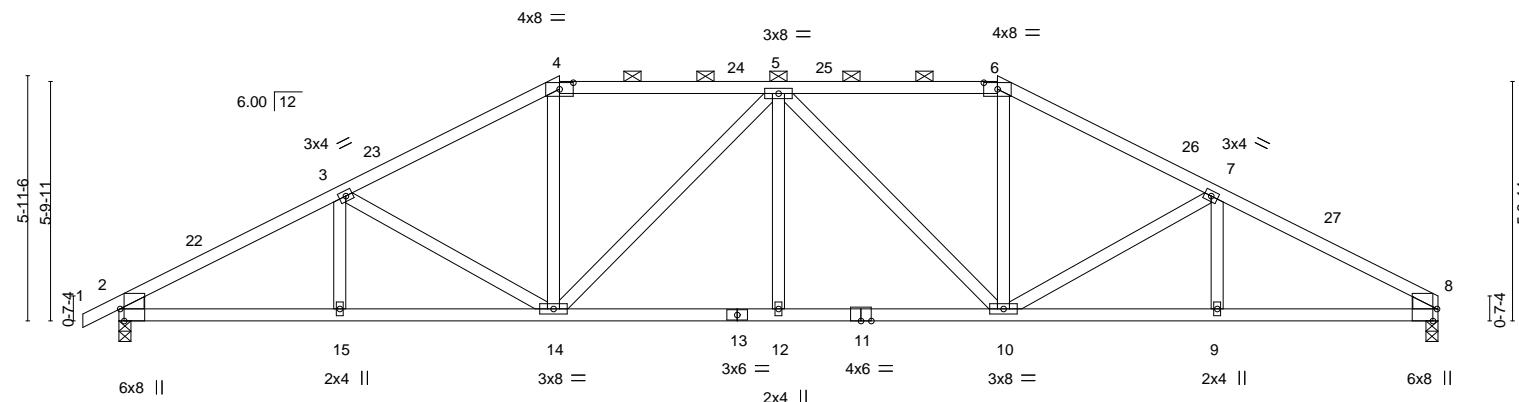
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:VPVqvFnP0P0b1j2tZrIQezdKbx-fTOE2psww75ua1YuBpOdDdP6nO5B5Lat4Z3YU4zpWo9

-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]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.15	12	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.32	10-12	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.13	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 133 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF 1650F 1.5E *Except*	2-0-0 oc purlins (3-6-3 max.): 4-6.
11-13: 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=96(LC 12)
Max Uplift 2=206(LC 12), 8=189(LC 13)
Max Grav 2=1840(LC 1), 8=1759(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3075/334, 3-4=-2654/308, 4-5=-2282/306, 5-6=-2283/305, 6-7=-2657/311,
7-8=-3085/337
BOT CHORD 2-15=-317/2646, 14-15=-317/2646, 12-14=-174/2593, 10-12=-174/2593, 9-10=-237/2657,
8-9=-237/2657
WEBS 3-14=-423/142, 4-14=-47/659, 5-14=-582/111, 5-10=-580/111, 6-10=-47/661,
7-10=-433/145

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=206, 8=189.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) 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.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 2, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616240
2629082	B5	ROOF SPECIAL	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:01 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-7gyCF9tZrDICB75IWsmrxGwoPHqIY1JDp60XzpWo8

-0-10-8	4-4-5	8-8-4	14-3-4	19-10-4	21-7-0	25-10-15	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	4-3-15	0-10-6	5-2-11	0-10-8

Scale = 1:56.2

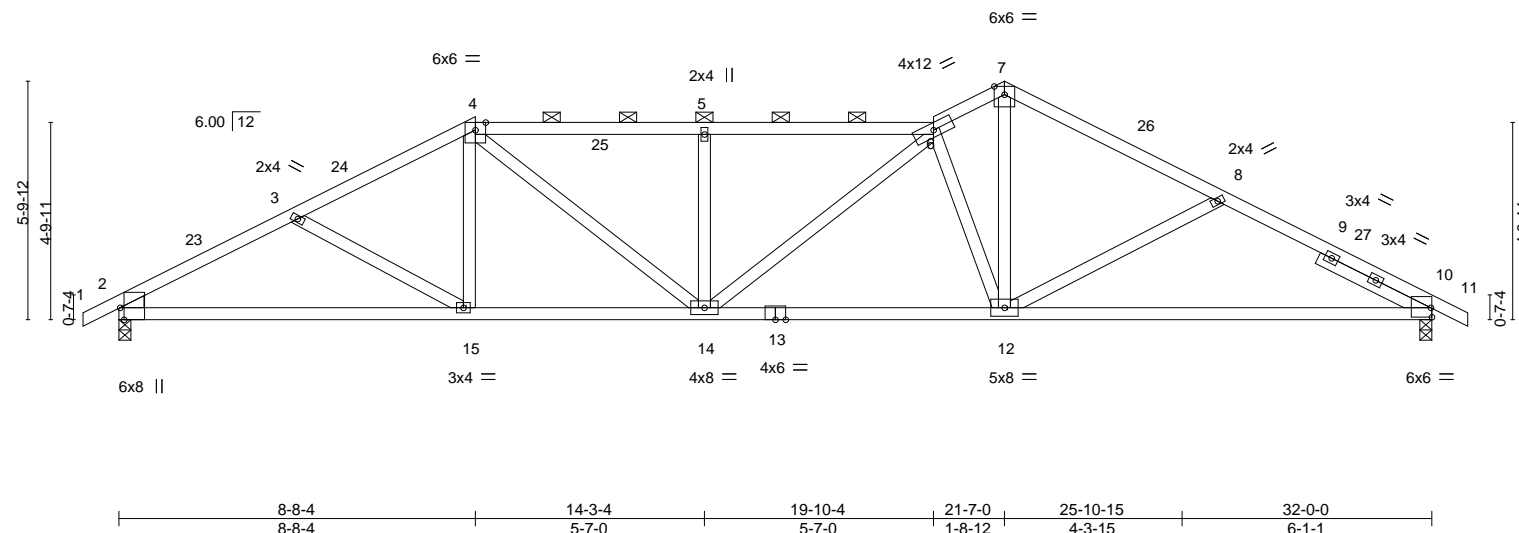


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [10:Edge,0-2-12]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 20.0	Lumber DOL	1.15
BCLL 0.0	Rep Stress Incr	YES
BCDL 10.0	Code	IRC2018/TPI2014
	CSI.	
	TC	0.68
	BC	0.91
	WB	0.75
	Matrix-AS	
	DEFL.	
	in (loc)	l/defl
	Vert(LL)	-0.19 12-21 >999 240
	Vert(CT)	-0.44 12-21 >865 180
	Horz(CT)	0.13 10 n/a n/a
	PLATES	GRIP
	MT20	197/144
	Weight: 131 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (2-7-4 max.): 4-6.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEDGE	
Left: 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 3-0-0	

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=90(LC 12)
Max Uplift 2=-242(LC 12), 10=-155(LC 13)
Max Grav 2=1830(LC 1), 10=1844(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3067/427, 3-4=-2788/384, 4-5=-3122/439, 5-6=-3122/439, 6-7=-2577/334,
7-8=-2623/306, 8-10=-2923/345
BOT CHORD 2-15=-398/2638, 14-15=-297/2454, 12-14=-282/2875, 10-12=-239/2557
WEBS 4-15=0/307, 4-14=-132/859, 5-14=-616/161, 6-14=-99/437, 7-12=-227/1956,
6-12=-1743/308, 8-12=-410/175

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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 100 lb uplift at joint(s) except (jt=lb) 2=242, 10=155.
- 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.



February 2,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

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ID:VPVgwEnP0P0h1i2tZrLOgezdkhXy-bsW TVuBSkl bdl iHIDR5l2lIQDRkQZEDAYtYfYzpnWoZ

-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

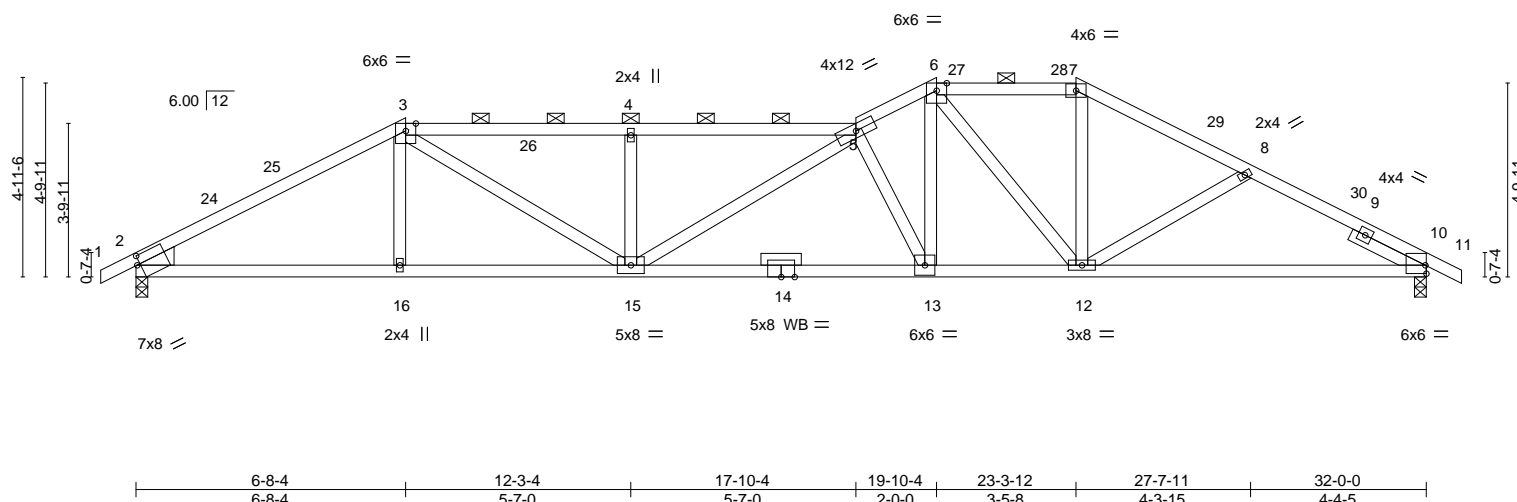


Plate Offsets (X,Y)-- [2:0-3,0-0-0], [2:0-4-9,0-2-1], [2:0-0-15,0-2-10], [10:Edge,0-2-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.23 13-15	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.57 13-15	>672	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.15 10	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 131 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
WEDGE	

Left: 2x6 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=-75(LC 17)
Max Uplift 2=-235(LC 12), 10=-139(LC 13)
Max Grav 2=1830(LC 1), 10=1844(LC 1)

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

TOP CHORD 2-3=-3059/384, 3-4=-3845/484, 4-5=-3845/484, 5-6=-3334/440, 6-7=-2401/357,
7-8=-2745/360, 8-10=-2945/380

BOT CHORD 2-16=-324/2624, 15-16=-326/2620, 13-15=-382/3851, 12-13=-246/2876, 10-12=-274/2537

WEBS 3-15=-195/1450, 4-15=-629/167, 5-13=-1984/317, 6-13=-239/1877, 6-12=-853/132,
7-12=-64/758

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; $V_{ult}=115\text{mph}$ (3-second gust) $V_{asd}=91\text{mph}$; $TCDL=6.0\text{psf}$; $BCDL=4.2\text{psf}$; $h=15\text{ft}$; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-8-4, and 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
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=235, 10=139.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) 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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 2, 2021



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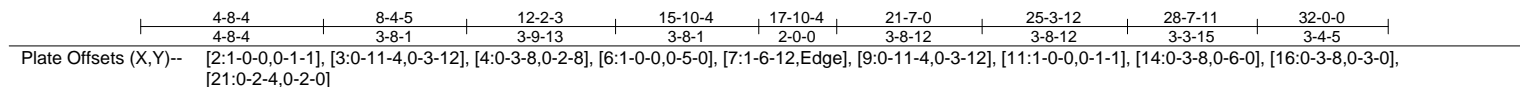
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 11 11:23:04 2021 Page 1

ID:VPVqvFnP0P0b1j2ZrOqezdKbx-XFeltAvR_MbJ3fsgQeTZNTZiG?SX13IT?B1mdszpWo5

Building Type	Builders FirstSource (Valley Center)	Valley Center, KS - 67147
0-10-8	10	10
4-8-4	10	10
8-4-5	10	10
12-2-3	10	10
15-10-4	10	10
17-10-4	10	10
21-7-0	10	10
25-3-12	10	10
28-7-11	10	10
32-0-0	10	10
32-10-8	10	10

Scale = 1:59



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.96	Vert(LL) -0.45 18-19 >849 240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.88	Vert(CT) -0.99 18-19 >390 180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr NO	WB 0.94	Horz(CT) 0.15 11 n/a n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS		Weight: 224 lb	FT = 20%

LUMBER-	
TOP CHORD	2x6 SPF No.2 *Except* 3-6: 2x6 SP 2400F 2.0E, 6-7: 2x8 SP 2400F 2.0E 7-9: 2x6 SPF 2100F 1.8E
BOT CHORD	2x8 SP 2400F 2.0E
WEBS	2x4 SPF No.2 *Except* 3-21, 4-19, 7-17, 8-16, 6-19: 2x4 SPF 1650F 1.5E
OTHERS	2x4 SPF No.2

BRACING- TOP CHORD	Structural wood sheathing directly applied or 1-11-14 oc purlins, except
BOT CHORD	2-0-0 oc purlins (2-1-2 max.): 3-6, 7-9. Rigid ceiling directly applied or 7-8-11 oc bracing.

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=59(LC 30)
Max Uplift 2=645(LC 8), 11=646(LC 4)
Max Grav 2=3755(LC 1), 11=4140(LC 1)

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

TOP CHORD 2-3=-7631/1321, 3-4=-10738/1849, 4-5=-13343/2267, 5-6=-13343/2267, 6-7=-11749/2036,
7-8=-10807/1880, 8-9=-9650/1704, 9-10=-8336/1450, 10-11=-7918/1309

BOT CHORD 2-22=-1175/6811, 21-22=-1173/6786, 19-21=-1811/10735, 18-19=-2381/14331,
17-18=-2373/14292, 16-17=-1624/9649, 14-16=-1234/7450, 13-14=-1129/7019,
11-13=-1129/7019

WEBS 3-22=-28/397, 3-21=-821/4670, 4-21=-2148/460, 4-19=-519/3036, 5-19=-465/123,
6-17=-5380/923, 7-17=-804/4616, 8-17=-311/1611, 8-16=-1352/244, 9-16=-522/3002,
9-14=-241/1266, 10-14=-216/702, 10-13=-441/107, 6-18=-611/131, 6-19=-1214/236

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=645, 11=646.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 8-5-12 oc max. starting at 11-1-4 from the left end to 23-7-0 to connect truss(es) to back face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.

Continued on EDP indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.



February 2, 2021

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



Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616242
2629082	B7	ROOF SPECIAL GIRDER	1	1	Job Reference (optional)	

- NOTES-**
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 381 lb down and 106 lb up at 4-8-4, and 957 lb down and 237 lb up at 17-10-4, and 957 lb down and 237 lb up at 25-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-90, 3-6=-90, 6-7=-90, 7-9=-90, 9-12=-90, 23-26=-20

Concentrated Loads (lb)

Vert: 3=-87(B) 20=-49(B) 22=-381(B) 17=-957(B) 16=-344(B) 14=-957(B) 29=-87(B) 30=-87(B) 31=-87(B) 32=-49(B) 33=-49(B) 34=-392(B) 35=-344(B) 36=-344(B)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616243
2629082	C1	Jack-Closed	5	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:04 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-XFeltAvR_MbJ3fsgQeTZNTZqN?ap16oT?B1mdszpWo5

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

Scale = 1:38.3

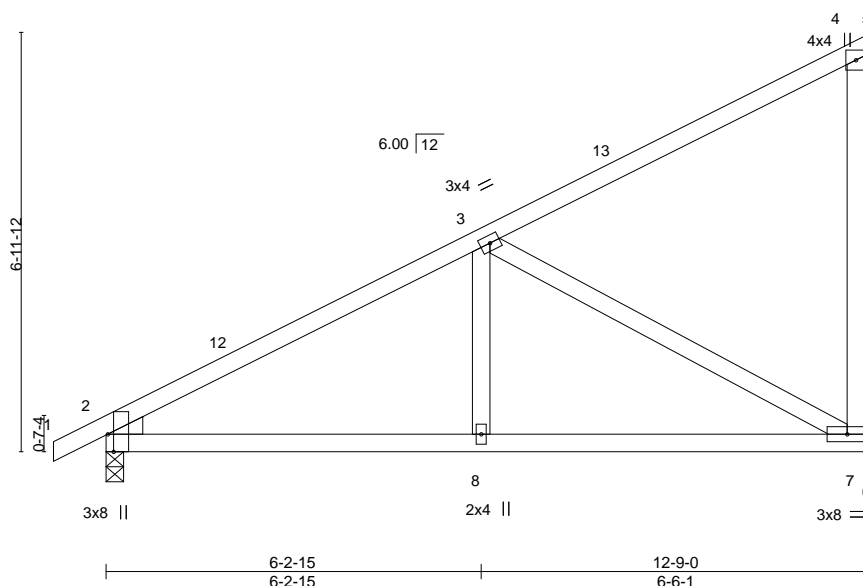


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.04	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.07	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							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=251(LC 11)
Max Uplift 2=-75(LC 12), 7=-77(LC 9)
Max Grav 2=768(LC 1), 7=700(LC 1)

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

TOP CHORD 2-3=-925/140
BOT CHORD 2-8=-257/742, 7-8=-257/742
WEBS 3-8=0/272, 3-7=-817/209

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- 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.
- 6) 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.



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	C2	Jack-Closed	1	1	144616244
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-?RC75Ww3lfjAhoRs_M_owg6_uPtOmeXdErnJ9lpWo4

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

Scale = 1:40.3

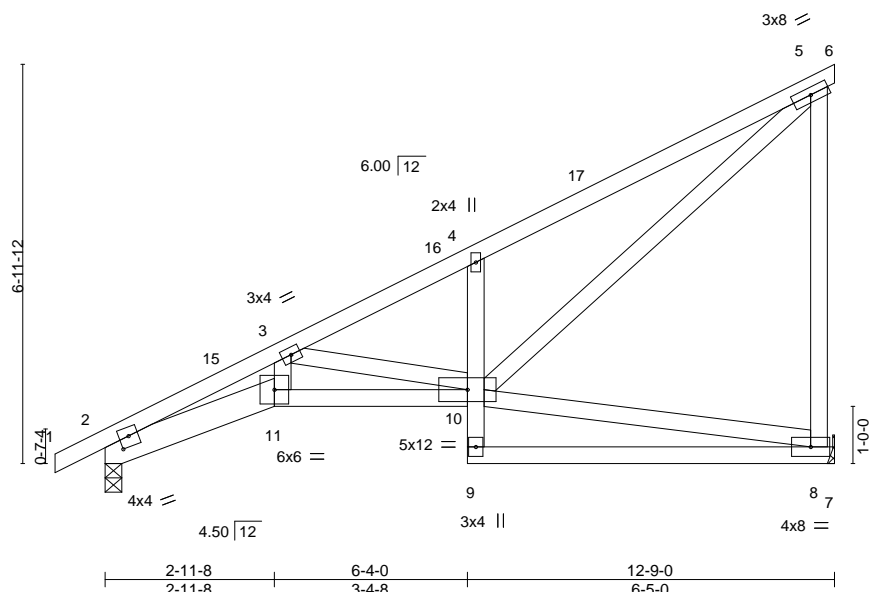


Plate Offsets (X,Y)--		[2:0-2-0,0-2-3]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.06 10-11 >999 240	MT20		197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.13 10-11 >999 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.07 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				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=251(LC 11)
 Max Uplift 8=77(LC 9), 2=74(LC 12)
 Max Grav 8=700(LC 1), 2=768(LC 1)

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

TOP CHORD 2-3=-2053/309, 3-4=-1061/150, 4-5=-1167/251, 5-8=-624/273
 BOT CHORD 2-11=-639/1835, 10-11=-578/1678, 4-10=-528/228
 WEBS 3-11=-166/517, 3-10=-766/247, 5-10=-381/1219

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) 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.



February 2, 2021

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

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616245
2629082	C3	Jack-Closed	3	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:06 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-TdVIsxhWzr1y02X3V1Suf7kpBvV5VmTVWthkzpWo3

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 = 1:38.5

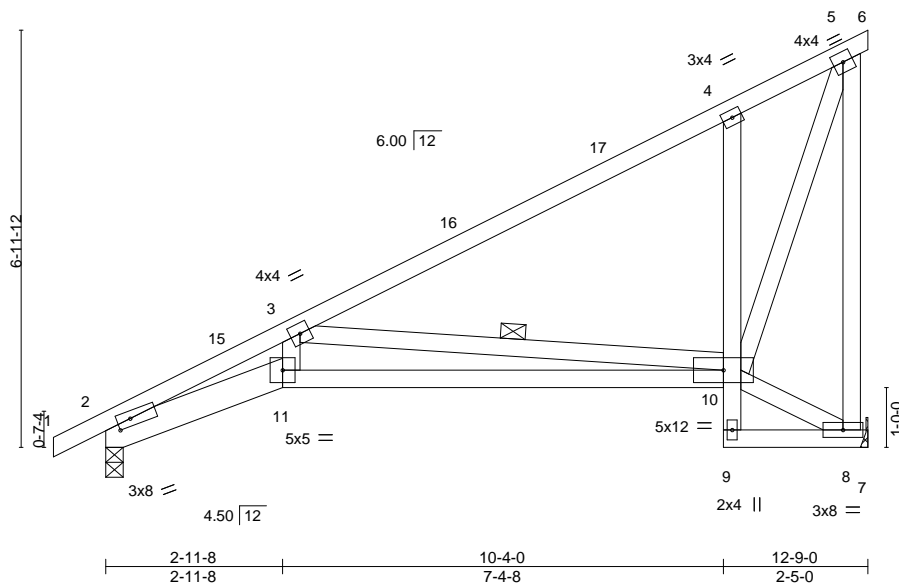


Plate Offsets (X,Y)--	[2:0-2-11,0-1-8]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.11 10-11	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.28 10-11	>528	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.12 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					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=251(LC 11)
 Max Uplift 8=77(LC 9), 2=74(LC 12)
 Max Grav 8=700(LC 1), 2=768(LC 1)

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

TOP CHORD 2-3=-2357/357, 3-4=-552/90, 4-5=-454/145, 5-8=-676/238
 BOT CHORD 2-11=-692/2152, 10-11=-648/1988, 4-10=-565/273
 WEBS 3-11=-127/627, 3-10=-1622/467, 5-10=-297/923

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) 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.



February 2, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616248
2629082	C6	Half Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:08 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-Q0tFjYyy2a5lYG9RfUYVYJkOBcqyz2d3wo?zmdzpWo1

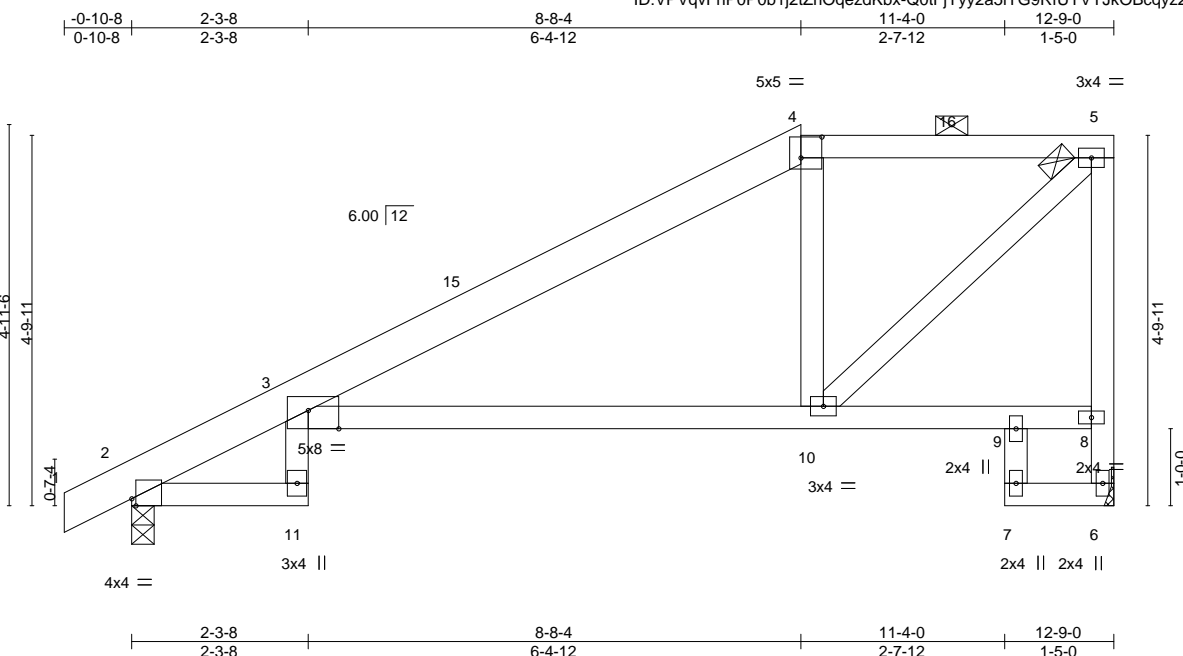


Plate Offsets (X,Y)-- [2:0-0-10,Edge], [3:0-4-12,Edge], [4:0-3-4,0-3-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.22	3-10	>693	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.50	3-10	>303	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.27	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 56 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *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=174(LC 11)
Max Uplift 6=90(LC 9), 2=102(LC 12)
Max Grav 6=690(LC 1), 2=775(LC 1)

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

TOP CHORD 3-13=414/78, 3-4=749/125, 4-5=634/154, 6-8=678/171, 5-8=700/183
BOT CHORD 3-10=245/652
WEBS 4-10=401/195, 5-10=247/868

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=102.
- 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.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 2,2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616249
2629082	C7	Half Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:09 2021 Page 1

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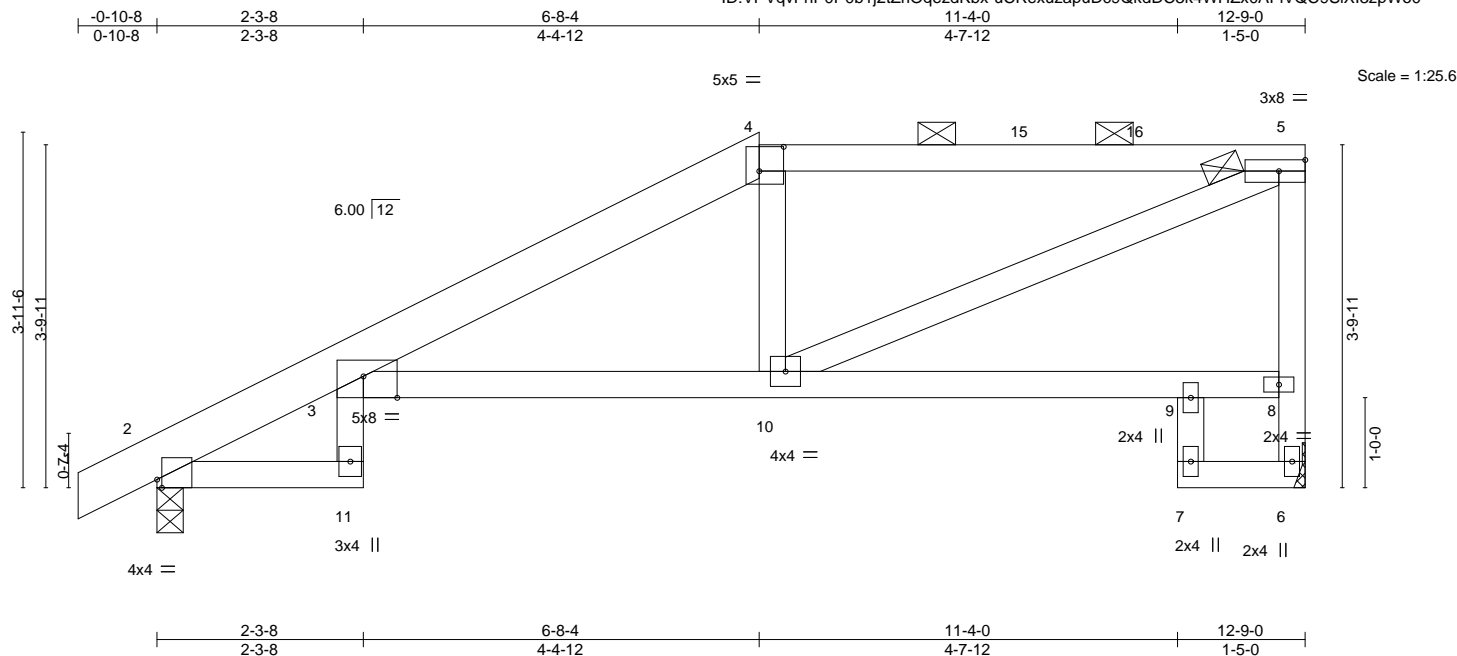


Plate Offsets (X,Y)--		[2:0-0-10,Edge], [3:0-4-8,Edge], [4:0-3-4,0-3-4]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.15 3-10 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.33 3-10 >459 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.21 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 53 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *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 (5-2-9 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=137(LC 11)
Max Uplift 6=95(LC 9), 2=105(LC 12)
Max Grav 6=690(LC 1), 2=775(LC 1)

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

TOP CHORD 3-13=-389/84, 3-4=-1087/193, 4-5=-985/231, 6-8=-667/145, 5-8=-639/163
BOT CHORD 3-10=-310/1001
WEBS 4-10=-267/144, 5-10=-272/984

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=105.
- 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.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 2, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616250
2629082	C8	Half Hip Girder	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:10 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOQezdKbx-MO?08E_CaCLTnaJpmvazdkpl4QX_RvhMO6U4qVzpWo?

Job Reference (optional)

0-10-8	2-3-8	4-8-4	8-0-2	11-4-0	12-9-0
0-10-8	2-3-8	2-4-12	3-3-14	3-3-14	1-5-0

Scale = 1:23.1

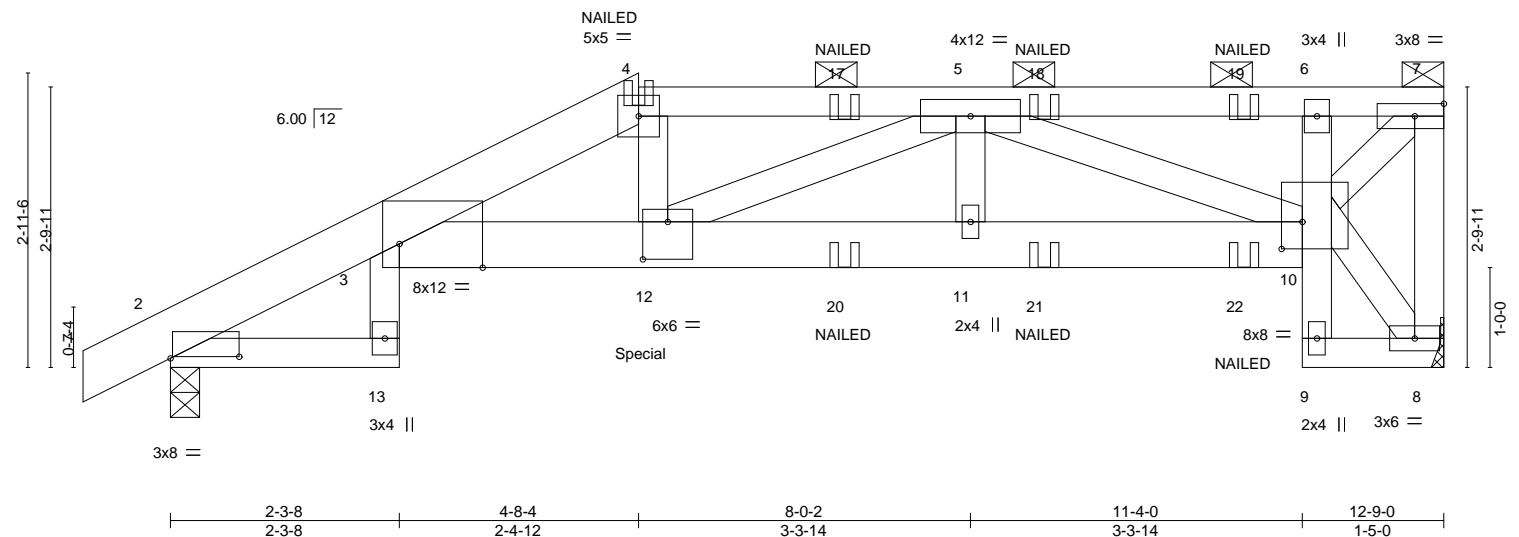


Plate Offsets (X,Y)-- [2:0-8-4,0-0-3], [3:0-10-0,Edge], [10:0-2-8,0-3-4], [12:0-3-0,0-4-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.12 3-12 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.26 3-12 >579 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.21 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 64 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E *Except*
4-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-10: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-6 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=Mechanical, 2=0-3-8
Max Horz 2=99(LC 7)
Max Uplift 8=255(LC 5), 2=247(LC 8)
Max Grav 8=1166(LC 1), 2=1205(LC 1)

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

TOP CHORD 3-15=-596/121, 3-4=-3064/694, 4-5=-2948/691, 5-6=-992/220, 6-7=-870/191,
7-8=-1115/262
BOT CHORD 3-12=-691/2865, 11-12=-619/2587, 10-11=-619/2587, 6-10=-316/104
WEBS 4-12=-122/620, 5-12=-120/396, 5-10=-1726/401, 7-10=-339/1399

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=255, 2=247.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (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) 425 lb down and 152 lb up at 4-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=90, 3-4=90, 4-7=90, 13-14=20, 3-10=20, 8-9=20



February 2,2021

Continued on page 2

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616250
2629082	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 Feb 1 11:23:11 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-qbZOLZ?qLVTKPju0Kc5C9xMvqqtdAMwVcmEeNyzpWo_

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 4=-67(F) 12=-425(F) 17=-67(F) 18=-67(F) 19=-67(F) 20=-71(F) 21=-71(F) 22=-71(F)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616251
2629082	CJ1	Diagonal Hip Girder	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:11 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-qbZOLZ?qLVTKPju0Kc5C9xM1iqtIASgVcmEeNyzpWo_

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1-2-14	3-2-2	3-3-15

Scale = 1:17.4

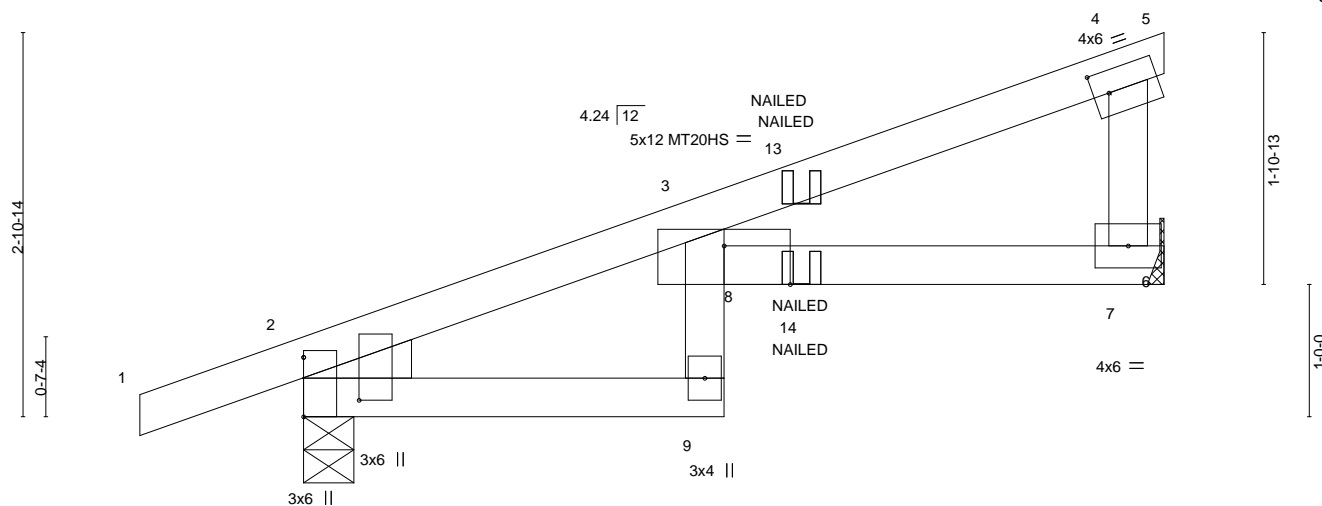


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0], [3:0-6-0,Edge], [3:0-1-12,0-0-10], [4:0-1-6,0-2-0], [8:0-0-0,0-1-12]
-----------------------	--

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.06	7-8	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.12	7-8	>622	180	MT20HS
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.05	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						
									Weight: 21 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=89(LC 5)
Max Uplift 7=93(LC 8), 2=109(LC 4)
Max Grav 7=382(LC 1), 2=487(LC 1)

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

TOP CHORD 2-3=-486/92, 3-4=-279/62
BOT CHORD 2-9=-109/401, 7-8=-63/263

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=109.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 9-10=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 14=-55(F=-28, B=-28)



February 2,2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616252
2629082	CJ2	Diagonal Hip Girder	2	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:12 2021 Page 1
Job Reference (optional)						ID:VPVqvFnP0P0b1j2tZrIQezdKbx-In7mZv?S6pbB0tTCuKcRi9vEGDlvvwerQzBuOzpWnz

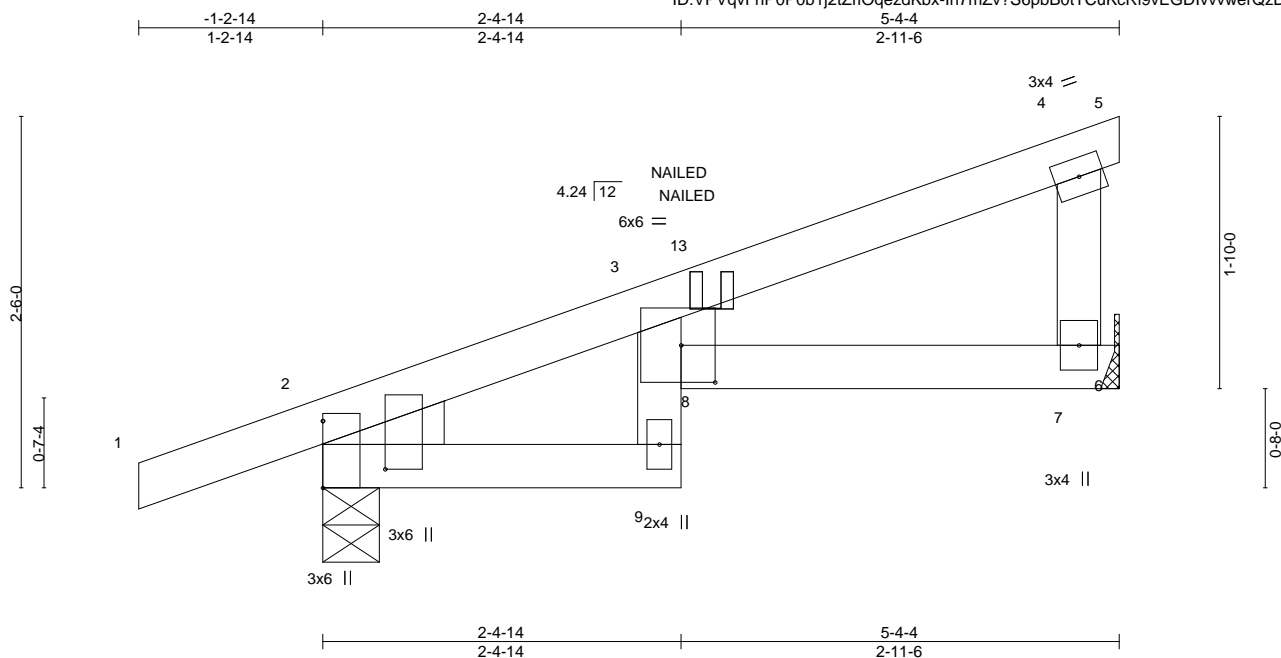


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0], [3:0-2-12,0-3-0], [3:0-1-12,0-0-10], [8:0-0-0,0-1-12]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.02 8 >999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.04 7-8 >999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01 7 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR					Weight: 17 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 5-4-4 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 5)
Max Uplift 7=52(LC 8), 2=83(LC 4)
Max Grav 7=283(LC 1), 2=404(LC 1)

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

TOP CHORD 2-3=-330/39
BOT CHORD 2-9=-56/271

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
- 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.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 9-10=-20, 6-8=-20



February 2,2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616253
2629082	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 Feb 1 11:23:13 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-mzg8mF04t7j2e12OS17gFMRRWdhveLio44jkQqzpWny



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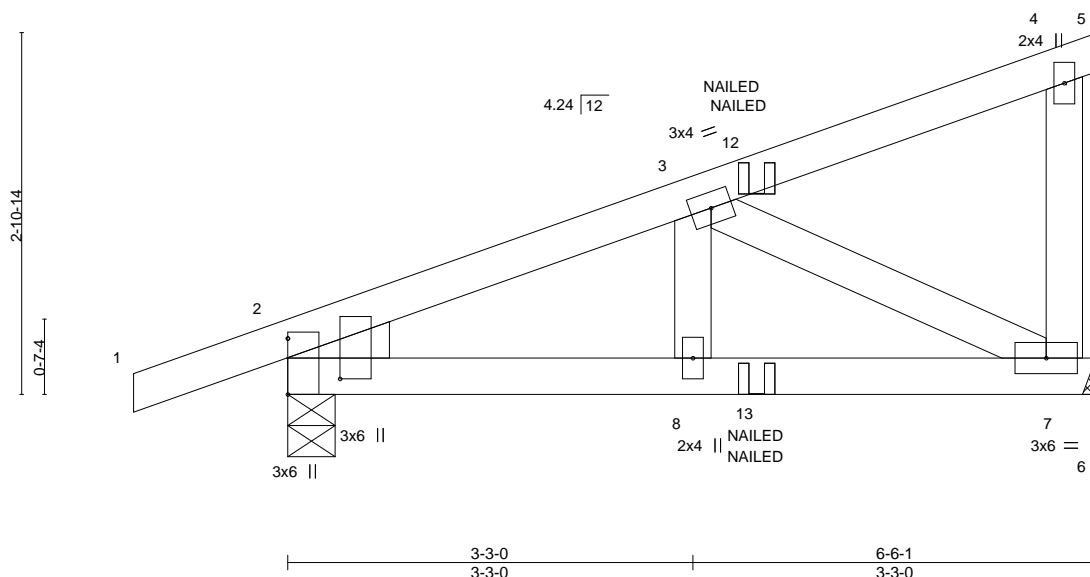


Plate Offsets (X,Y)--		[2:0-3-14,0-5-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.01	8	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.01	7-8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							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=107(LC 7)
Max Uplift 7=78(LC 8), 2=101(LC 4)
Max Grav 7=360(LC 1), 2=473(LC 1)

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

TOP CHORD 2-3=-464/79
BOT CHORD 2-8=-103/407, 7-8=-103/407
WEBS 3-7=-453/119

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=101.
- 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.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 6-9=-20
Concentrated Loads (lb)
Vert: 13=-19(F=-10, B=-10)



February 2, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:18.6

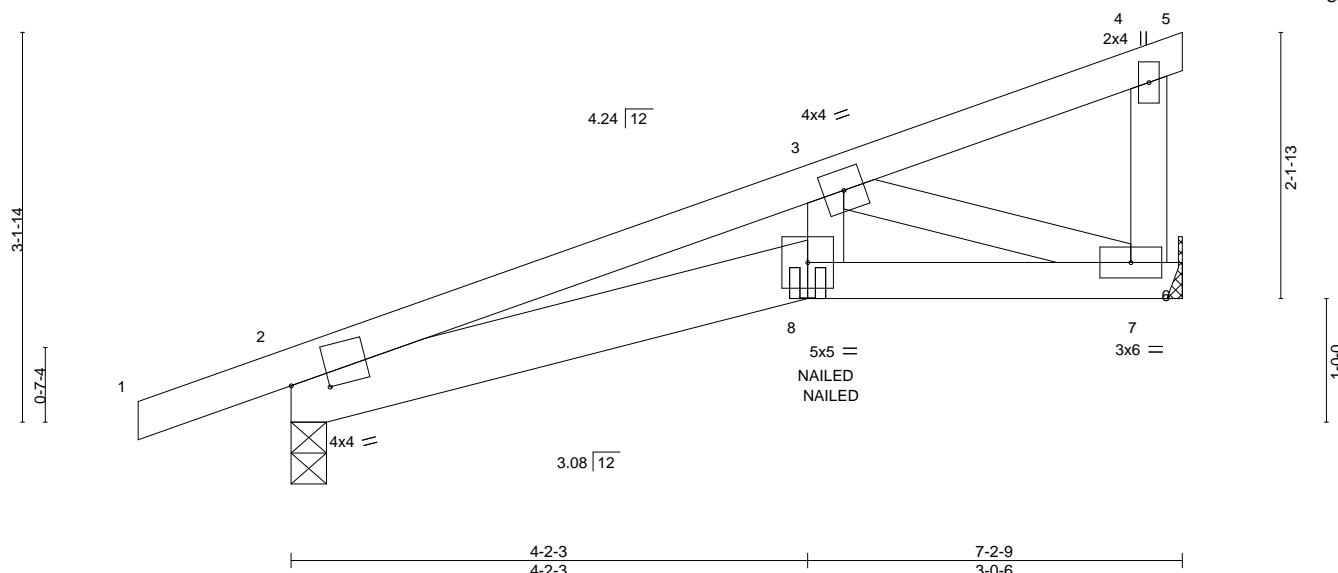


Plate Offsets (X,Y)--		[2:0-3-10,0-1-1]										
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.03	8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.05	8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 27 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-9-7 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2 *Except*		
	2-8: 2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 9-11-12 oc bracing.
WEBS	2x4 SPF No.2		

REACTIONS. (size) 2=0-3-7, 7=Mechanical
Max Horz 2=99(LC 5)
Max Uplift 2=-141(LC 4), 7=-141(LC 8)
Max Grav 2=600(LC 1), 7=536(LC 1)

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

TOP CHORD 2-3=-1427/387
BOT CHORD 2-8=-396/1329, 7-8=-352/1187
WEBS 3-8=-184/602, 3-7=-1246/386

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=141, 7=141.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 8=-244(F=-122, B=-122)



February 2, 2021



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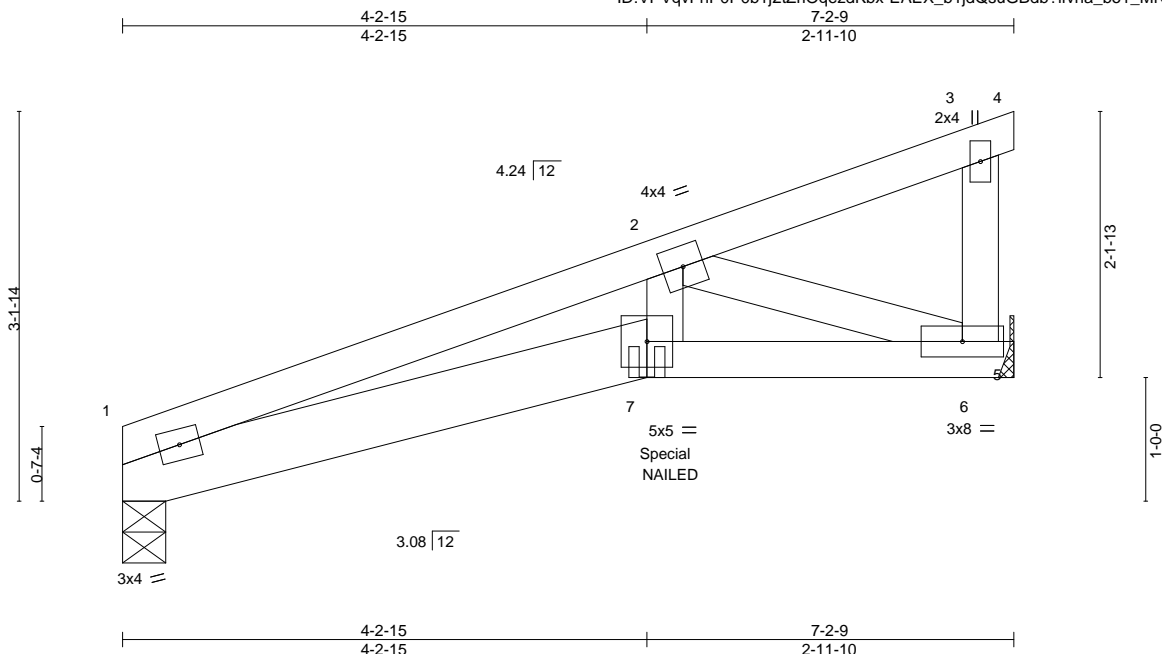


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616255
2629082	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 Feb 1 11:23:14 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-EAEX_b1jdQsuGBdb?lfvna_bo1_MNm9xIkSlyGzpWnx



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.03	7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.05	7	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.21	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 25 lb	FT = 20%

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 4-8-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-11-14 oc bracing.

REACTIONS.

(size) 1=0-4-3, 6=Mechanical
Max Horz 1=90(LC 5)
Max Uplift 1=91(LC 4), 6=145(LC 8)
Max Grav 1=481(LC 1), 6=555(LC 1)

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

TOP CHORD 1-2=-1449/387
BOT CHORD 1-7=-396/1348, 6-7=-352/1203
WEBS 2-7=-186/624, 2-6=-1269/387

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 6=145.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-40, 7-8=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 7=-256(F=-134, B=-122)



February 2, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616256
2629082	CJ7	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 Feb 1 11:23:15 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-iMovBx2LOk_lLcNzSA8KnXi?RKD6Gg5XOCrVjzpWnw

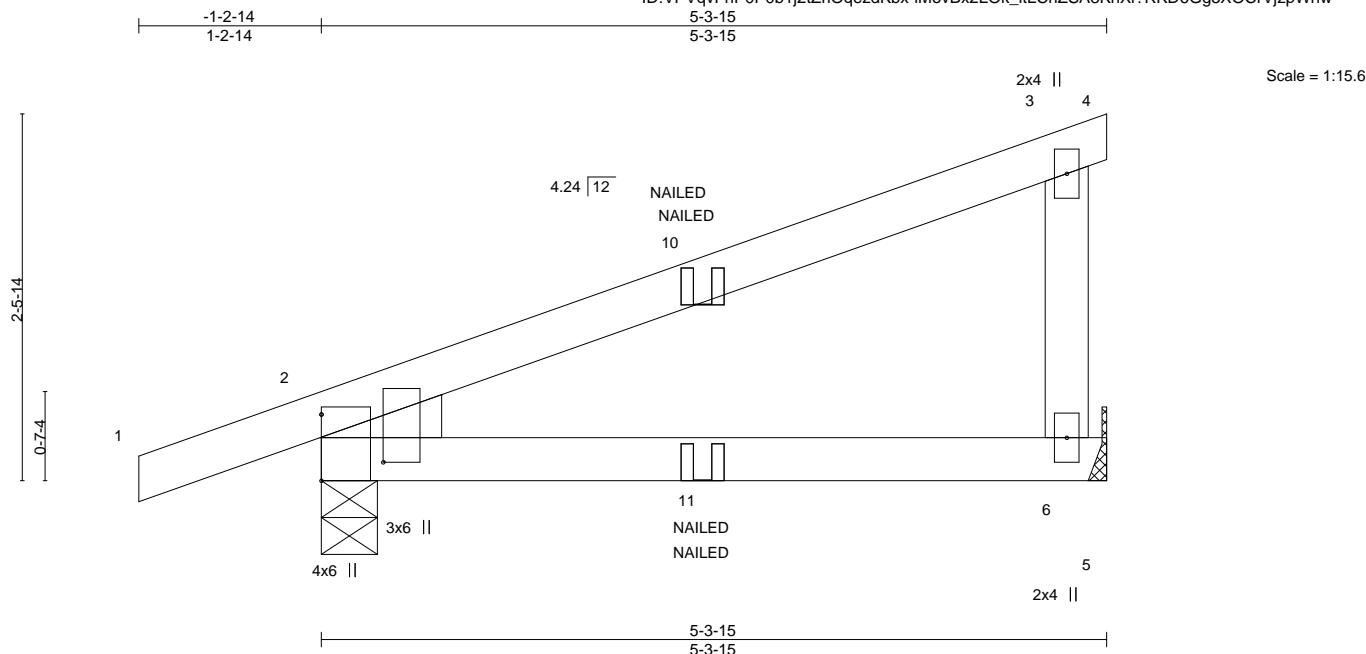


Plate Offsets (X,Y)--		[2:0-3-14,0-5-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.48	Vert(LL)	-0.04	6-9	>999	240	MT20		197/144	
TCDL	20.0	Lumber DOL 1.15		BC	0.36	Vert(CT)	-0.09	6-9	>705	180				
BCLL	0.0	Rep Stress Incr NO		WB	0.00	Horz(CT)	0.02	2	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP										
										Weight: 17 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 5-3-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=Mechanical, 2=0-4-9
Max Horz 2=90(LC 7)
Max Uplift 6=55(LC 8), 2=88(LC 4)
Max Grav 6=285(LC 1), 2=406(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
- 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.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=90, 3-4=-40, 5-7=-20
Concentrated Loads (lb)
Vert: 11=-7(F=-5, B=-1)



February 2, 2021

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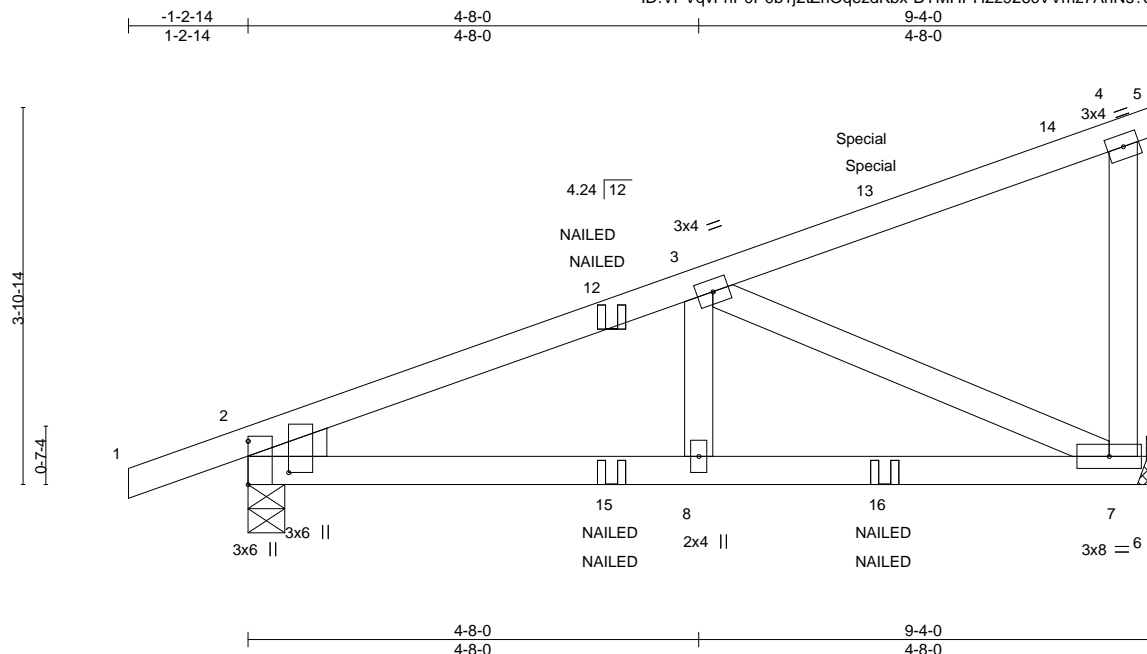
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616257
2629082	CJ9	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 Feb 1 11:23:16 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-BYMHPH2z926cVvmz7AhNs?3uWrfjremEm2xP19zpWnv



Scale: 1/2"=1'

Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS								
											Weight: 35 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=132(LC 7)
Max Uplift 7=121(LC 8), 2=134(LC 4)
Max Grav 7=641(LC 1), 2=676(LC 1)

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

TOP CHORD 2-3=-897/143
BOT CHORD 2-8=-183/798, 7-8=-183/798
WEBS 3-7=-825/199

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=121, 2=134.
- 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.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 85 lb down and 80 lb up at 6-7-2, and 85 lb down and 80 lb up at 6-7-2 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 6-9=-20
Concentrated Loads (lb)
Vert: 13=-93(F=-46, B=-46) 15=-19(F=-10, B=-10) 16=-80(F=-40, B=-40)



February 2,2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss D1	Truss Type Half Hip Girder	Qty 1	Ply 1	Summit/woodside ridge #21/mo I44616258
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:17 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-flwcd3bwLE7eLAhtCdPCc3TE5a4hO?ihyZbZpWnu

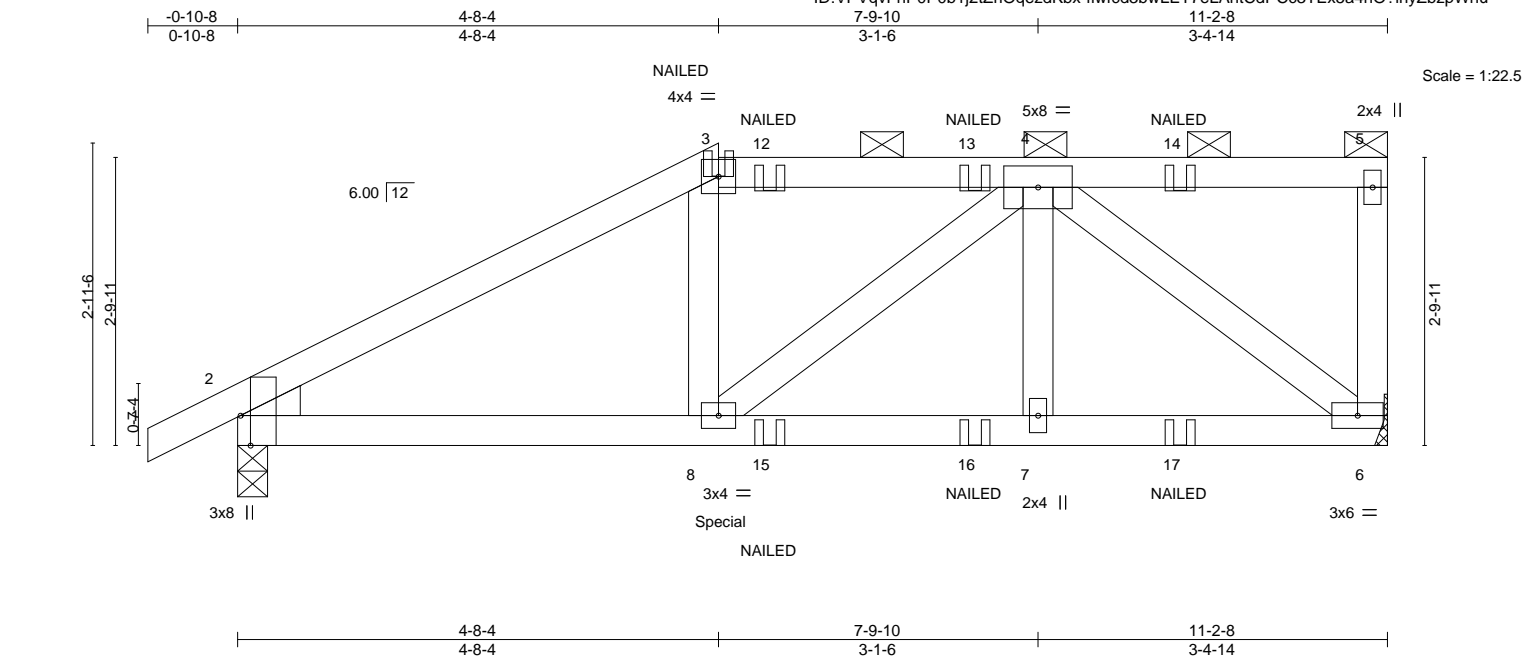


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]		LOADING (psf)		SPACING-- 2-0-0		CSI.		DEFL.		PLATES	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.03	in (loc)	7-8	MT20	GRIP
TCDL	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.06	7-8	>999		197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.02	6	n/a	Weight: 44 lb FT = 20%	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							

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 4-3-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-13 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=97(LC 7)
Max Uplift 2=-189(LC 8), 6=-192(LC 5)
Max Grav 2=1109(LC 1), 6=1066(LC 1)

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

TOP CHORD 2-3=-1661/297, 3-4=-1399/293
BOT CHORD 2-8=-286/1410, 7-8=-232/1142, 6-7=-232/1142
WEBS 3-8=-1/295, 4-8=-104/318, 4-6=-1411/264

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=189, 6=192.
- 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) 381 lb down and 106 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-5=-90, 6-9=-20



February 2, 2021

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/woodside ridge #21/mo	I44616258
2629082	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 Feb 1 11:23:17 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-flwfd3bwLET7eLAhtCdPCc3TEx5a4hO?ihyZbzbWnu

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=-87(B) 8=-381(B) 12=-87(B) 13=-87(B) 14=-87(B) 15=-49(B) 16=-49(B) 17=-49(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616259
2629082	D2	Half Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:18 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-7xU1pz4DhfMKkOWMEbjsyQ9DoeL2JYbXDMQV62zpWnt

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0-10-8 6-8-4 4-6-4

Scale = 1:23.2

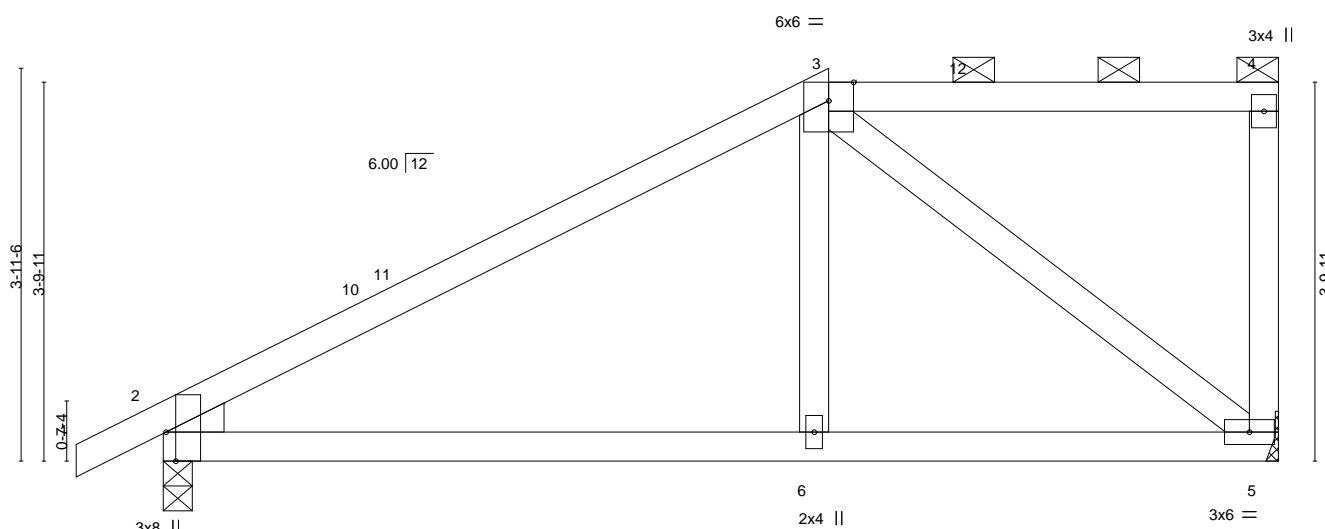


Plate Offsets (X,Y)--	[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51	Vert(LL)	0.05	6-9	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.11	6-9	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.37	Horz(CT)	0.02	2	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 42 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.): 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 5=Mechanical
Max Horz 2=135(LC 11)
Max Uplift 2=83(LC 12), 5=82(LC 9)
Max Grav 2=690(LC 1), 5=605(LC 1)

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

TOP CHORD 2-3=-717/147
BOT CHORD 2-6=-217/542, 5-6=-218/535
WEBS 3-6=0/263, 3-5=-668/232

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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 100 lb uplift at joint(s) 2, 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.



February 2, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616260
2629082	D3	Half Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:18 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-7xU1pz4DhfMKkowMEbjsyQ9GieLsJaPXDMQV62zpWnt

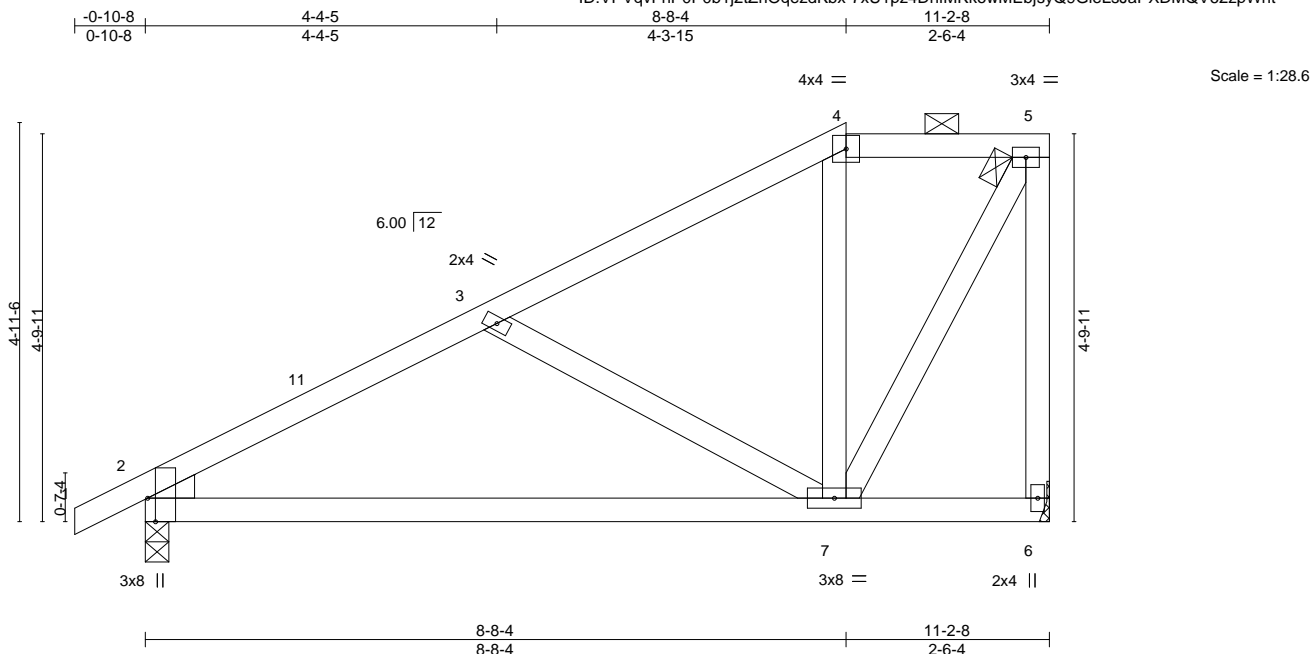


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.09 7-10 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.18 7-10 >748 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01 2 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				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=172(LC 11)
Max Uplift 6=-75(LC 9), 2=-86(LC 12)
Max Grav 6=605(LC 1), 2=690(LC 1)

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

TOP CHORD 2-3=-810/168, 3-4=-421/106, 4-5=-300/122, 5-6=-613/194
BOT CHORD 2-7=-313/689
WEBS 3-7=-454/194, 5-7=-204/607

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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 100 lb uplift at joint(s) 6, 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.



February 2, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616261
2629082	D4	Half Hip	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:19 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-b72Q1J5rSzUBMyVYolE5UdhPU2jO2yngS0A3eUzpWns

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

10x10 ||

Scale = 1:33.2

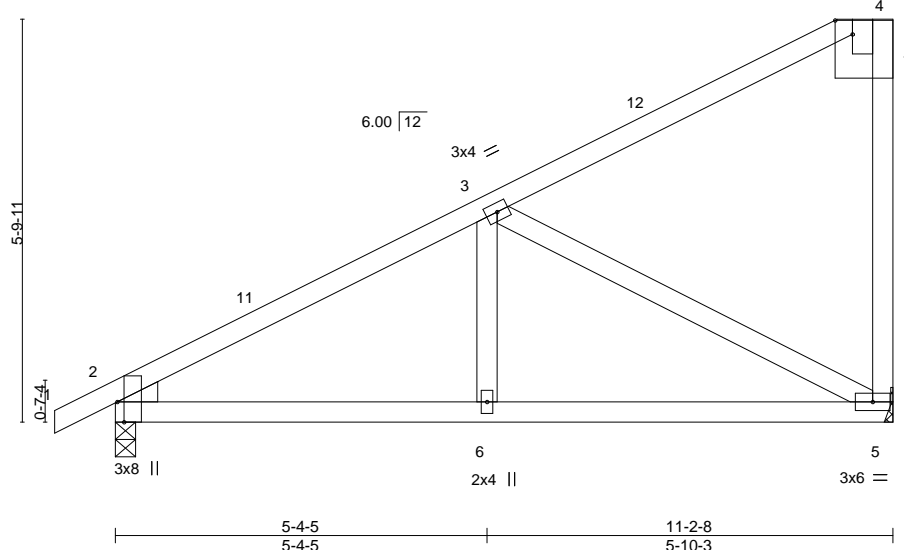


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [4:Edge,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.06	5-6	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						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, 5=Mechanical
Max Horz 2=216(LC 11)
Max Uplift 2=-80(LC 12), 5=-114(LC 12)
Max Grav 2=690(LC 1), 5=578(LC 1)

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

TOP CHORD 2-3=-817/134
BOT CHORD 2-6=-245/659, 5-6=-245/659
WEBS 3-5=-707/197

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-9-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 5=114.
- 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.
- 6) 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.



February 2, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

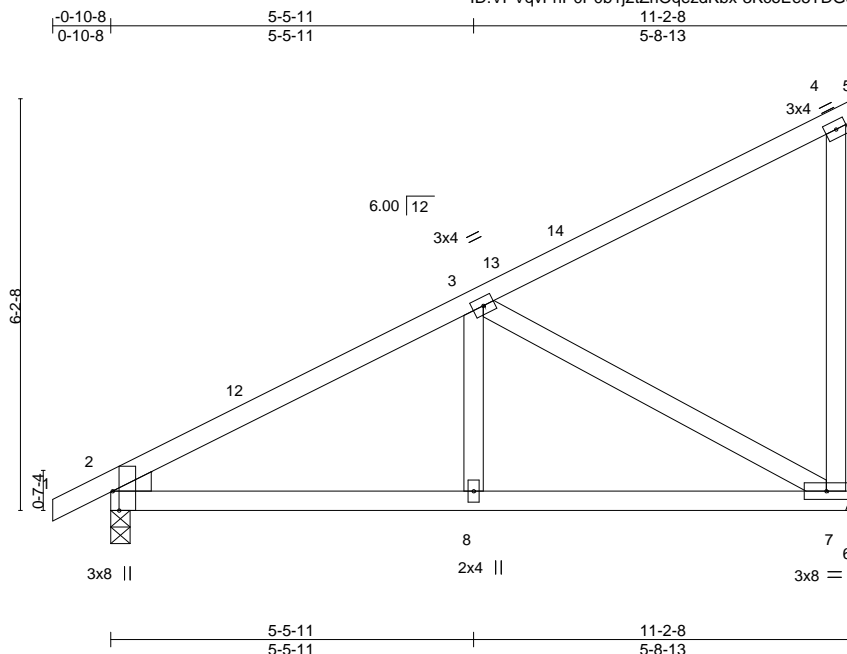
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616262
2629082	D5	Jack-Closed	7	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:20 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-3KcoEe5TDGc2_64kM?IK1rEaAS2nnPXqhgvcAwzpWnr



Scale = 1:34.7

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.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.39
TCDL 20.0	Lumber DOL	1.15	BC 0.27
BCLL 0.0	Rep Stress Incr	YES	WB 0.47
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.02 7-8 >999 240
			Vert(CT) -0.04 7-8 >999 180
			Horz(CT) 0.01 7 n/a n/a
			PLATES MT20
			GRIP 197/144
			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=222(LC 11)
Max Uplift 2=-69(LC 12), 7=-70(LC 12)
Max Grav 2=683(LC 1), 7=615(LC 1)

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

TOP CHORD 2-3=-795/133
BOT CHORD 2-8=-249/637, 7-8=-249/637
WEBS 3-7=-702/207

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- 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.
- 6) 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.



February 2, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616263
2629082	E1	Roof Special	2	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:20 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-3KcoEe5TDGc2_64kM?IK1rEd?S1anTEqhgvcAwzpWnr



Scale: 1/2"=1'

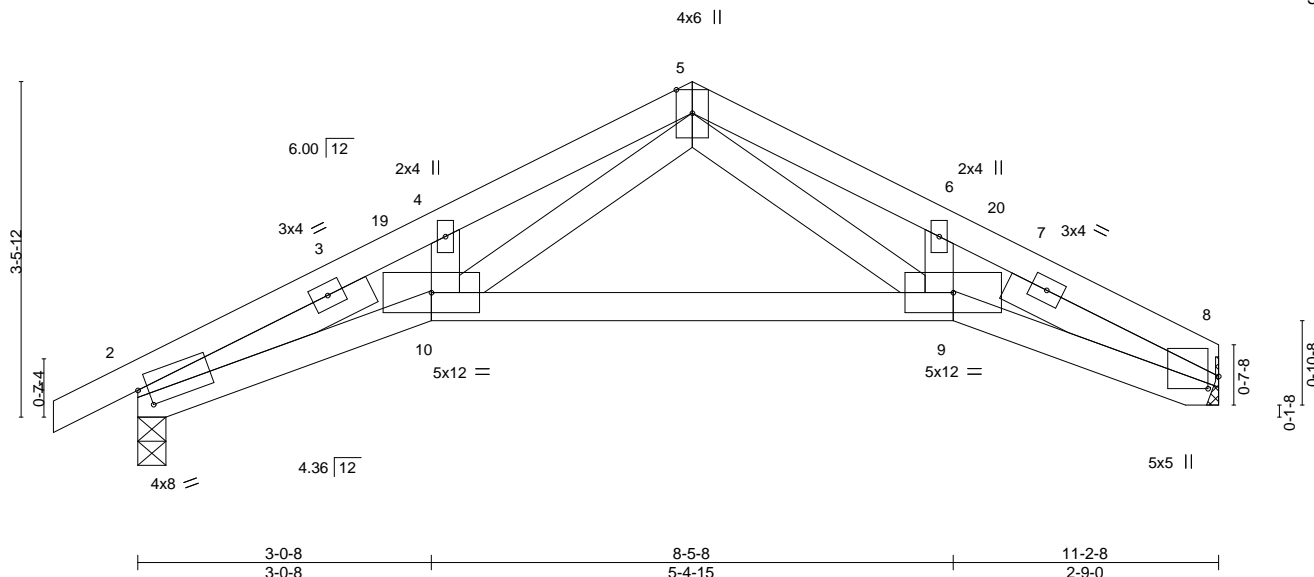


Plate Offsets (X,Y)--		[2:0-1-4,0-2-5], [8:0-1-9,0-1-5]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.06	9-10	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.15	9-10	>886	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.08	8	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							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=62(LC 12)
Max Uplift 8=60(LC 13), 2=80(LC 12)
Max Grav 8=613(LC 1), 2=698(LC 1)

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

TOP CHORD 2-4=-1785/482, 4-5=-1741/552, 5-6=-1645/498, 6-8=-1727/441
BOT CHORD 2-10=-410/1656, 9-10=-165/801, 8-9=-348/1566
WEBS 5-10=-306/959, 5-9=-262/849

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 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.



February 2,2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616264
2629082	E2	Roof Special	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:21 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-XW9AS_66_akvcGfxwjHZZ2moasM9WwLzvKf9iNzpWnq

Job Reference (optional)



Scale = 1:22.9

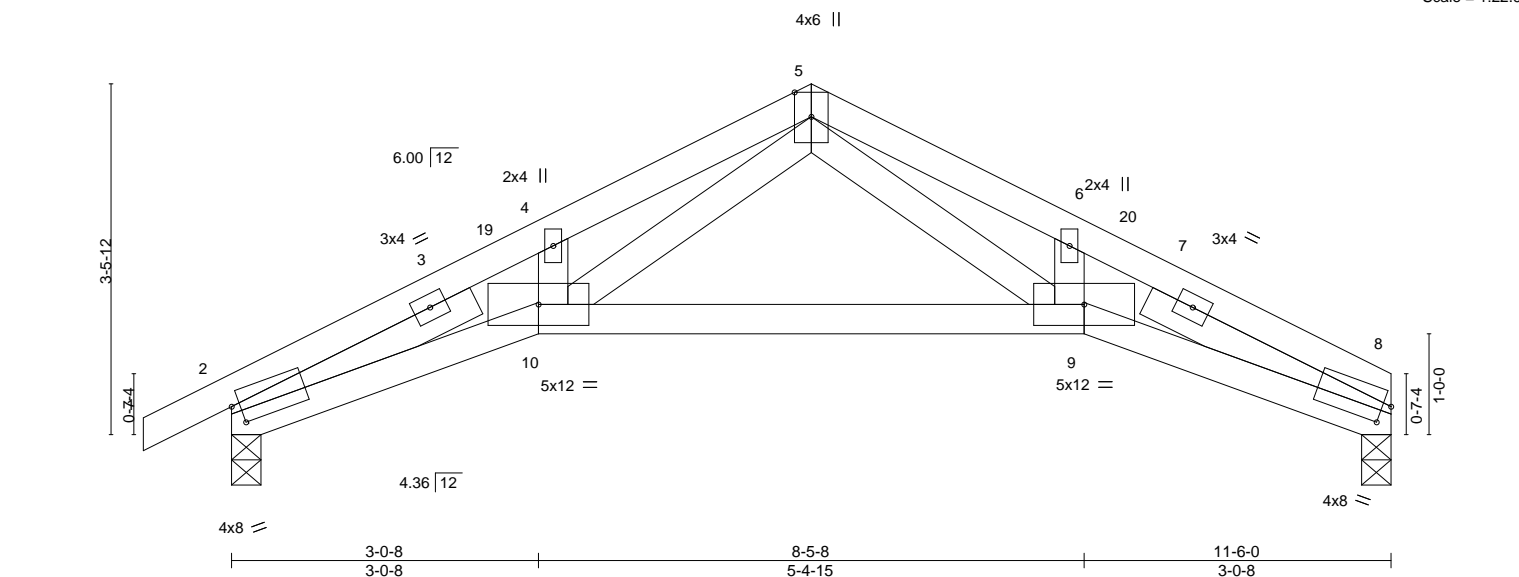


Plate Offsets (X,Y)--		[2:0-1-0,0-2-5], [8:0-1-0,0-2-5]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.06	9-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.17	9-10	>820	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					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=59(LC 16)
 Max Uplift 8=63(LC 13), 2=81(LC 12)
 Max Grav 8=630(LC 1), 2=714(LC 1)

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

TOP CHORD 2-4=-1848/481, 4-5=-1798/550, 5-6=-1822/528, 6-8=-1876/473
 BOT CHORD 2-10=-401/1712, 9-10=-163/844, 8-9=-376/1741
 WEBS 5-9=-291/998, 5-10=-298/970

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) 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.



February 2,2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616265
2629082	E3	Hip Girder	1	1		

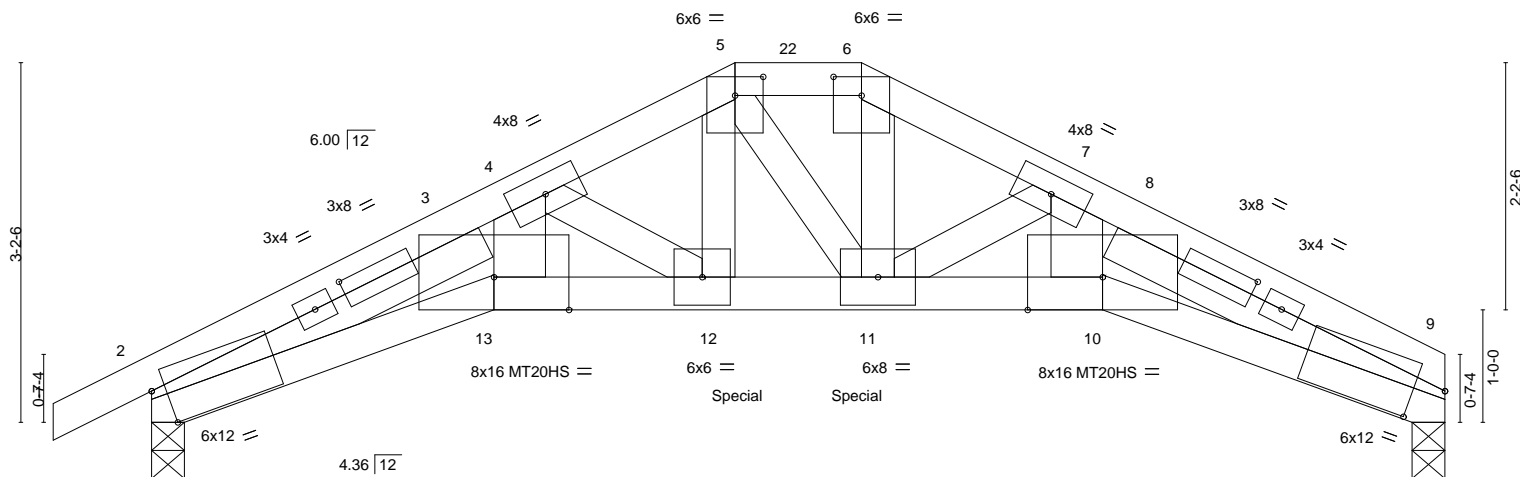
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:23 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-TuHwtg8MWB_drZpJ18J1fTs0BfwK_oYGNs8GnFzpWno

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

Scale = 1:20.5



	3-0-8	5-2-4	6-3-12	8-5-8	11-6-0
	3-0-8	2-1-12	1-1-8	2-1-12	3-0-8

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [2:1-11-1,0-1-8], [5:0-3-0,0-2-0], [6:0-3-0,0-2-0], [9:1-11-1,0-1-8], [9:0-3-4,0-4-1]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.12	12	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.26	12	>539	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	NO	WB 0.33	Horz(CT)	0.20	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 49 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF 1650F 1.5E
 WEBS 2x4 SPF No.2 *Except*
 4-13,7-10: 2x6 SPF No.2
 SLIDER Left 2x4 SPF No.2 3-3-6, Right 2x4 SPF No.2 3-3-6

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-1-12 oc purlins, except
 2-0-0 oc purlins (3-3-5 max.): 5-6.
 BOT CHORD Rigid ceiling directly applied or 7-1-11 oc bracing.

REACTIONS.

(size) 9=0-3-8, 2=0-3-8
 Max Horz 2=55(LC 33)
 Max Uplift 9=289(LC 9), 2=306(LC 8)
 Max Grav 9=1408(LC 1), 2=1491(LC 1)

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

TOP CHORD 2-4=-5034/1133, 4-5=-3469/795, 5-6=-3025/693, 6-7=-3499/788, 7-9=-5071/1083
 BOT CHORD 2-13=-1026/4601, 12-13=-898/4016, 11-12=-650/2994, 10-11=-818/4037, 9-10=-937/4638
 WEBS 4-13=-312/1470, 4-12=-1041/251, 5-12=-328/1318, 6-11=-320/1335, 7-11=-1029/227,
 7-10=-287/1492

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 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) 9, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=289, 2=306.
- 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) 768 lb down and 250 lb up at 5-2-4, and 787 lb down and 254 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



February 2,2021

Continued on page 2

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

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616265
2629082	E3	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 Feb 1 11:23:23 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-TuHwtg8MWB_drZpJ18J1fTs0BfwK_oYGNe8GnFzpWno

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-90, 5-6=-90, 6-9=-90, 13-18=-20, 10-13=-20, 10-14=-20
Concentrated Loads (lb)
Vert: 12=-768(F) 11=-787(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

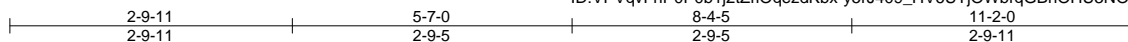
Job 2629082	Truss F1	Truss Type Common Girder	Qty 1	Ply 2	Summit/woodside ridge #21/mo 144616266
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:24 2021 Page 1

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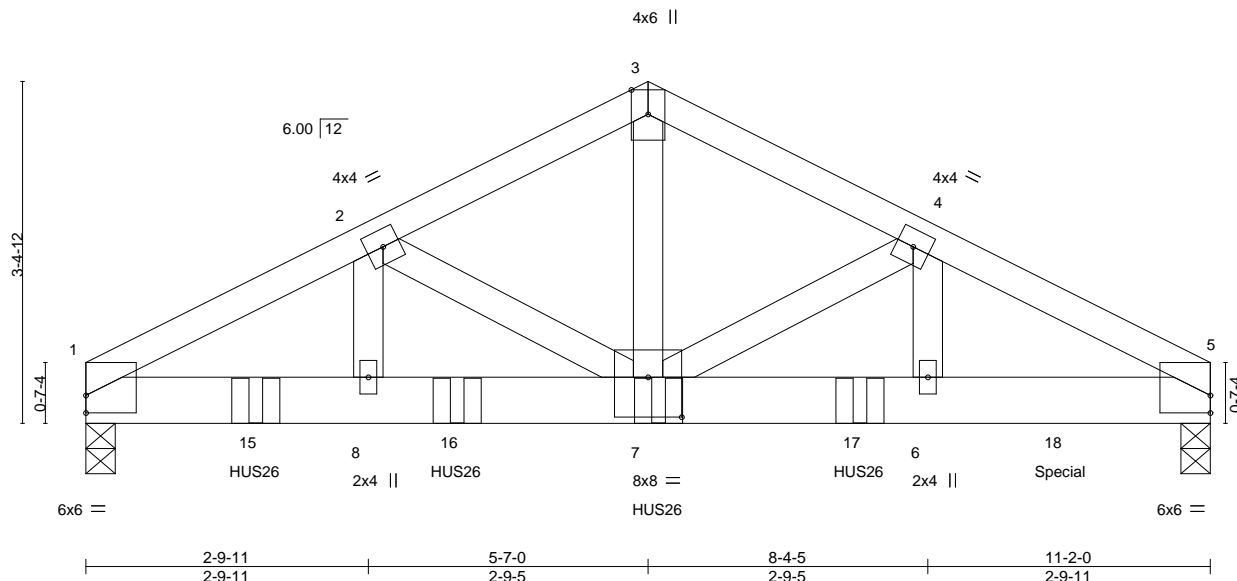


Plate Offsets (X,Y)-- [1:0-0-0,0-2-1], [5:Edge,0-2-1], [7:0-4-0,0-4-12]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.37	Vert(LL)	-0.05	7-8 >999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.11	7-8 >999	GRIP 197/144
BCLL 0.0	Rep Stress Incr	NO	WB 0.59	Horz(CT)	0.02	5 n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS				
				Weight: 94 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 4-3-10 oc purlins.
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=44(LC 30)
Max Uplift 1=538(LC 8), 5=541(LC 9)
Max Grav 1=4761(LC 1), 5=4874(LC 1)

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

TOP CHORD 1-2=-7569/858, 2-3=-5842/679, 3-4=-5843/679, 4-5=-7523/850
BOT CHORD 1-8=-774/6684, 7-8=-774/6684, 6-7=-723/6648, 5-6=-723/6648
WEBS 3-7=-540/4827, 4-7=-1687/240, 4-6=-172/1501, 2-7=-1729/247, 2-8=-180/1553

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: 2x6 - 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=538, 5=541.
- 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.
- 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 1-8-4 from the left end to 7-8-4 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) 1670 lb down and 184 lb up at 9-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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



February 2,2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	F1	Common Girder	1	2	I44616266
					Job Reference (optional)

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:24 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-y5rJ409_HV6UTjOWbrqGBhOHU3NOjBeQcltqJhzpWnn

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-3=-90, 3-5=-90, 9-12=-20
Concentrated Loads (lb)
Vert: 7=-1685(F) 15=-1685(F) 16=-1685(F) 17=-1681(F) 18=-1670(F)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616267
2629082	F2	Roof Special	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:25 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-QHPhHM9c2pEL4tyi9ZLVkuxSFTfbSm2ZqydNr8zpWnm

Job Reference (optional)

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

Scale = 1:24.3

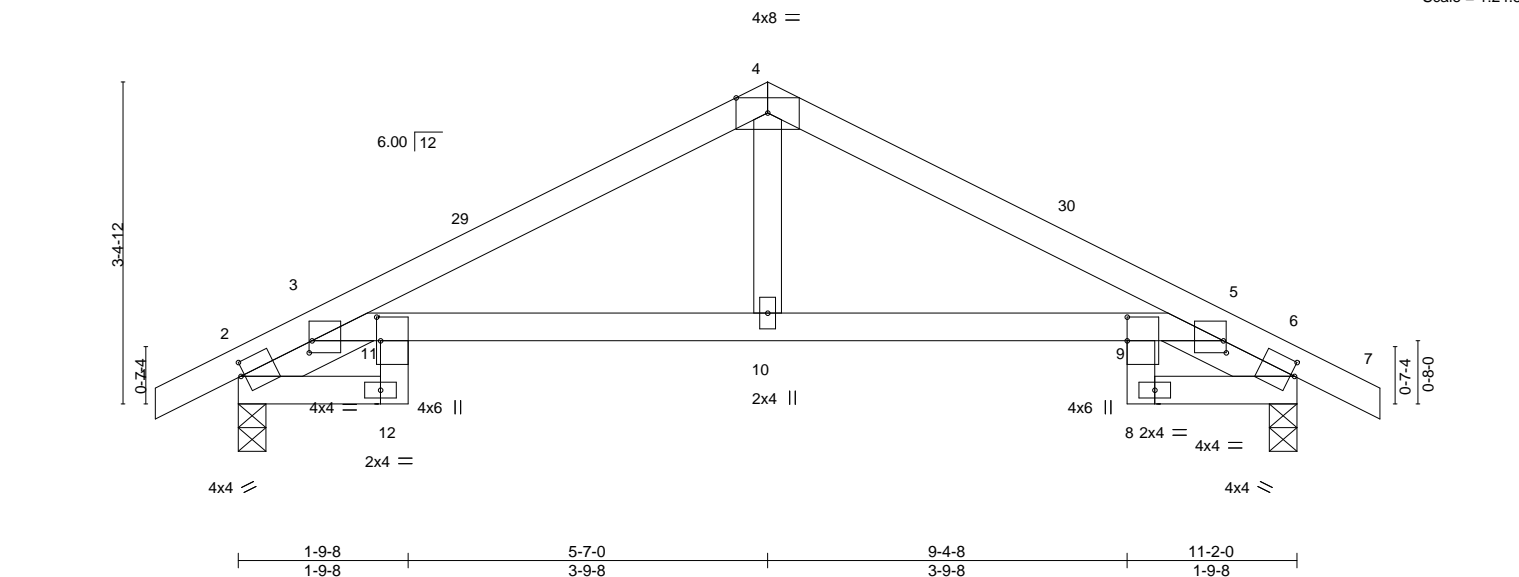


Plate Offsets (X,Y)-- [2:0-0-8,0-1-11], [3:0-0-6,0-1-8], [5:0-0-6,0-1-8], [6:0-0-8,0-1-11], [9:0-3-0,0-0-0], [11:0-3-0,0-0-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.05 10-11 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.12 10-11 >999 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.07 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 38 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 1-5-1, Right 2x4 SPF No.2 1-5-1

BRACING-

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied. Except:
 10-0-0 oc bracing: 9-10

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
 Max Horz 2=51(LC 12)
 Max Uplift 2=80(LC 12), 6=80(LC 13)
 Max Grav 2=690(LC 1), 6=690(LC 1)

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

TOP CHORD 3-14=-650/167, 3-4=-916/260, 4-5=-916/260, 5-6=-650/166
 BOT CHORD 2-12=-95/331, 3-11=-476/47, 10-11=-117/807, 9-10=-117/807, 5-9=-476/48,
 6-8=-94/331
 WEBS 4-10=-29/310

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-2, Interior(1) 2-0-2 to 5-7-0, Exterior(2R) 5-7-0 to 8-7-0, Interior(1) 8-7-0 to 12-0-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
- 6) 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.



February 2,2021

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

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ANSI/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/woodside ridge #21/mo	144616268
2629082	F3	Hip Girder	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:26 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-uTz3VIAEp6MCi1XuiGskG6UY2t1IBCNI3cMwOazpWnl

Job Reference (optional)

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

Scale = 1:21.7

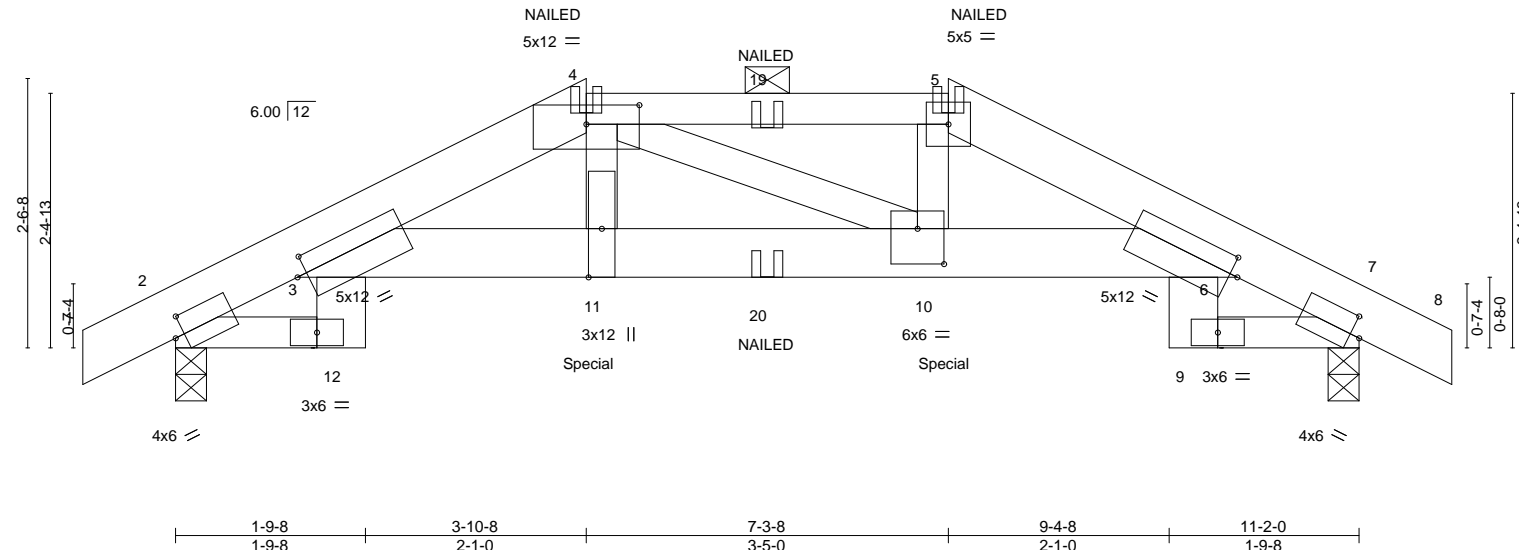


Plate Offsets (X,Y)-- [2:0-1-2,0-2-3], [3:0-1-2,0-2-1], [4:0-6-0,0-2-3], [6:0-0-14,0-2-1], [7:0-1-2,0-2-3], [10:0-3-0,0-4-0]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.07	10	>999	240	MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.15	10	>894	180			
BCLL	0.0	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.14	7	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 51 lb	FT = 20%	

LUMBER-

TOP CHORD 2x6 SPF 2100F 1.8E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-12,6-9: 2x6 SPF No.2, 3-6: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-1 oc purlins, except 2-0-0 oc purlins (3-7-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=37(LC 8)
Max Uplift 2=-209(LC 8), 7=-209(LC 9)
Max Grav 2=1085(LC 1), 7=1085(LC 1)

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

TOP CHORD 3-14=-572/141, 3-4=-2476/514, 4-5=-2312/477, 5-6=-2426/481, 6-7=-572/136
BOT CHORD 3-11=-452/2289, 10-11=-465/2359, 6-10=-410/2247
WEBS 4-11=-96/526, 5-10=-88/487

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=209, 7=209.
- 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) 310 lb down and 108 lb up at 3-10-8, and 310 lb down and 108 lb up at 7-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-90, 4-5=-90, 5-6=-90, 6-8=-90, 12-13=-20, 3-6=-20, 9-16=-20



February 2,2021

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.
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616268
2629082	F3	Hip Girder	1	1	Job Reference (optional)	

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

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ID:VPVqvFnP0P0b1j2tZrIQezdKbx-uTz3ViAEp6MCi1XuiGskG6UY2t1IBCNI3cMwOazpWnl

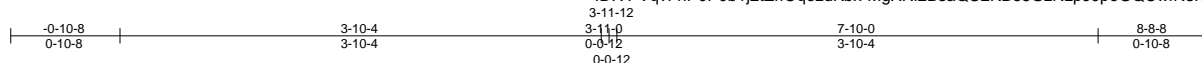
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 4=-35(B) 5=-35(B) 11=-310(B) 10=-310(B) 19=-35(B) 20=-56(B)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616269
2629082	G1	Hip Girder	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:27 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-MgXRi2BsaQU2KB65GzNzpJ0poGQCwfNslG6Uw0zpWnk



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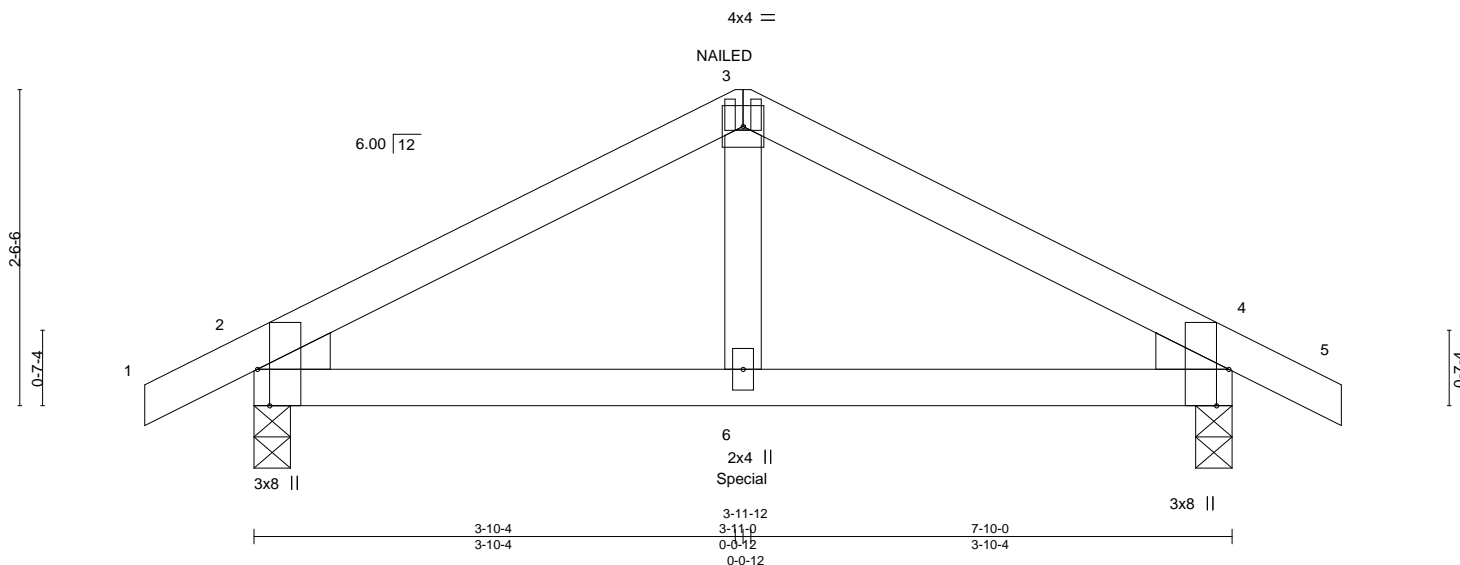


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.02	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							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 5-6-3 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=38(LC 29)
 Max Uplift 2=-150(LC 8), 4=-150(LC 9)
 Max Grav 2=811(LC 1), 4=811(LC 1)

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

TOP CHORD 2-3=-1067/225, 3-4=-1067/224
 BOT CHORD 2-6=-161/884, 4-6=-161/884
 WEBS 3-6=-111/594

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=150, 4=150.
- 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 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) 551 lb down and 185 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-90, 3-5=-90, 7-10=-20
 Concentrated Loads (lb)
 Vert: 6=-551(B) 3=-51(B)



February 2, 2021

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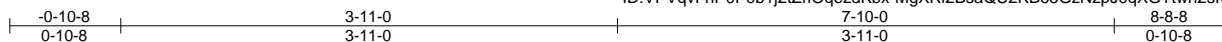
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616270
2629082	G2	Common	3	1		

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

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ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-MgXRi2BsaQU2KB65GzNzpJ0qXGTtwh2slG6Uw0zpWnk



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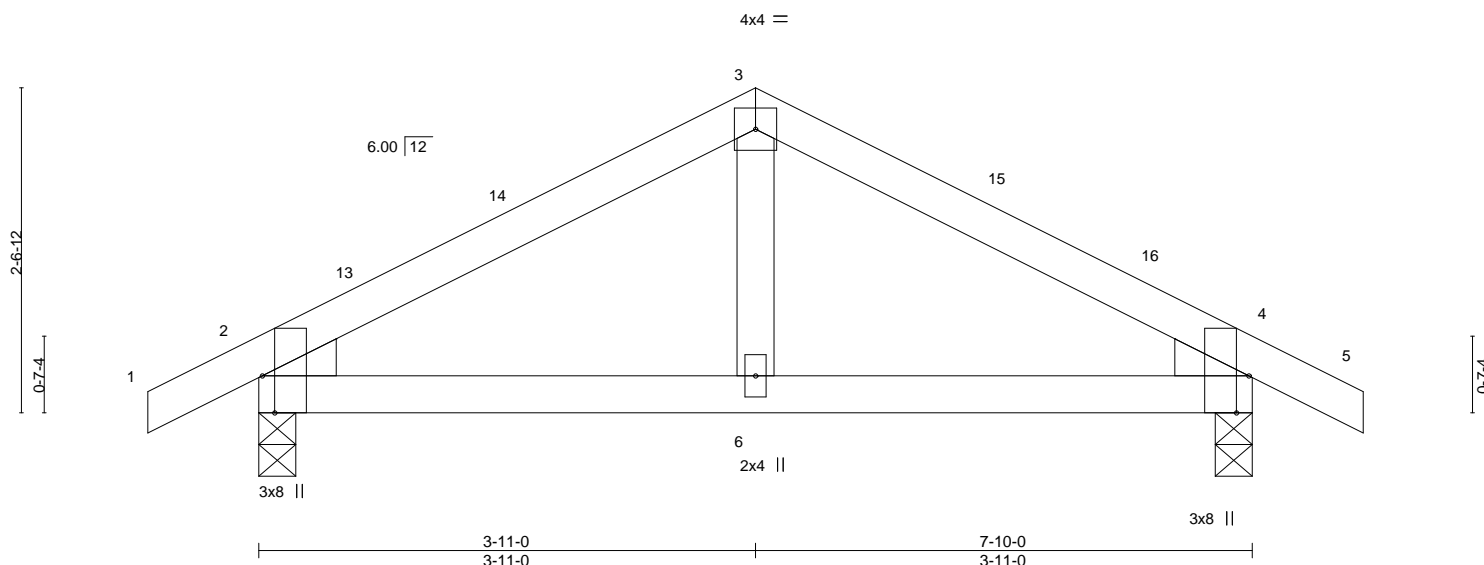


Plate Offsets (X,Y)--	[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.01 6-9	>999 240
TCDL 20.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.02 6-9	>999 180
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00 2	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS			
						PLATES MT20 GRIP 197/144
						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=38(LC 12)
 Max Uplift 2=61(LC 12), 4=61(LC 13)
 Max Grav 2=510(LC 1), 4=510(LC 1)

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

TOP CHORD 2-3=-504/193, 3-4=-504/193
 BOT CHORD 2-6=-68/383, 4-6=-68/383

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 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.
- 6) 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.



February 2,2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616271
2629082	J1	Jack-Closed	5	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:28 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-qs4pwOCVKcvxLhHqhVCMXZtTgkwf8u?Wwr1STzpWnj

Job Reference (optional)



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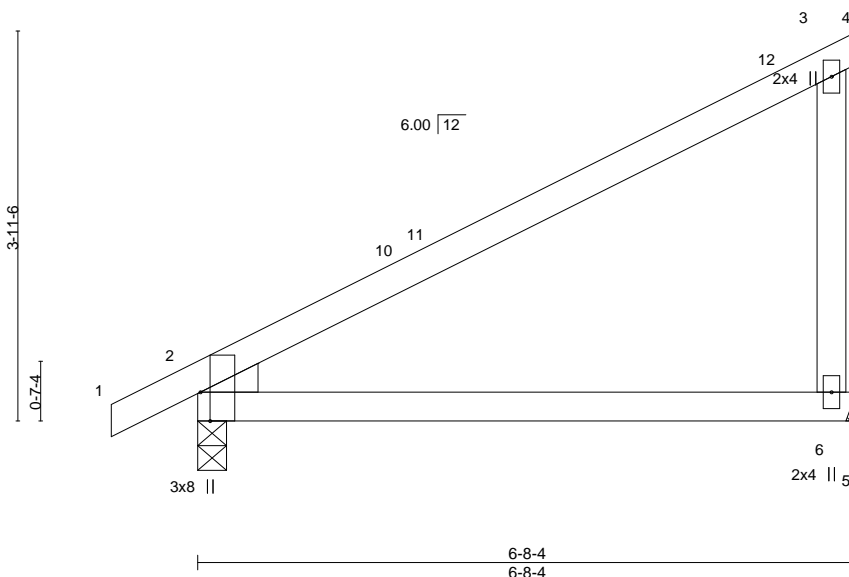


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.69
TCDL 20.0	Lumber DOL	1.15	BC 0.51
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.09 6-9 >819 240
			Vert(CT) -0.21 6-9 >365 180
			Horz(CT) 0.04 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 22 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) 6=Mechanical, 2=0-3-8
Max Horz 2=137(LC 11)
Max Uplift 6=69(LC 12), 2=-48(LC 12)
Max Grav 6=364(LC 1), 2=437(LC 1)

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

TOP CHORD 3-6=-265/202

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-8-4 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
- 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.
- 6) 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.



February 2, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

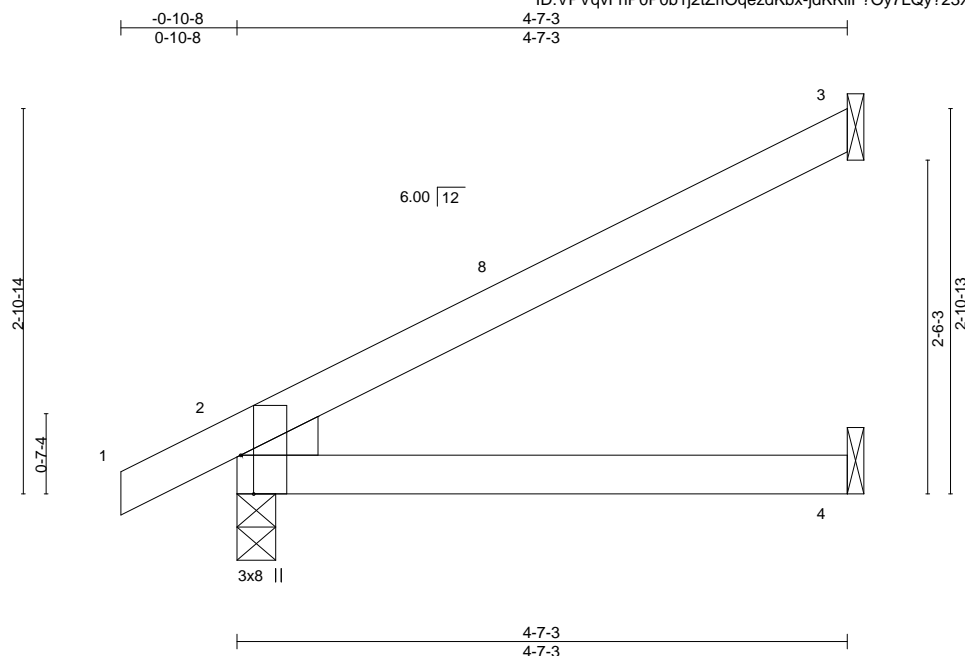
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616272
2629082	J2	Jack-Open	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:32 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-jdKKIIF?Oy7LQy?23Xz8WNke9H9sbytbRXpFbEzpWnf



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.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33
TCDL 20.0	Lumber DOL	1.15	BC 0.25
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.03 4-7 >999 240
			Vert(CT) -0.05 4-7 >997 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			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=97(LC 12)

Max Uplift 3=63(LC 12), 2=29(LC 12)

Max Grav 3=174(LC 1), 2=336(LC 1), 4=89(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 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.
- 6) 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.



February 2, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss J3	Truss Type Jack-Open	Qty 7	Ply 1	Summit/woodside ridge #21/mo I44616273
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:35 2021 Page 1
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-7C0TOnHuhtVwHPjdfXr8?MDDVDQoJd17V2vCZzpWnc

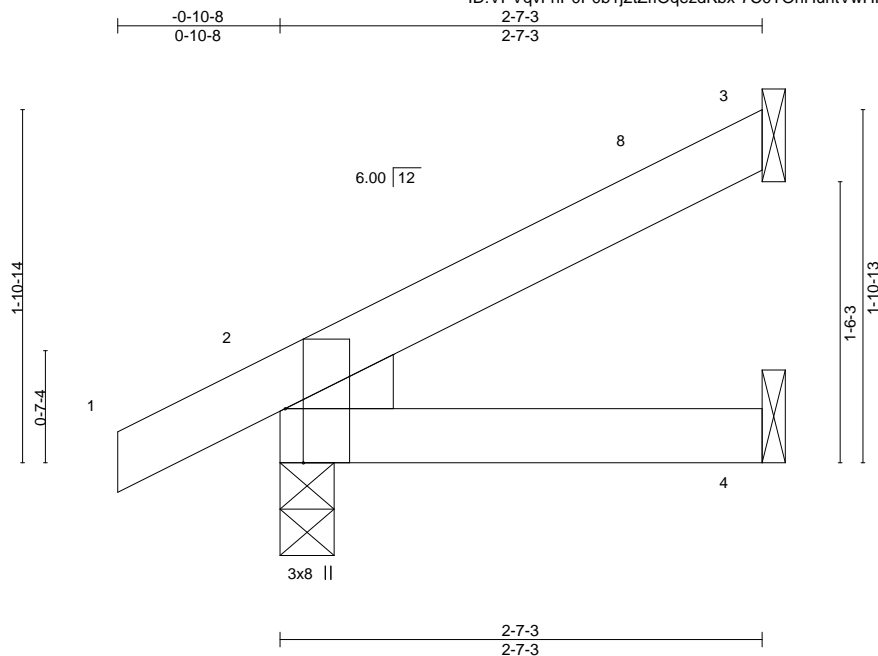


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08
TCDL 20.0	Lumber DOL	1.15	BC 0.07
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 4-7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			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=60(LC 12)
Max Uplift 3=33(LC 12), 2=23(LC 12), 4=2(LC 12)
Max Grav 3=88(LC 1), 2=232(LC 1), 4=49(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 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.



February 2, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

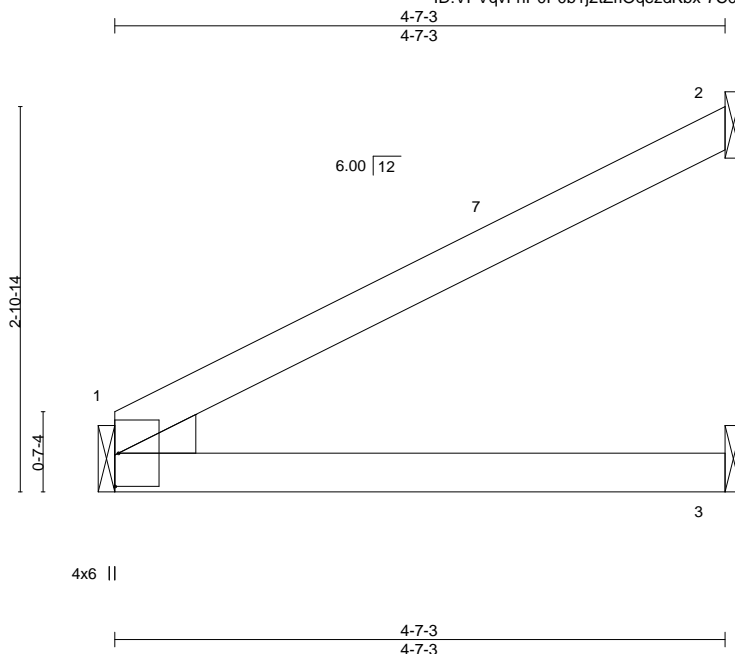
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616274
2629082	J4	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:35 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-7C0TOnHuhtVwHPjdxr8?M9AVA5oJd17V2vCZzpWnc



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-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34
TCDL 20.0	Lumber DOL	1.15	BC 0.28
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.03 3-6 >999 240
			Vert(CT) -0.06 3-6 >915 180
			Horz(CT) 0.01 1 n/a n/a
			PLATES GRIP
			MT20 197/144
			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=83(LC 12)

Max Uplift 2=63(LC 12), 1=11(LC 12)

Max Grav 2=177(LC 1), 3=91(LC 3), 1=250(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 1.
- 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.
- 6) 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.



February 2,2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

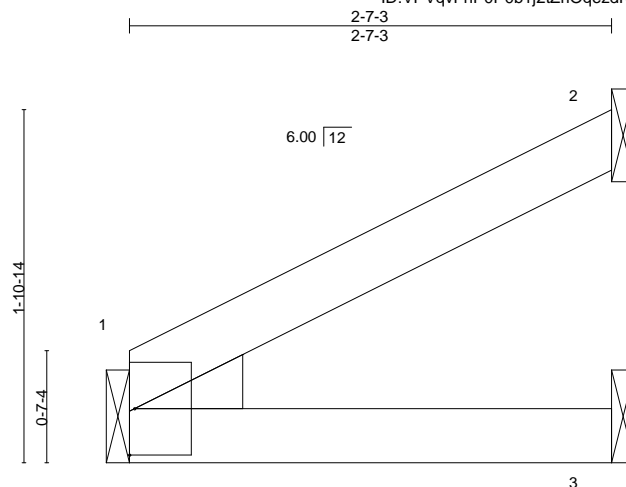
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	144616275
2629082	J5	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:36 2021 Page 1

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Scale = 1:12.4

4x6 ||

										<div><div></div><div>2-7-3</div><div></div></div>			
Plate Offsets (X,Y)--										[1:0-0-1,0-0-3], [1:0-0-3,0-5-0]			
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.09	Vert(LL)	-0.00	6	>999	240	MT20	197/144	
TCDL	20.0	Lumber DOL 1.15		BC	0.10	Vert(CT)	-0.01	3-6	>999	180			
BCLL	0.0	Rep Stress Incr YES		WB	0.00	Horz(CT)	0.00	1	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP						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=46(LC 12)

Max Uplift 2=-34(LC 12), 3=-3(LC 12), 1=-4(LC 12)

Max Grav 2=94(LC 1), 3=52(LC 3), 1=140(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 3, 1.
- 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.



February 2, 2021

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

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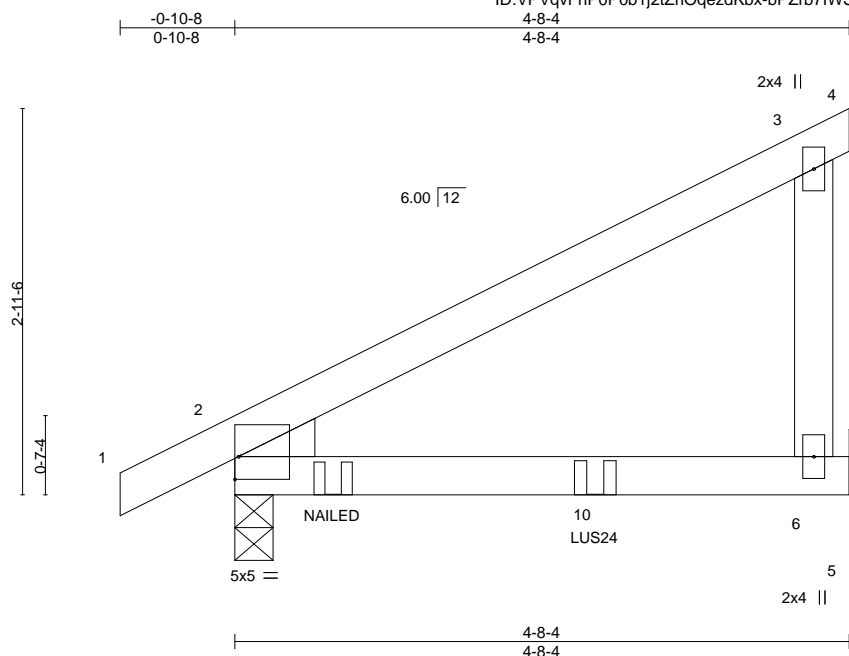


Plate Offsets (X,Y)-- [2:0-0.3,0-0-1], [2:0-5-0,0-0-3], [2:Edge,0-2-1]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05	6-9	>969	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.12	6-9	>443	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 16 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 4-8-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=100(LC 24)
Max Uplift 6=-66(LC 8), 2=-55(LC 8)
Max Grav 6=412(LC 1), 2=521(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
- 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.
- 6) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 2-9-0 from the left end to connect truss(es) to back face of bottom chord.
- 7) Fill all nail holes where hanger is in contact with lumber.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=90, 3-4=40, 5-7=-20
Concentrated Loads (lb)
Vert: 9=122(B) 10=-230(B)



February 2, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss J7	Truss Type Jack-Open	Qty 8	Ply 1	Summit/woodside ridge #21/mo I44616277
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

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ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-3b7DpSJ8DVleWjt0s4ZJDQRVglsrGD6KbpX0GRzpWna



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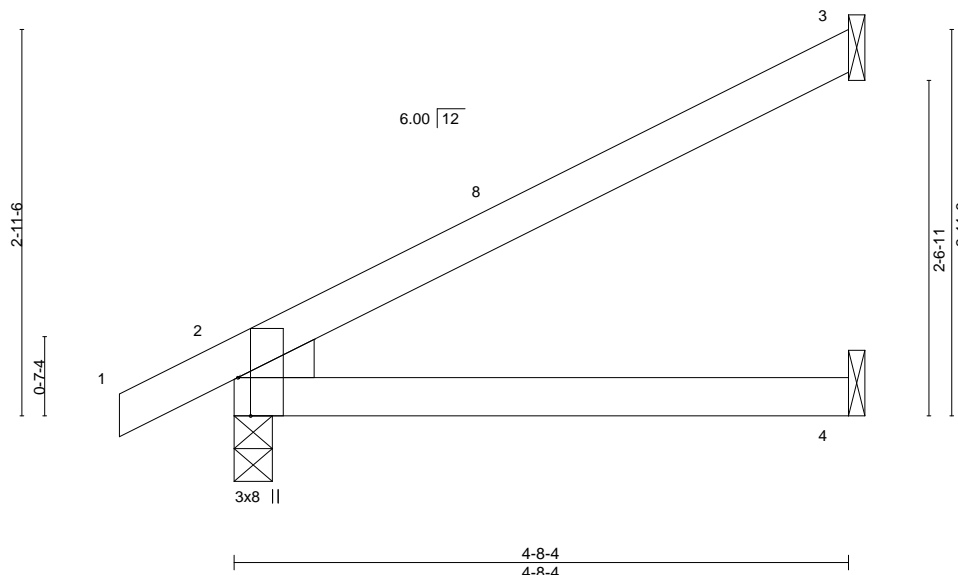


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34
TCDL 20.0	Lumber DOL	1.15	BC 0.26
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
DEFL.	in (loc)	l/defl	L/d
Vert(LL) 0.03	4-7	>999	240
Vert(CT) -0.06	4-7	>942	180
Horz(CT) 0.01	2	n/a	n/a
PLATES	GRIP		
MT20	197/144		
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=98(LC 12)
Max Uplift 3=64(LC 12), 2=29(LC 12)
Max Grav 3=177(LC 1), 2=341(LC 1), 4=91(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 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.
- 6) 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.



February 2, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616278
2629082	J8	Jack-Open	4	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:38 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-Xnhb0oJm_otV8tSCpn4Yle_eDiBo?fMTqTGZptzpWnZ

-0-10-8	2-3-8	4-8-4
0-10-8	2-3-8	2-4-12

Scale = 1:17.6

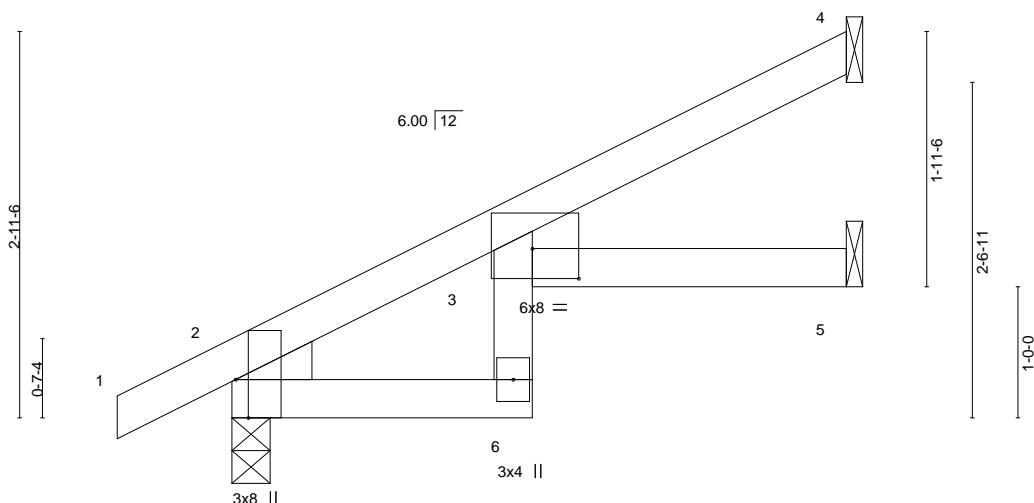


Plate Offsets (X,Y)--	[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-4-4,0-2-12]
-----------------------	--

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	0.05	6	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.09	6	>609	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.07	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						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.

BOT CHORD

Rigid ceiling directly applied.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
 Max Horz 2=98(LC 12)
 Max Uplift 4=51(LC 12), 2=29(LC 12), 5=11(LC 12)
 Max Grav 4=157(LC 1), 2=342(LC 1), 5=93(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- 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.
- 6) 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.



February 2, 2021

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

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

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2629082	Truss J9	Truss Type Jack-Open	Qty 2	Ply 1	Summit/woodside ridge #21/mo 144616279
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:38 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-Xnhb0oJm_otV8tSCPn4Yle_kDiF3?fMTqTGZtpzWnZ



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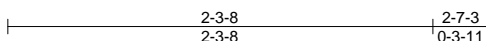
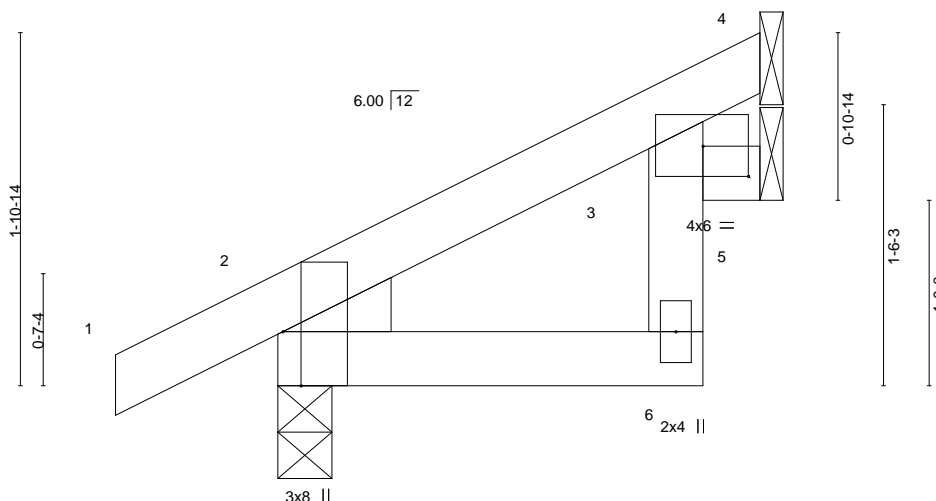


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-2-15,0-1-15]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.10		Vert(LL)	-0.00	9	>999
TCDL 20.0		Lumber DOL	1.15	BC 0.07		Vert(CT)	-0.01	6	>999
BCLL 0.0		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.01	5	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-MR					
								PLATES	GRIP
								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=60(LC 12)
Max Uplift 4=21(LC 12), 2=23(LC 12), 5=13(LC 12)
Max Grav 4=72(LC 1), 2=232(LC 1), 5=56(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- 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.



February 2, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

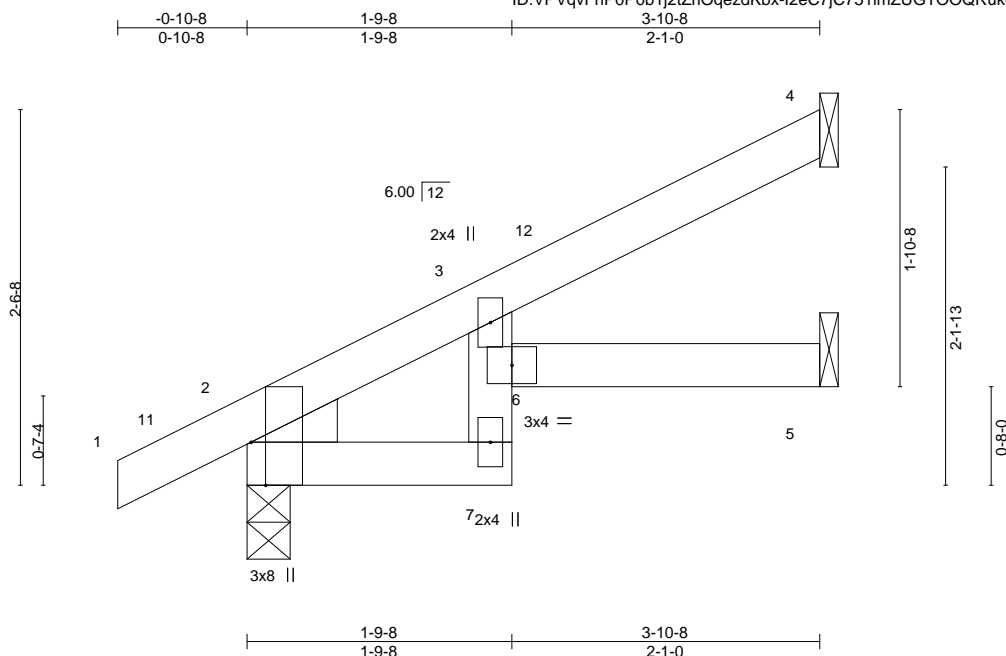
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J10	Jack-Open	3	1	I44616280
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:29 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-l2eC7jC751lmZUGTOOQRuk6AN48WO689labb_vzpWni



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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.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17
TCDL 20.0	Lumber DOL	1.15	BC 0.23
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MR
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.01 6 >999 240
			Vert(CT) -0.03 5-6 >999 180
			Horz(CT) 0.01 5 n/a n/a
			PLATES GRIP
			MT20 197/144
			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 or 3-10-8 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=84(LC 12)
 Max Uplift 4=42(LC 12), 2=27(LC 12), 5=10(LC 12)
 Max Grav 4=125(LC 1), 2=297(LC 1), 5=79(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-9-12 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- 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.



February 2, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2629082	Truss J11	Truss Type Jack-Open	Qty 4	Ply 1	Summit/woodside ridge #21/mo I44616281
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:29 2021 Page 1

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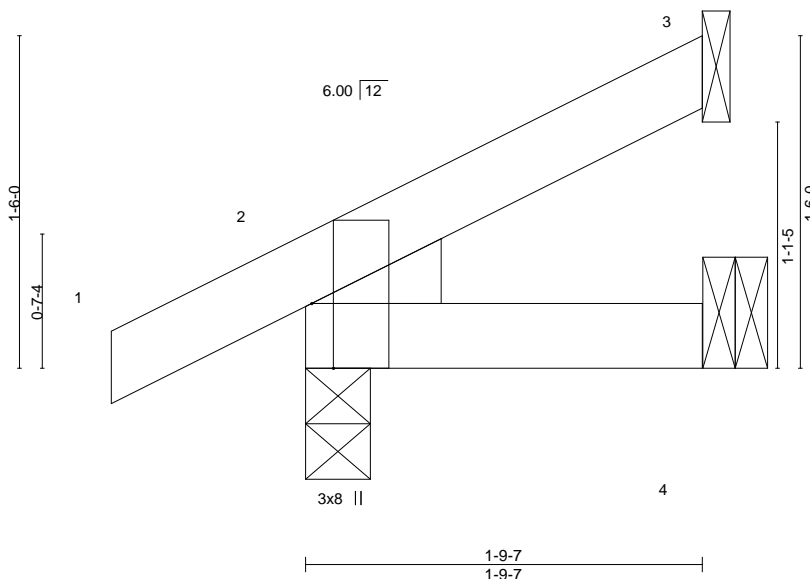


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			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 1-9-7 oc purlins.

BOT CHORD

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=46(LC 12)

Max Uplift 3=22(LC 12), 2=21(LC 12), 4=3(LC 12)

Max Grav 3=54(LC 1), 2=196(LC 1), 4=32(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 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.



February 2, 2021

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

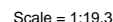
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

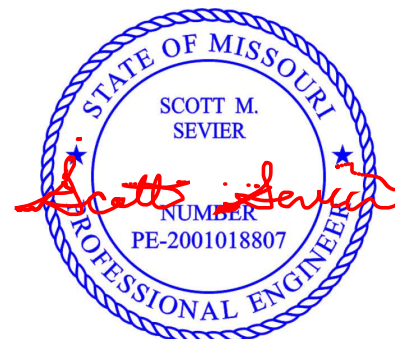
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 11 11:23:30 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOgezdkBx-mFCaL3DisLtdBerfx6xgRyeIWUKA72VI_EKX8LzpWnh



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied. Rigid ceiling directly applied.
BOT CHORD	2x6 SPF No.2 *Except*	BOT CHORD	
	5-6: 2x4 SPF 1650F 1.5E		
WEBS	2x4 SPF No.2		

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-2-4 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
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) 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.



February 2, 2021



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616283
2629082	J17	Jack-Open	3	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:31 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-ERmyYPENdf?UooQsVpSvz9BXBusMsVNRD14h3nzwWng

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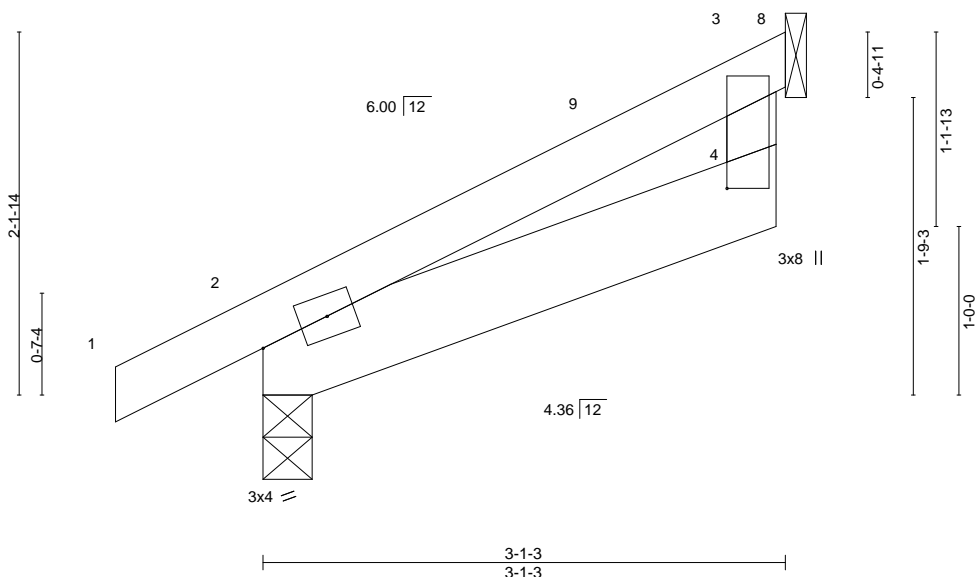


Plate Offsets (X,Y)-- [3:0-0-14,0-1-12], [4:0-11-6,2-9-0], [4:0-0-10,0-1-12]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	7	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	7	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							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=70(LC 12)
Max Uplift 2=-23(LC 12), 3=-47(LC 12)
Max Grav 2=254(LC 1), 3=150(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



February 2, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616284
2629082	J18	Jack-Open	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:31 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-ERmyYPENdf?UooQsVpSvz9BX7us4sVLRD14h3nzwWng

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

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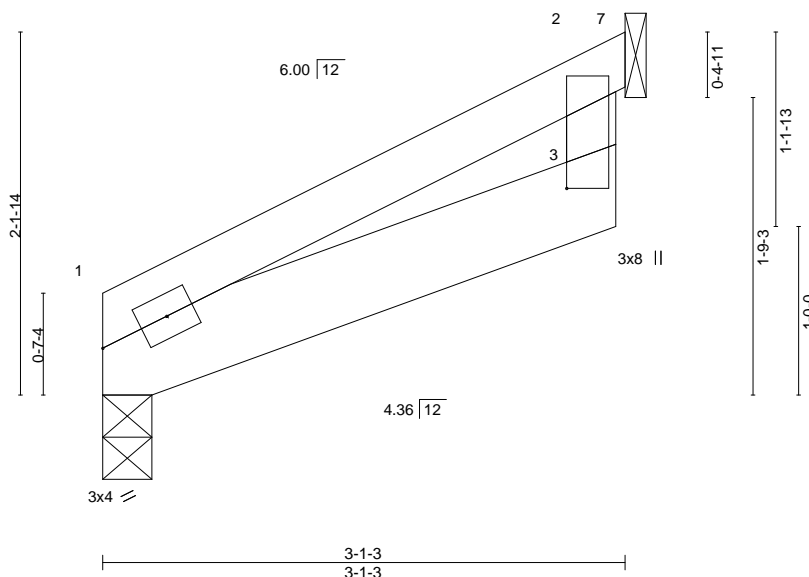


Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [3:0-11-6,2-9-0], [3:0-0-10,0-1-12]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	6	>999	240	MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.00	3-6	>999	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	1	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							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=56(LC 12)
Max Uplift 1=4(LC 12), 2=49(LC 12)
Max Grav 1=164(LC 1), 2=162(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



February 2, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss J19	Truss Type Jack-Open	Qty 1	Ply 1	Summit/woodside ridge #21/mo 144616285
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:32 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-jdKKlIF?Oy7LQy?23Xz8WNkgjHAzbytRXpFbEzpWnf



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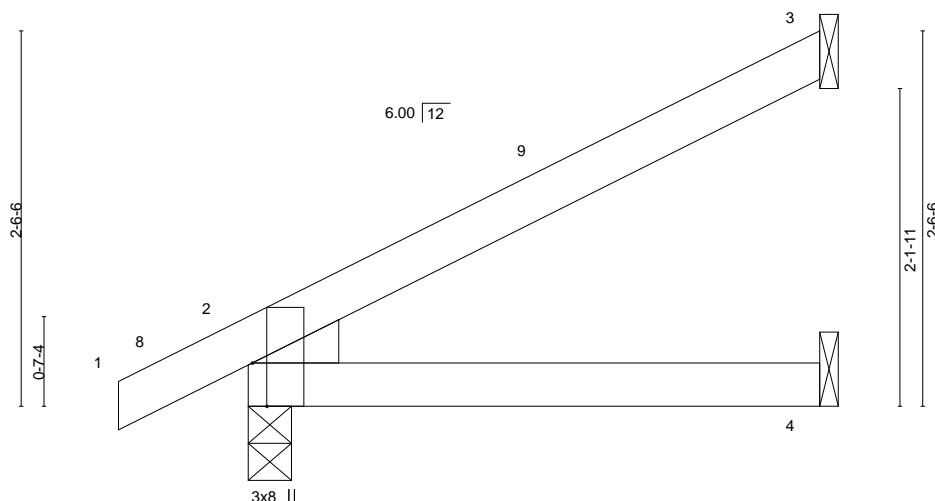


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	0.02	4-7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.03	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						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=83(LC 12)

Max Uplift 3=-51(LC 12), 2=-27(LC 12), 4=-1(LC 12)

Max Grav 3=141(LC 1), 2=296(LC 1), 4=75(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 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.



February 2, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616286
2629082	J20	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

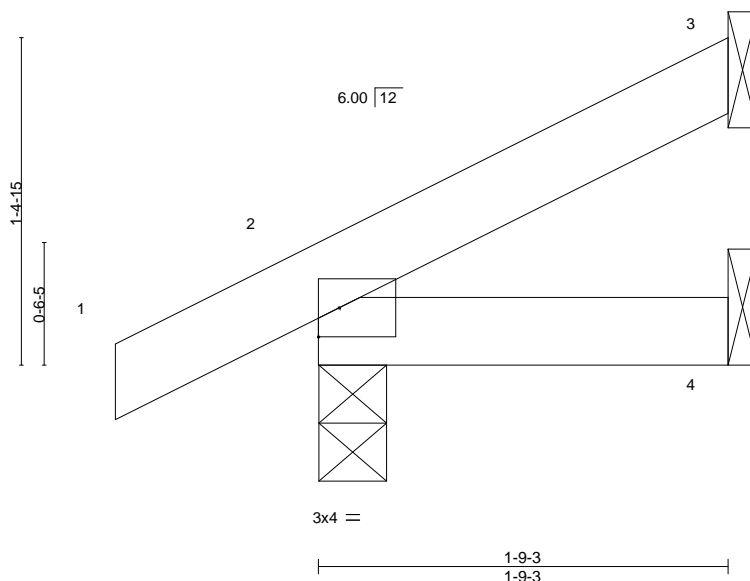
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:33 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-Bquiz5Gd9GFC26aEdEUN3aGtxhYkKP7kgBZo7gzwWne

-0-10-8
0-10-8

1-9-3
1-9-3

Scale = 1:9.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	7	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						
								Weight: 6 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 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=46(LC 12)
Max Uplift 3=24(LC 12), 2=23(LC 12)
Max Grav 3=59(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 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.



February 2, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss J21	Truss Type Jack-Open	Qty 2	Ply 1	Summit/woodside ridge #21/mo 144616287
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:33 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-Bquiz5Gd9GFC26aEdEUN3aGtxhYeKP7kgBZo7gzwWne

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0-10-8

1-9-3
1-9-3

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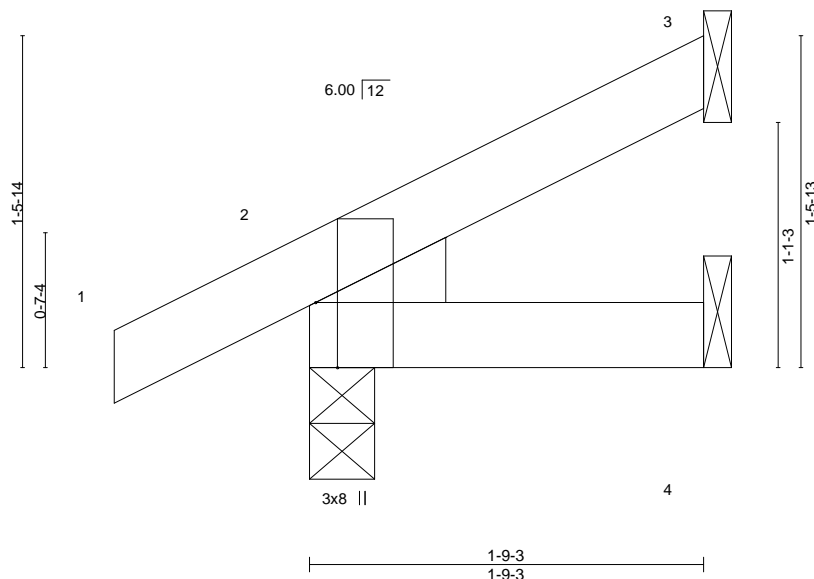


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			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=46(LC 12)

Max Uplift 3=-21(LC 12), 2=-21(LC 12), 4=-3(LC 12)

Max Grav 3=54(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 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.



February 2, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss J22	Truss Type Jack-Open	Qty 1	Ply 1	Summit/woodside ridge #21/mo 144616288
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:34 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-f0S5ARGFwaN3fG9RAy0cbop2h5uu3sNuvrILg6zpWnd

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

Scale = 1:10.3

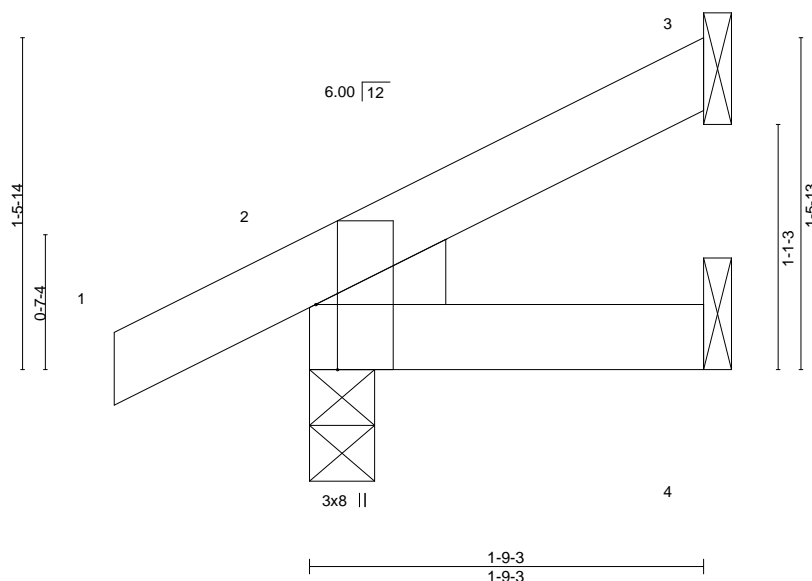


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) -0.00 4 n/a n/a
			PLATES GRIP
			MT20 197/144
			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=46(LC 12)
Max Uplift 2=52(LC 12)
Max Grav 3=54(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- 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.



February 2, 2021

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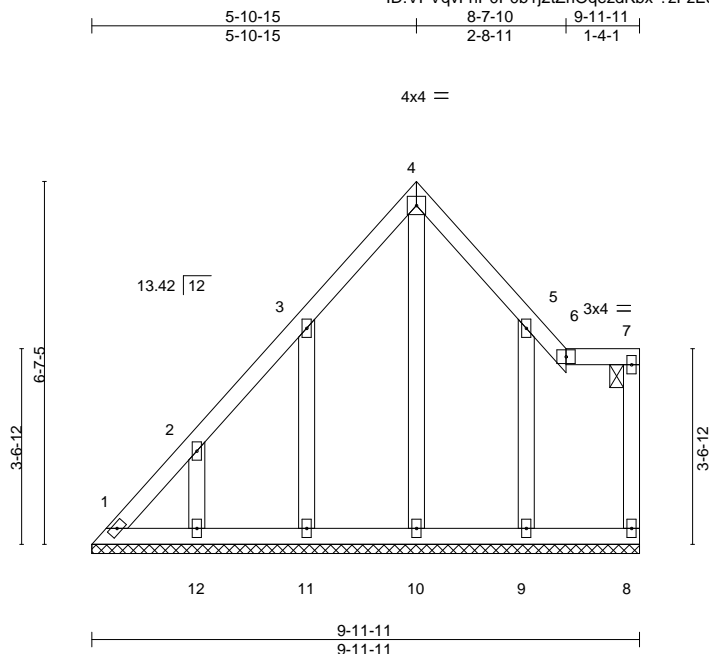


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616289
2629082	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 Feb 1 11:23:39 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-?zFzE8KOI6?Lm11OzVbnlrWvB6btk4Fd2706LKzpWnY



Scale = 1:42.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	-0.00	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								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=189(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 8, 10, 9 except 1=109(LC 8), 11=130(LC 12), 12=123(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 12 except 11=260(LC 19), 9=282(LC 20)

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

WEBS 5-9=-264/160

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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) 8, 10, 9 except (jt=lb) 1=109, 11=130, 12=123.
- 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.



February 2, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

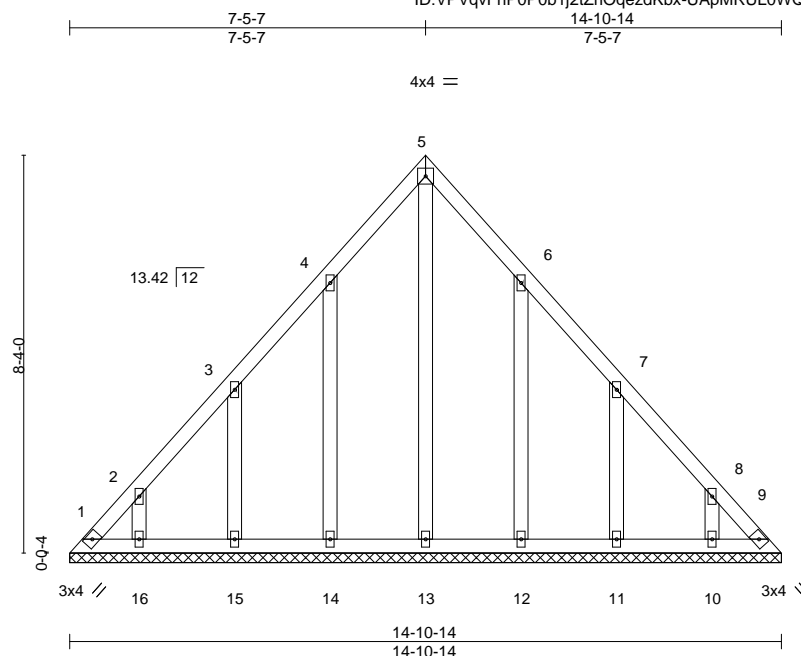
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG2	Lay-In Gable	1	1	I44616290
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:40 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-UApMRUL0WQ7CNBcaXC60r335FWxATXDmHnlgmzpWnX



Scale: 1/4"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.00	9	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									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=193(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=126(LC 12), 15=128(LC 12), 16=109(LC 12),
12=125(LC 13), 11=129(LC 13), 10=108(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 11, 10 except 14=253(LC 19), 12=252(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-275/174

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=126, 15=128, 16=109, 12=125, 11=129, 10=108.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 2,2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

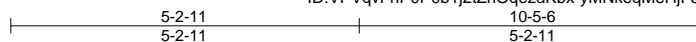
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616291
2629082	LG3	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

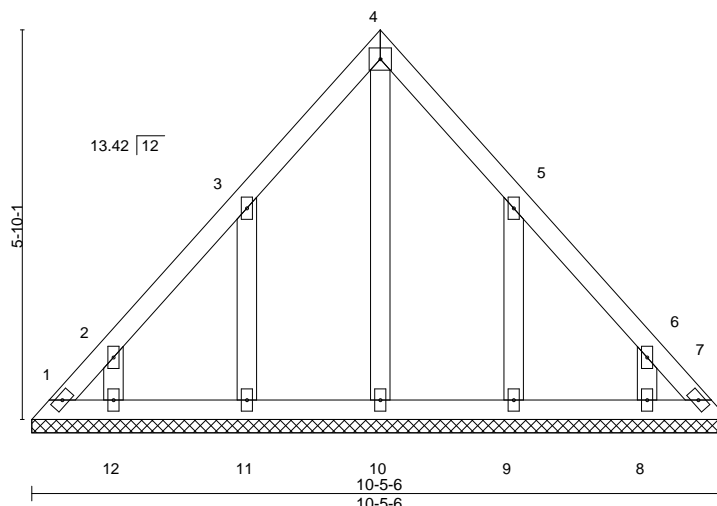
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:41 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-yMNkeqMeHjF3?KBn5weFNGbG?wHVC09wWRVDQCzPwNw



4x4 =

Scale = 1:34.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 43 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 10-5-6.
(lb) - Max Horz 1=133(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=134(LC 12), 12=104(LC 12), 9=134(LC 13), 8=104(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 12, 8 except 11=263(LC 19), 9=263(LC 20)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-2-11, Interior(1) 3-2-11 to 5-2-11, Exterior(2R) 5-2-11 to 8-2-11, Interior(1) 8-2-11 to 10-1-7 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
- 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, 7 except (jt=lb) 11=134, 12=104, 9=134, 8=104.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 2, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616292
2629082	LG4	GABLE	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:42 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-QYx6sANH11NwdUmzed9UwU8QOJdQxRB3k5EnyfzpWnV

0-2-8 10-9-6 16-8-10
0-2-8 10-6-14 5-11-4

Scale = 1:36.9

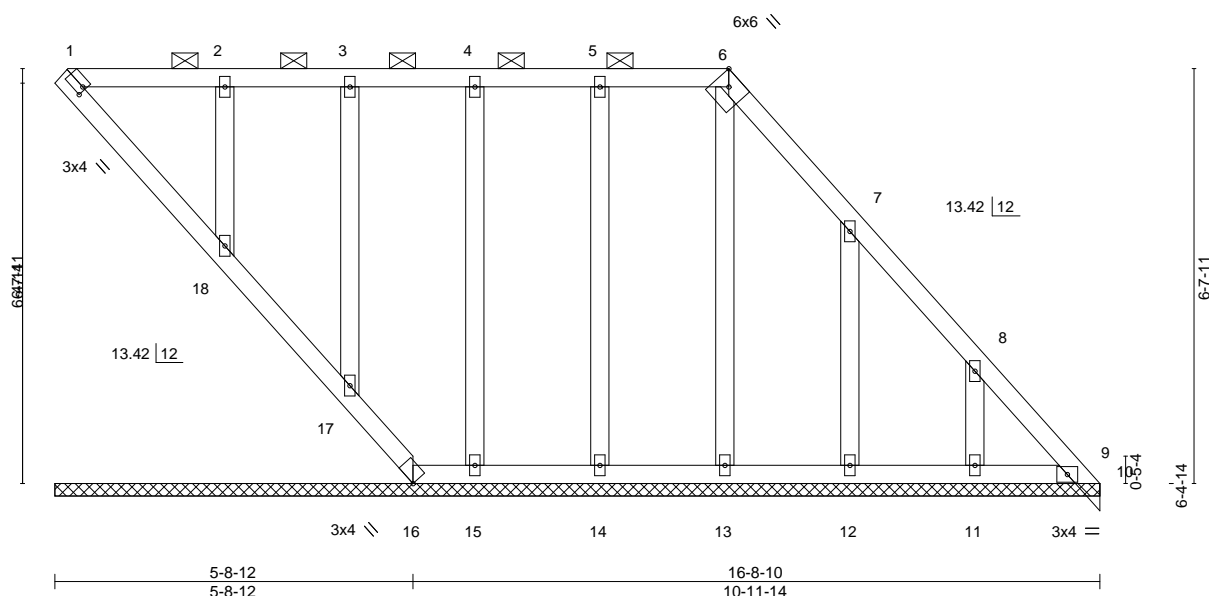


Plate Offsets (X,Y)-- [1:0-0-10,0-1-8], [6:0-2-10,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	9	n/r	120	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	9	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 80 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.): 1-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 16-8-10.
(lb) - Max Horz 1=238(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 14, 15, 17, 18 except 16=105(LC 13), 11=126(LC 13), 12=130(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 16, 9, 11, 13, 14, 15, 17 except 12=253(LC 20), 18=280(LC 25)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-2 to 3-4-2, Interior(1) 3-4-2 to 10-9-6, Exterior(2R) 10-9-6 to 15-0-5, Interior(1) 15-0-5 to 16-8-10 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
- 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, 14, 15, 17, 18 except (jt=lb) 16=105, 11=126, 12=130.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 17, 18.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 2, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

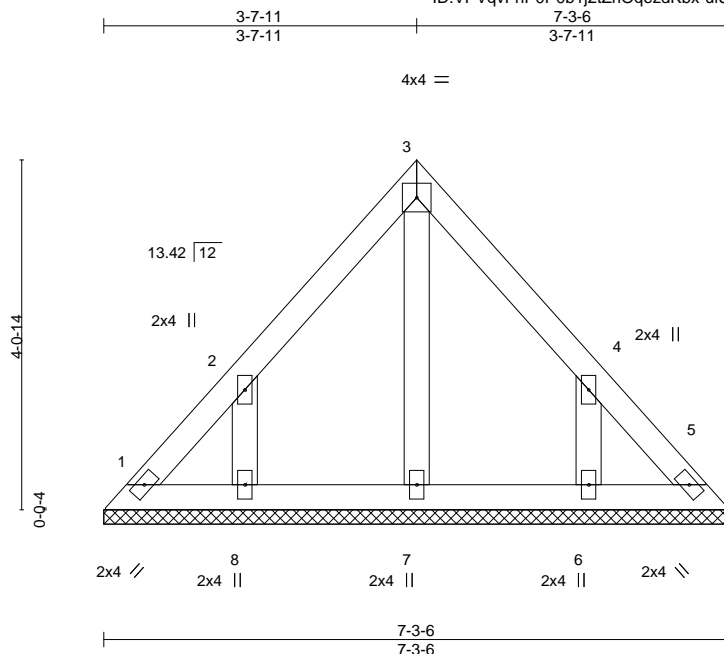
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616293
2629082	LG5	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:43 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-ulUU3WNvLvnEeL9CLgjShhaTjzzgwBDzl_KU5zpWnU



Scale = 1:26.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 26 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 7-3-6.
(lb) - Max Horz 1=90(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=133(LC 12), 6=133(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=252(LC 19), 6=252(LC 20)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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 except (it=lb) 8=133, 6=133.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 2, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

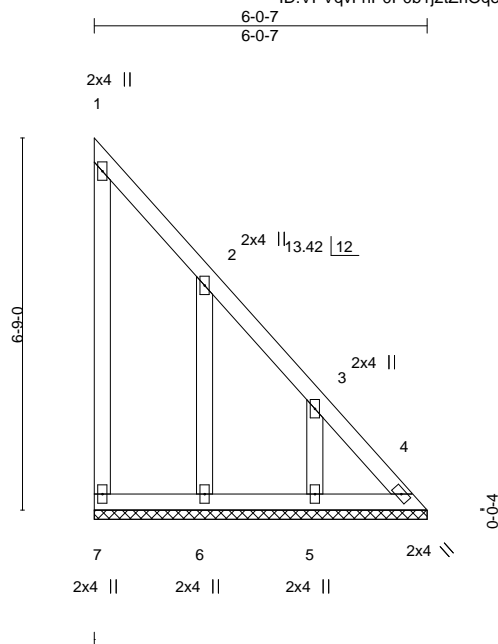
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG6	GABLE	1	1	I44616294
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:43 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-ulUU3WNvoLVnEeL9CLgjShhWxjzZgvTDzl_KU5zpWnU



Scale = 1:41.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	4	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=-222(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 7, 4 except 6=-131(LC 13), 5=-127(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 7, 4, 5 except 6=259(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-298/319, 3-4=-420/436
BOT CHORD 6-7=-295/304, 5-6=-295/304, 4-5=-295/304
WEBS 2-6=-250/153

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4 except (jt=lb) 6=131, 5=127.
- 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.



February 2, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

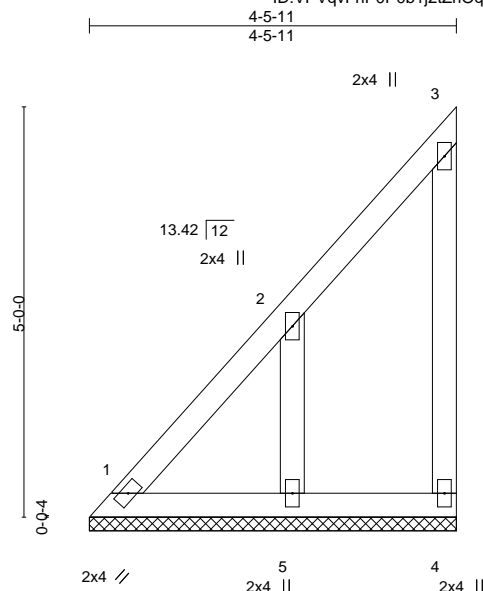
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG7	GABLE	1	1	I44616295
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:44 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-Mx2sHsOXZedesovMm2By?vDkb7J5PNDMCPjt0XzpWnT



Scale = 1:28.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						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=160(LC 11)
Max Uplift 1=42(LC 8), 4=55(LC 9), 5=154(LC 12)
Max Grav 1=154(LC 20), 4=97(LC 19), 5=303(LC 19)

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

TOP CHORD 1-2=-285/313
WEBS 2-5=-294/229

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) 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=154.
- 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.



February 2, 2021

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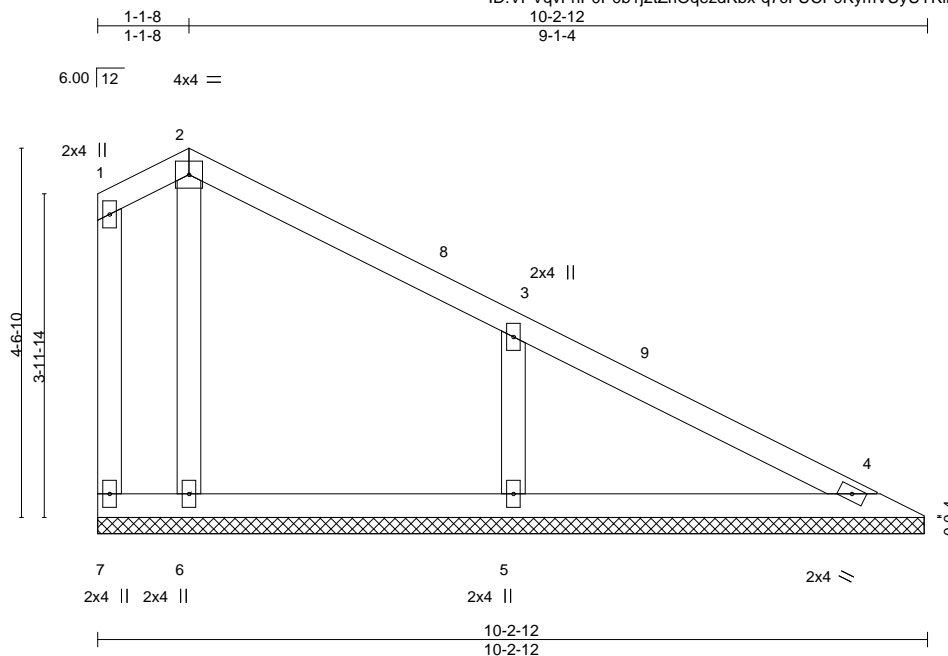
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16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:28.4

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) n/a - n/a 999	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.14	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S		Weight: 35 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	
WEBS	2x4 SPF No.2		Rigid ceiling directly applied or 6-0-0 oc bracing.
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 10-2-4.
(lb) - Max Horz 7=146(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 7, 6 except 5=132(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=276(LC 1), 5=566(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-5=-452/246

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6 except (jt=lb) 5=132.
- 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.



February 2, 2021

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



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Chesterfield, MO 63017

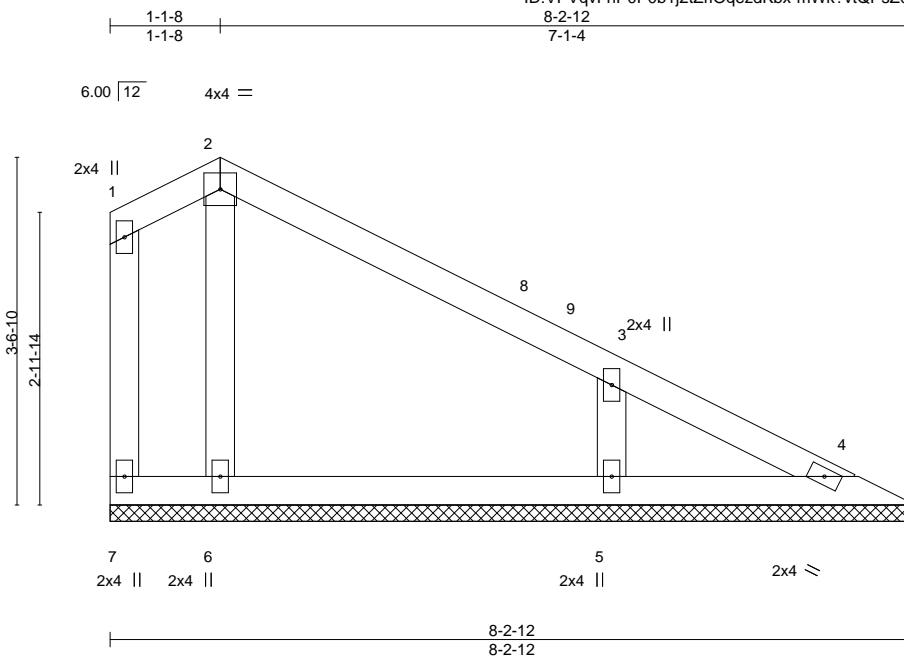
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V2	Valley	1	1	I44616297
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:47 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-mWk?vtQPsZ0DjFexRAkfdXrEUKJ5ckqouNyXdszpWnQ



Scale = 1:23.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 27 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 8-2-4.

(lb) - Max Horz 7=109(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 7, 6 except 5=112(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=263(LC 1), 5=455(LC 1)

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

WEBS 3-5=-381/248

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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 7-7-3 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
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6 except (jt=lb) 5=112.
- 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.



February 2, 2021

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

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

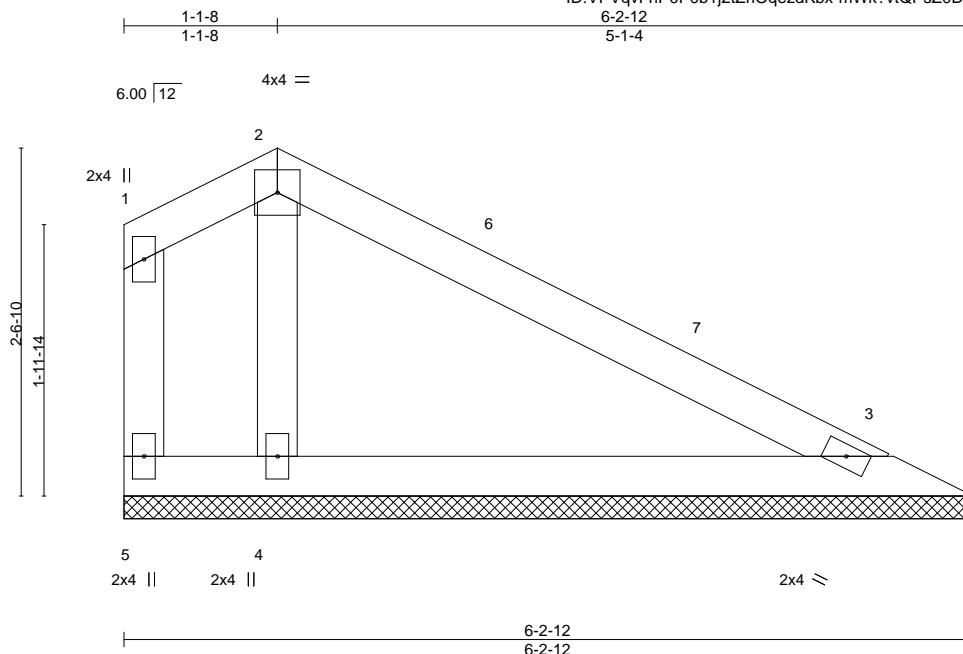
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V3	Valley	1	1	I44616298
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
Job Reference (optional)					

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:47 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-mWk?vtQPsZ0DjFexRAkfdXrApKI9ck1ouNyXdszpWnQ



Scale = 1:16.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 18 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.

(size) 5=6-2-4, 3=6-2-4, 4=6-2-4
Max Horz 5=-71(LC 8)
Max Uplift 5=-46(LC 3), 3=-33(LC 13), 4=-12(LC 13)
Max Grav 5=14(LC 19), 3=237(LC 1), 4=352(LC 1)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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 5-7-3 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
- 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, 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.



February 2,2021

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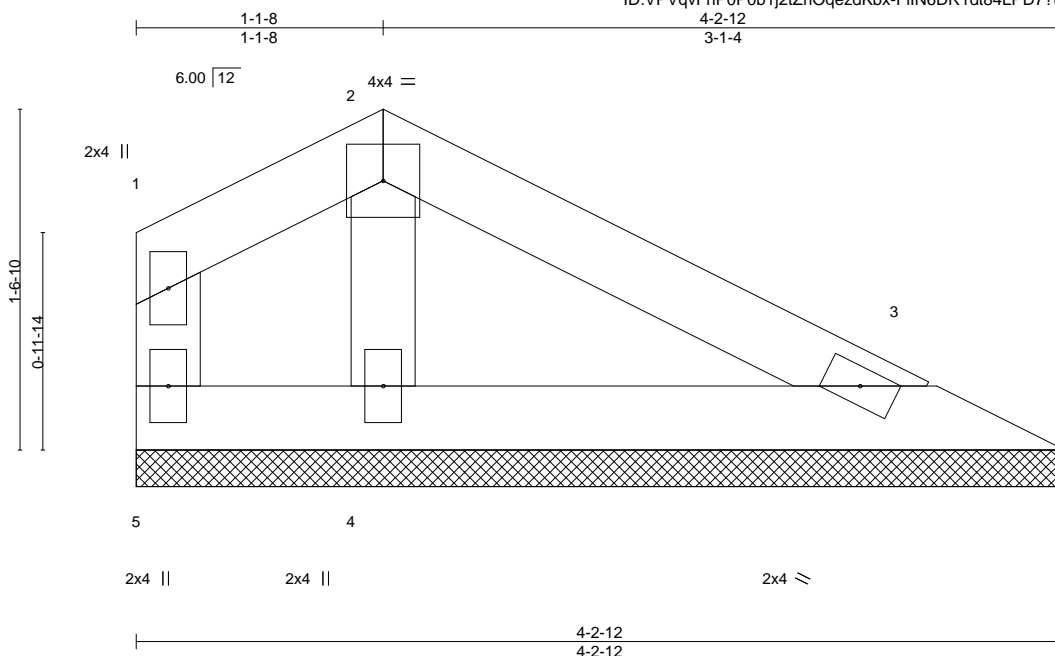
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss V4	Truss Type Valley	Qty 1	Ply 1	Summit/woodside ridge #21/mo 144616299
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:48 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-FilN6DR1dt84LPD7?uGu9lOQ5kgyLBXy71h59lzpWnP



Scale = 1:10.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 11 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 4-2-12 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=-34(LC 10)
Max Uplift 5=-15(LC 12), 3=-19(LC 13), 4=-10(LC 13)
Max Grav 5=42(LC 1), 3=131(LC 1), 4=207(LC 1)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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, 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.



February 2, 2021

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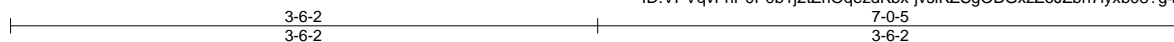


16023 Swingley Ridge Rd
Chesterfield, MO 63017

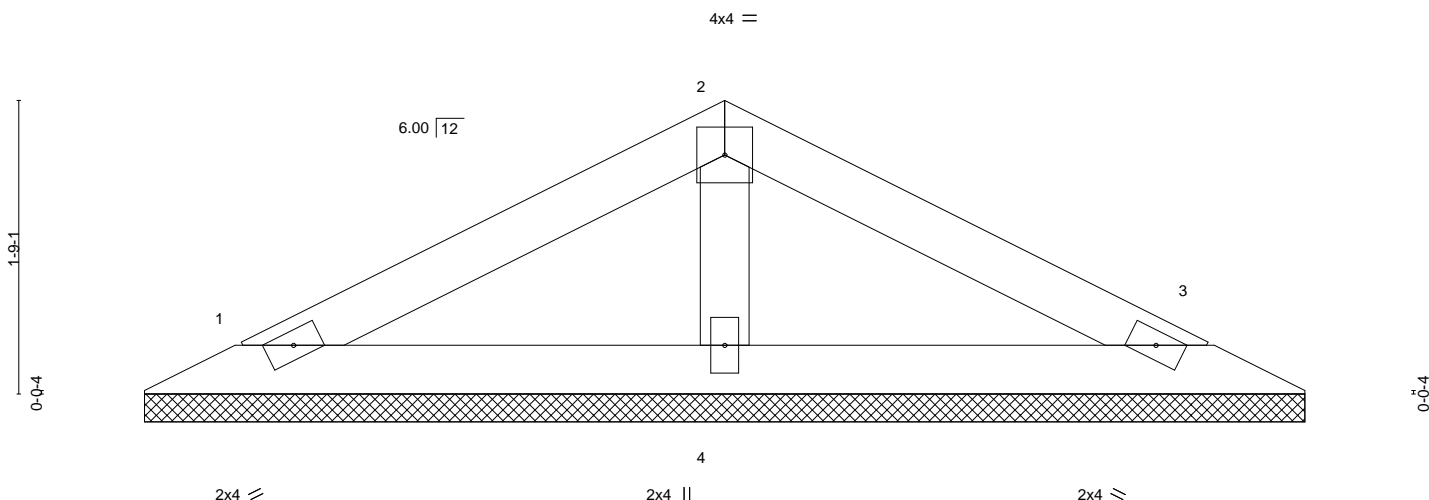
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V5	Valley	1	1	I44616300
Job Reference (optional)					

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:49 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-jvslKZSgOBGxzZoJZbn7iyxb08?g4ec5LhReilzpWnO



Scale = 1:13.8



0-0-8 0-0-8		7-0-5 6-11-13			
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	in (loc) l/defl L/d	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.07	Vert(LL) n/a - n/a 999	GRIP 197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Vert(CT) n/a - n/a 999	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Horz(CT) 0.00 3 n/a n/a	Weight: 17 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.

(size) 1=6-11-5, 3=6-11-5, 4=6-11-5
Max Horz 1=23(LC 16)
Max Uplift 1=28(LC 12), 3=32(LC 13), 4=10(LC 12)
Max Grav 1=164(LC 1), 3=164(LC 1), 4=307(LC 1)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 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, 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.



February 2, 2021

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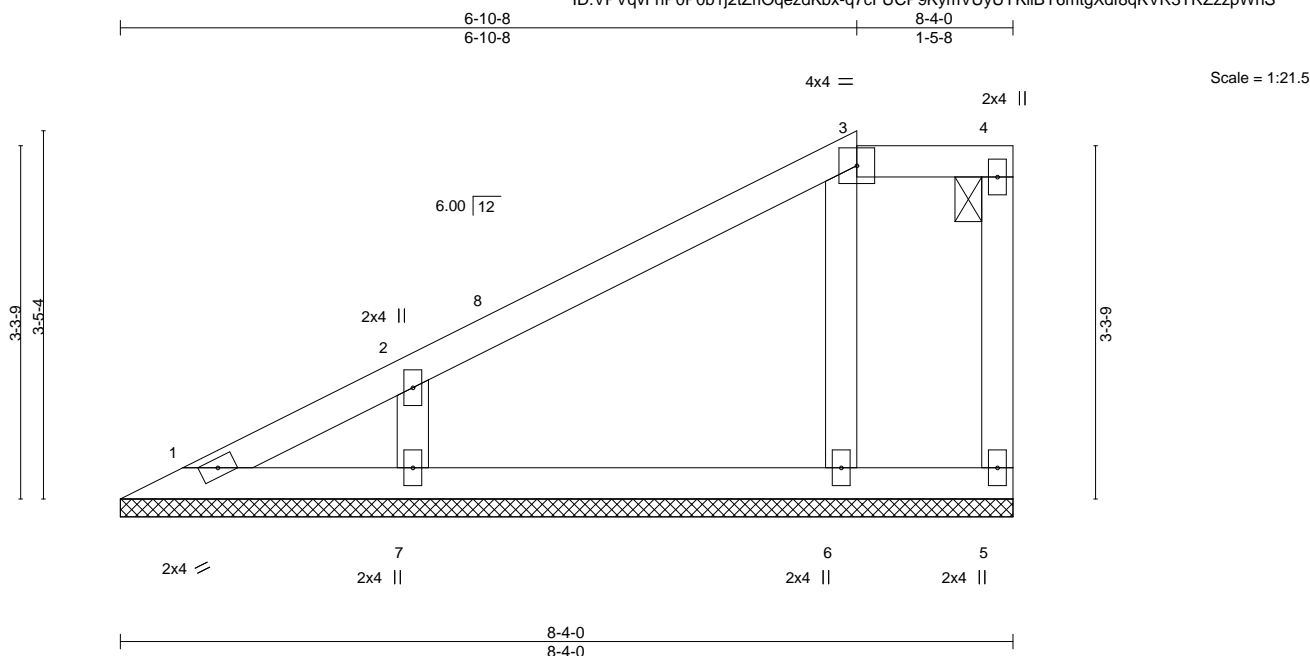
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2629082	Truss V11	Truss Type Valley	Qty 1	Ply 1	Summit/woodside ridge #21/mo I44616301
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:45 2021 Page 1
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-q7cFUCP9KymVUyUYKliBY6mtgXdf8qKVR3TRZzpWnS



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 26 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: 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

All bearings 8-4-0.
(lb) - Max Horz 1=112(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=113(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=286(LC 1), 7=457(LC 1)

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

WEBS 2-7=-385/222

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-7, Interior(1) 3-7-7 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
- 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 except (jt=lb) 7=113.
- 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.



February 2, 2021

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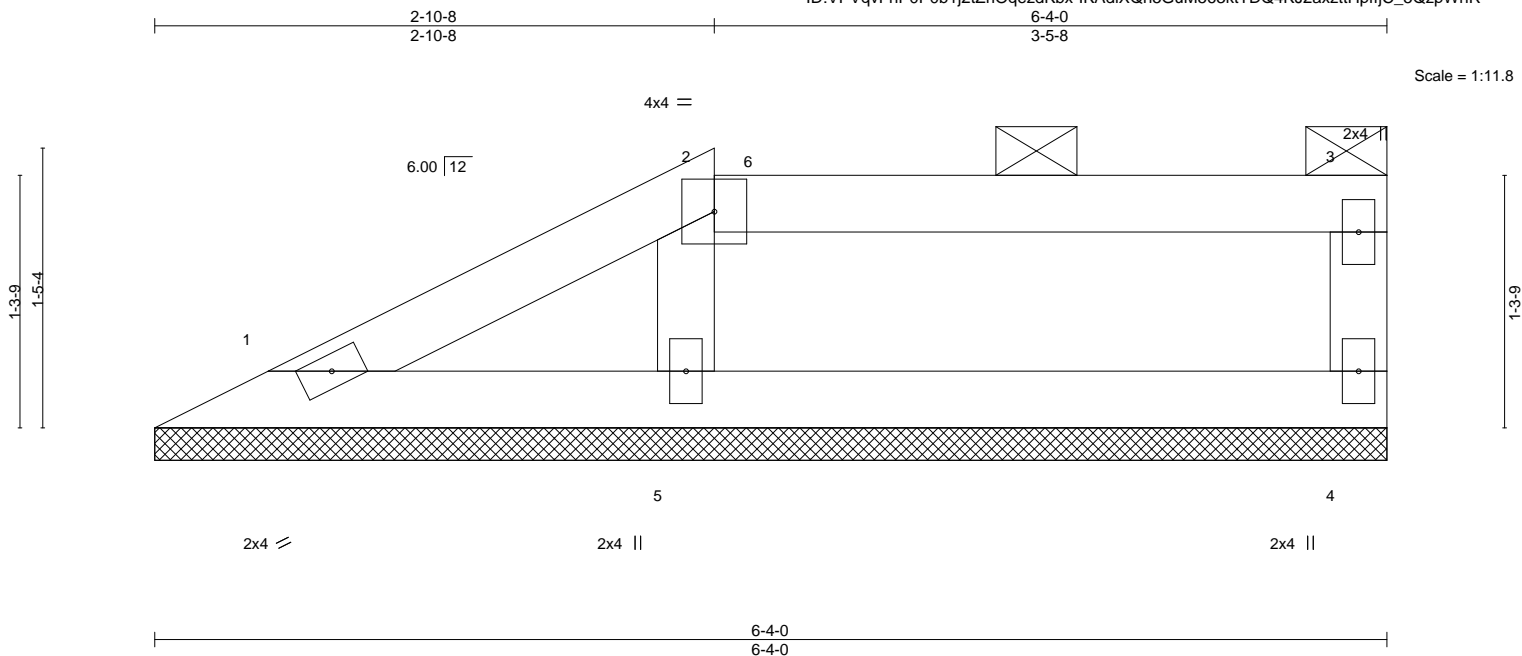


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616302
2629082	V12	Valley	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:46 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-1KAdiXQn5GuM563ktDQ4KJ2axzttHpfjC_5QzpWnR



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 16 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 6-4-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 1=6-4-0, 4=6-4-0, 5=6-4-0
Max Horz 1=37(LC 9)
Max Uplift 1=-16(LC 12), 4=-29(LC 8), 5=-34(LC 9)
Max Grav 1=95(LC 1), 4=177(LC 1), 5=341(LC 1)

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

WEBS 2-5=-271/163

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 2, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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

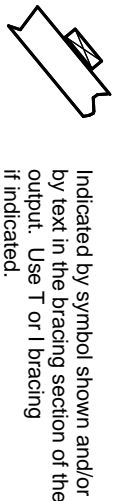
For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

PLATE SIZE

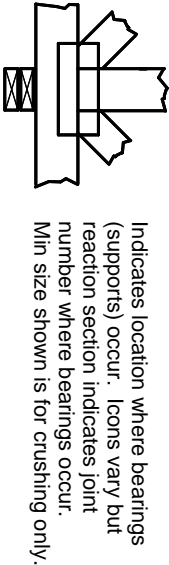
4 X 4

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

LATERAL BRACING LOCATION



BEARING



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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:
ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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Mittek 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 Tor1 bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.