



RELEASE FOR CONSTRUCTION  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
**12/30/2021**

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

Re: 3012161  
SUMMIT/STONEY CREEK #100/MO

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: I49230742 thru I49230825

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

Missouri COA: Engineering 001193



December 14, 2021

Garcia, Juan ,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.

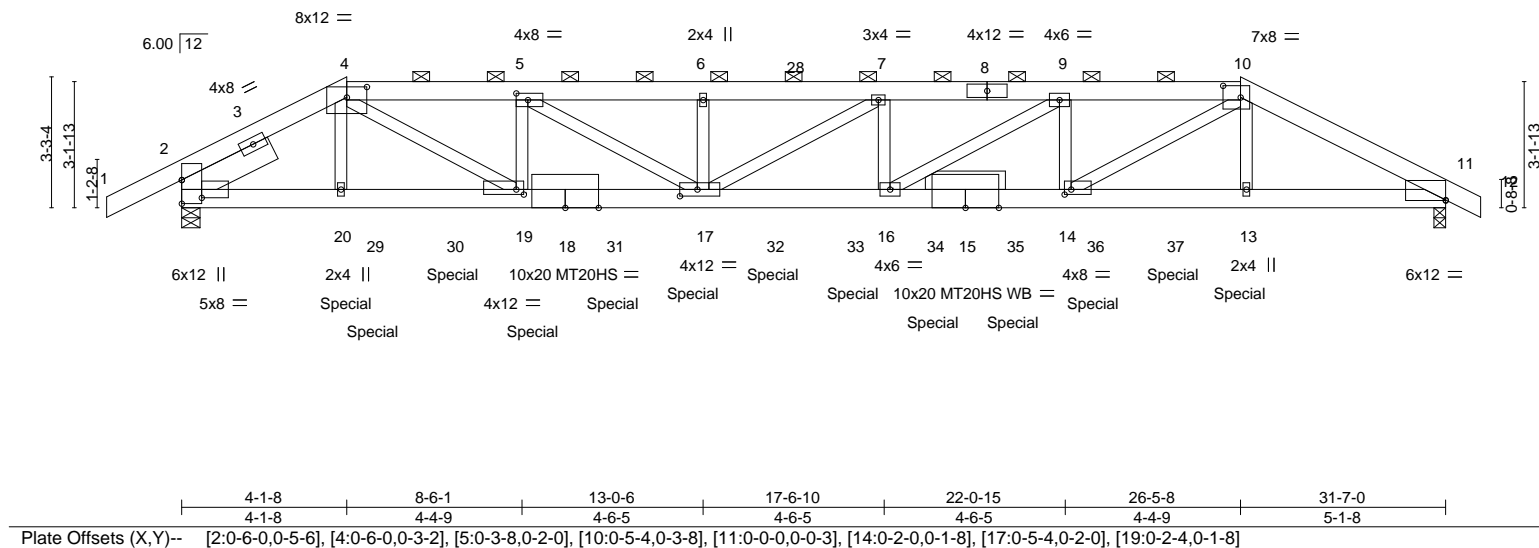
Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #10/0	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	A01	Hip Girder	1	1	Job Reference (optional)	12/30/2021

Builders First Source, Valley Center, KS 67147

ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-Dxx\_CmgRJWNbzIQI545p9pglvSM2X0H4LmJyn47b  
8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 14 10:51:04 2021 Page 1

-1-10-8	4-1-8	8-6-1	13-0-6	17-6-10	22-0-15	26-5-8	31-7-0
1-10-8	4-1-8	4-4-9	4-6-5	4-6-5	4-6-5	4-4-9	5-1-8

Scale = 1:57.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.71	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.92	Vert(LL) -0.48 16-17 >791 240	MT20HS	148/108
BCLL 0.0	Rep Stress Incr NO	WB 0.74	Vert(CT) -0.86 16-17 >443 180		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.16 11 n/a n/a		
				Weight: 182 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SPF 2100F 1.8E  
 BOT CHORD 2x6 SPF 2100F 1.8E \*Except\*  
 11-15: 2x6 SP 2400F 2.0E  
 WEBS 2x4 SPF No.2 \*Except\*  
 4-19,5-17,7-17,9-16,10-14: 2x4 SPF 1650F 1.5E  
 OTHERS 2x6 SPF No.2  
 SLIDER Left 2x8 SP 2400F 2.0E 2-6-0

#### BRACING-

TOP CHORD Sheathed or 3-2-10 oc purlins, except  
 2-0-0 oc purlins (2-8-3 max.): 4-10.  
 BOT CHORD Rigid ceiling directly applied or 5-7-14 oc bracing.

#### REACTIONS.

(size) 2=0-5-8, 11=0-3-8  
 Max Horz 2=54(LC 33)  
 Max Uplift 2=-949(LC 8), 11=-944(LC 9)  
 Max Grav 2=3424(LC 1), 11=3416(LC 1)

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

TOP CHORD 2-3=-1059/318, 3-4=-5227/1532, 4-5=-8340/2468, 5-6=-10210/3007, 6-28=-10210/3007,  
 7-28=-10210/3007, 7-8=-10480/3089, 8-9=-10480/3089, 9-10=-9035/2661,  
 10-11=-6570/1872  
 BOT CHORD 2-20=-1289/4474, 20-29=-1287/4465, 29-30=-1287/4465, 19-30=-1287/4465,  
 18-19=-2426/8339, 18-31=-2426/8339, 17-31=-2426/8339, 17-32=-3030/10480,  
 32-33=-3030/10480, 16-33=-3030/10480, 16-34=-2590/9034, 15-34=-2590/9034,  
 15-35=-2590/9034, 14-35=-2590/9034, 14-36=-1608/5762, 36-37=-1608/5762,  
 13-37=-1608/5762, 11-13=-1617/5797  
 WEBS 4-19=-1371/4585, 5-19=-1575/506, 5-17=-650/2198, 6-17=-297/131, 7-17=-335/209,  
 9-16=-520/1716, 9-14=-1265/421, 10-14=-1189/3915, 10-13=-178/656

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 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=949, 11=944.
- 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.Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Continued on page 2

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

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	A01	Hip Girder	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders First Source, Valley Center, KS 67147					8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 14 10:51:04 2021 Page 2	LEE'S SUMMIT, MISSOURI

**NOTES-**

- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 193 lb down and 96 lb up at 4-1-8, 275 lb down and 107 lb up at 4-8-8, 275 lb down and 107 lb up at 6-9-8, 275 lb down and 107 lb up at 8-9-8, 275 lb down and 107 lb up at 10-9-8, 275 lb down and 107 lb up at 12-9-8, 275 lb down and 107 lb up at 14-9-8, 275 lb down and 107 lb up at 16-9-8, 275 lb down and 107 lb up at 18-9-8, 275 lb down and 107 lb up at 20-9-8, 275 lb down and 107 lb up at 22-9-8, and 275 lb down and 107 lb up at 24-9-8, and 591 lb down and 216 lb up at 26-5-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-4=-70, 4-10=-70, 10-12=-70, 21-25=-20
- Concentrated Loads (lb)
- Vert: 20=-193(B) 19=-275(B) 17=-275(B) 13=-591(B) 29=-275(B) 30=-275(B) 31=-275(B) 32=-275(B) 33=-275(B) 34=-275(B) 35=-275(B) 36=-275(B) 37=-275(B)

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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/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	A02	Hip	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)		

LEE'S SUMMIT, MISSOURI

-1-10-8	5-5-8	11-11-9	18-7-7	25-1-8	31-7-0	32-5-8
1-10-8	5-5-8	6-6-1	6-7-13	6-6-1	6-5-8	0-10-8

Scale = 1:58.2

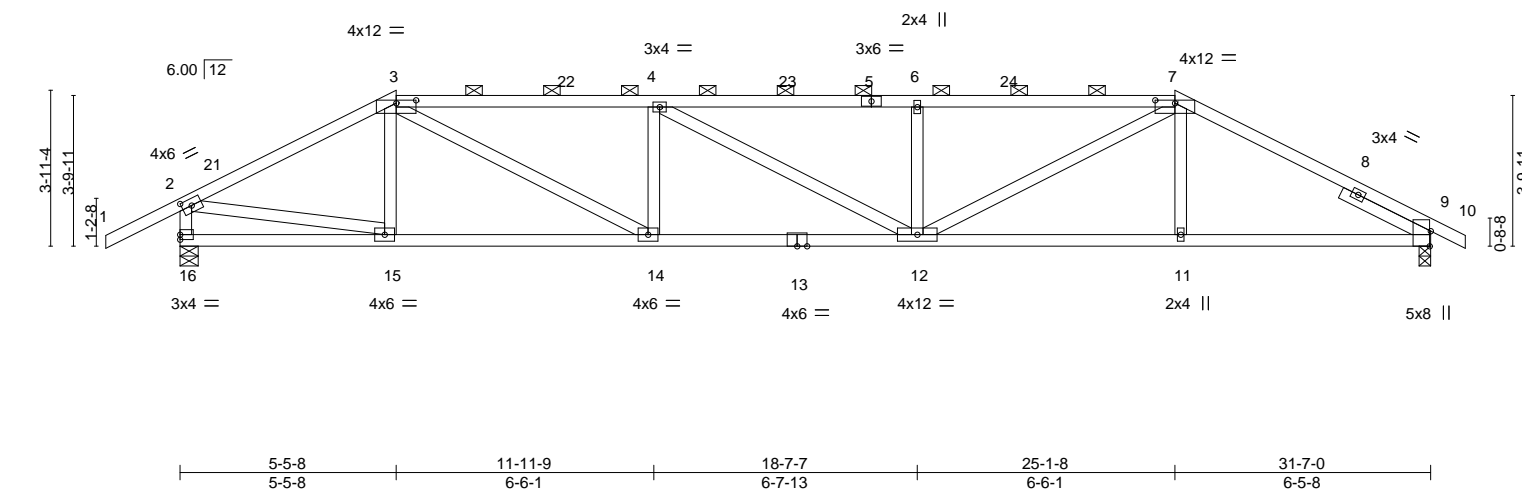


Plate Offsets (X,Y)--		[2:0-2-15,0-2-0], [3:0-6-0,0-0-15], [7:0-6-0,0-0-15], [9:0-4-9,Edge]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.89	Vert(LL)	-0.22 12-14	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.42 12-14	>892	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.10 9	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				<b>PLATES</b>		<b>GRIP</b>	
				MT20		197/144	
				Weight: 126 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 2-6-0

**BRACING-**

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

**REACTIONS.**

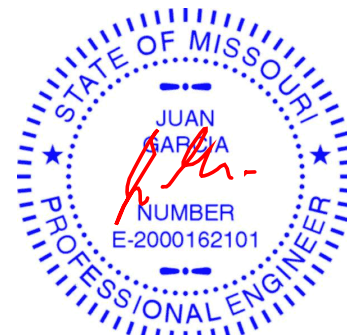
(size) 16=0-5-8, 9=0-3-8  
 Max Horz 16=-71(LC 10)  
 Max Uplift 16=-291(LC 12), 9=-273(LC 13)  
 Max Grav 16=1560(LC 1), 9=1472(LC 1)

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

TOP CHORD 2-3=-2047/377, 3-4=-3031/624, 4-6=-3140/644, 6-7=-3142/645, 7-9=-2364/429, 2-16=-1508/343  
 BOT CHORD 14-15=-315/1771, 12-14=-575/3029, 11-12=-319/2053, 9-11=-317/2057  
 WEBS 3-14=-345/1486, 4-14=-582/223, 6-12=-525/210, 7-12=-329/1338, 2-15=-303/1680

**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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-5-8, Exterior(2R) 5-5-8 to 9-8-7, Interior(1) 9-8-7 to 25-1-8, Exterior(2R) 25-1-8 to 29-4-7, Interior(1) 29-4-7 to 32-5-8 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) 16=291, 9=273.
- 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.



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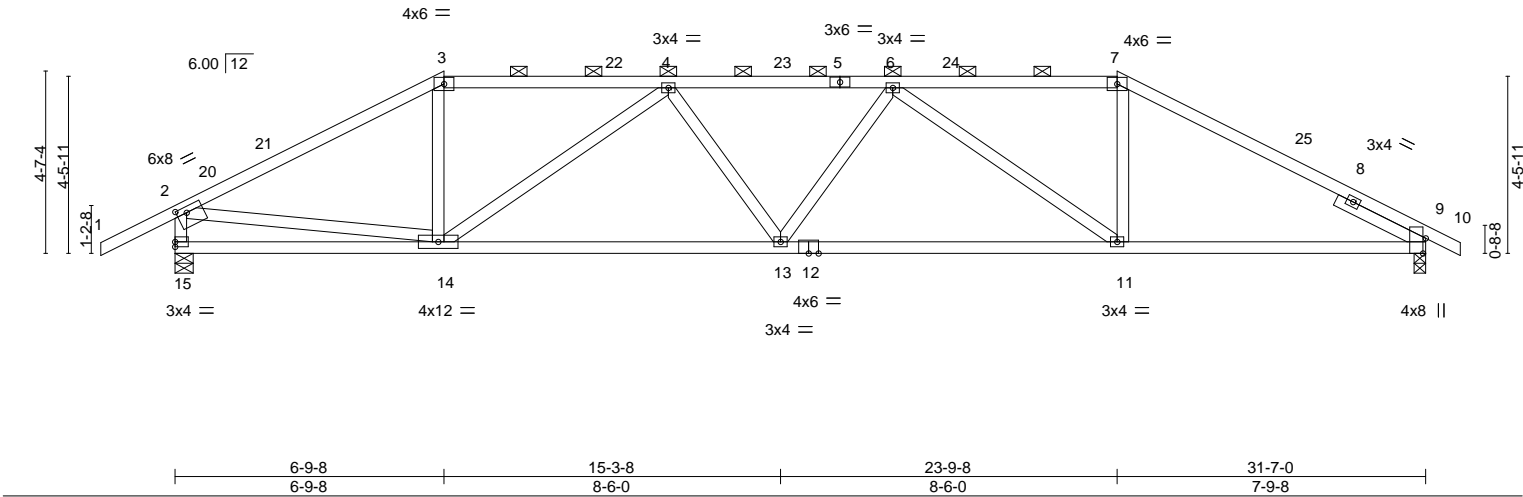
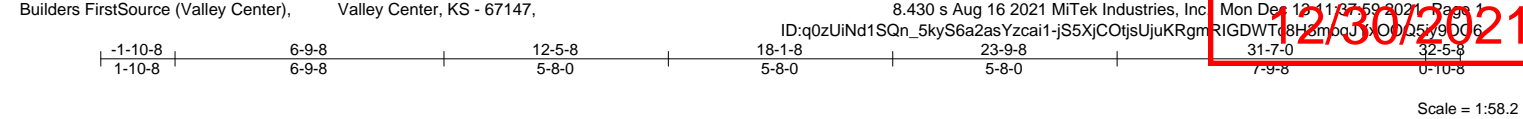
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	A03	Hip	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)	LEE'S SUMMIT, MISSOURI



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.18 11-13 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.40 11-13 >945 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.11 9 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 124 lb		FT = 20%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (3-4-0 max.): 3-7.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Right 2x4 SPF No.2 2-6-0		

**REACTIONS.** (size) 15=0-5-8, 9=0-3-8  
Max Horz 15=-79(LC 10)  
Max Uplift 15=-289(LC 12), 9=-272(LC 13)  
Max Grav 15=1560(LC 1), 9=1472(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2095/347, 3-4=-1779/355, 4-6=-2642/480, 6-7=-1981/418, 7-9=-2318/407,  
2-15=-1496/348  
BOT CHORD 14-15=-142/262, 13-14=-448/2543, 11-13=-439/2618, 9-11=-262/2000  
WEBS 3-14=-54/544, 4-14=-1024/269, 4-13=-43/259, 6-11=-913/261, 7-11=-74/657,  
2-14=-260/1549

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-9-8, Exterior(2R) 6-9-8 to 11-0-7, Interior(1) 11-0-7 to 23-9-8, Exterior(2R) 23-9-8 to 28-0-7, Interior(1) 28-0-7 to 32-5-8 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) 15=289, 9=272.
  - 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.



December 14,2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	A04	Hip	1	1	Job Reference (optional)		

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

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Scale = 1:57.2

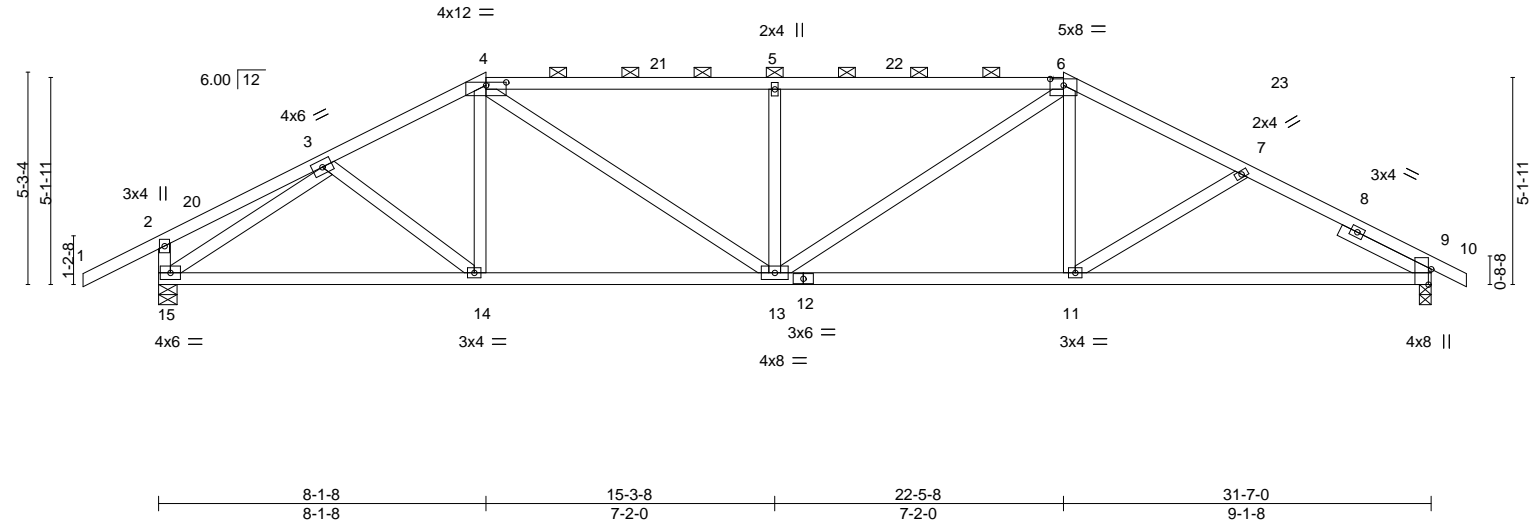


Plate Offsets (X,Y)-- [4:0-6-0,0-0-15], [6:0-4-0,0-1-15], [9:0-4-9,Edge]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d			<b>PLATES</b>	<b>GRIP</b>		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.15	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.28	11-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 133 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 2-6-0

#### BRACING-

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

#### REACTIONS.

(size) 15=0-5-8, 9=0-3-8  
Max Horz 15=-88(LC 10)  
Max Uplift 15=-288(LC 12), 9=-270(LC 13)  
Max Grav 15=1560(LC 1), 9=1472(LC 1)

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

TOP CHORD 3-4=-1989/357, 4-5=-2362/440, 5-6=-2362/440, 6-7=-2171/400, 7-9=-2323/446, 2-15=-380/165  
BOT CHORD 14-15=-299/1604, 13-14=-244/1747, 11-13=-208/1910, 9-11=-312/2015  
WEBS 3-14=-63/302, 4-13=-205/829, 5-13=-587/238, 6-13=-188/667, 6-11=0/324, 3-15=-1845/319

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-1-8, Exterior(2R) 8-1-8 to 12-4-7, Interior(1) 12-4-7 to 22-5-8, Exterior(2R) 22-5-8 to 26-8-7, Interior(1) 26-8-7 to 32-5-8 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) 15=288, 9=270.
- 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.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	A05	Roof Special	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)	LEE'S SUMMIT, MISSOURI

4-11-2	7-8-11	8-8-11	10-2-0	12-1-8	16-5-12	20-10-0	25-11-0	31-3-8	32-2-0
4-11-2	2-9-9	1-0-0	1-5-5	1-11-8	4-4-4	4-4-4	5-1-0	5-4-8	0-10-8

Scale = 1:55.9

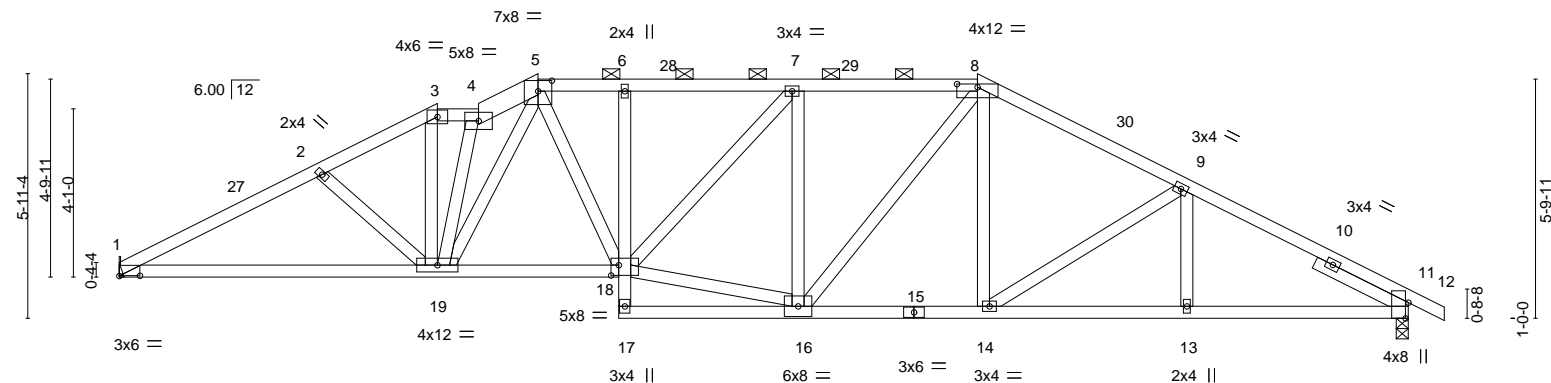


Plate Offsets (X,Y)--	[1:0-6-0,0-0-1], [5:0-4-0,0-3-1], [8:0-6-0,0-0-15], [11:0-4-9,Edge], [18:0-2-4,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.15 18-19	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.27 18-19	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.11 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 149 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except
4-5: 2x6 SPF No.2	2-0-0 oc purlins (3-6-12 max.): 3-4, 5-8.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 2-6-0	

<b>REACTIONS.</b>	(size) 1=Mechanical, 11=0-3-8
Max Horz 1=-121(LC 13)	
Max Uplift 1=-187(LC 12), 11=-212(LC 13)	
Max Grav 1=1407(LC 1), 11=1470(LC 1)	

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-2662/498, 2-3=-2452/468, 3-4=-2157/442, 4-5=-2647/560, 5-6=-2327/486, 6-7=-2319/486, 7-8=-2010/443, 8-9=-2069/418, 9-11=-2336/420
BOT CHORD	1-19=-363/2341, 18-19=-263/2147, 14-16=-217/1789, 13-14=-303/2027, 11-13=-303/2027
WEBS	3-19=-124/745, 4-19=-983/208, 8-14=-52/297, 9-14=-294/172, 7-16=-694/186, 8-16=-124/483, 16-18=-243/1939, 7-18=-73/474, 5-19=-159/573, 5-18=-119/532

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-1-9, Interior(1) 3-1-9 to 7-8-11, Exterior(2E) 7-8-11 to 8-8-11, Interior(1) 8-8-11 to 10-2-0, Exterior(2R) 10-2-0 to 13-3-9, Interior(1) 13-3-9 to 20-10-0, Exterior(2R) 20-10-0 to 23-11-9, Interior(1) 23-11-9 to 32-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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) 1=187, 11=212.
  - 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.



December 14, 2021

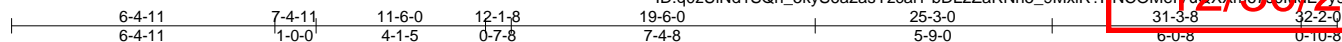
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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

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

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:03 2021 Page 1

ID:g0zUiNd1SQn 5kvS6a2asYzca1-bDL2ZaRNn5 9MxIR?H NCOMelYuCXxm67s0NcETv9002



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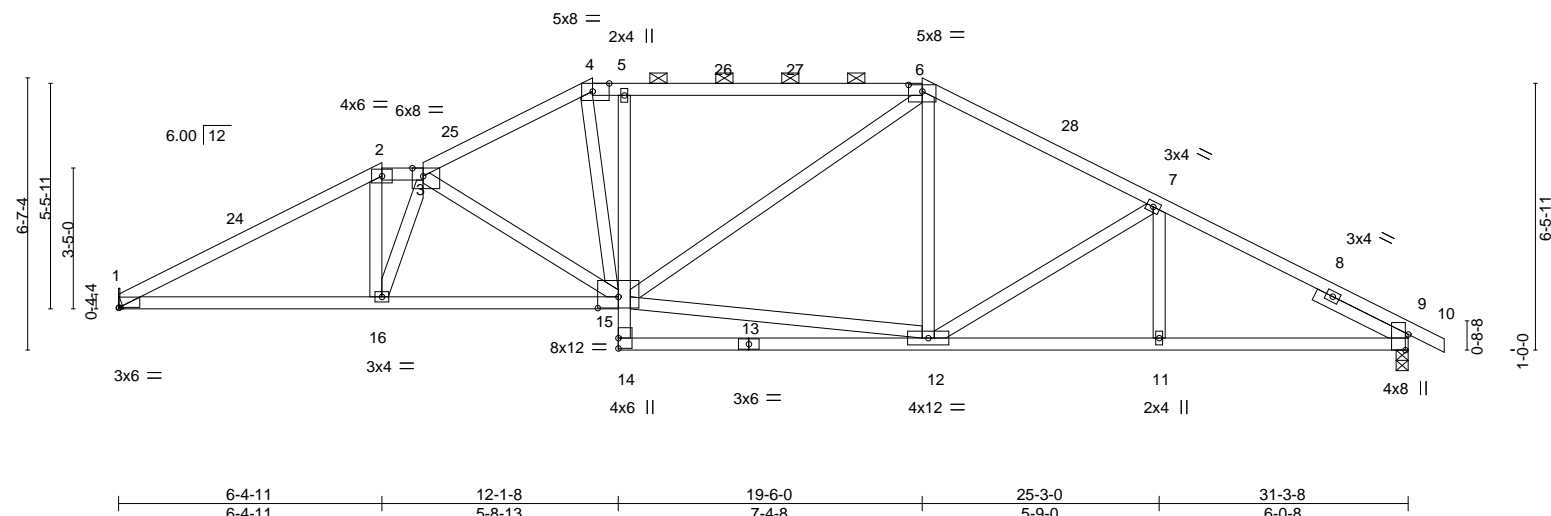


Plate Offsets (X,Y)-- [1:0-0-3,Edge], [3:0-3-3,Edge], [4:0-4-13,Edge], [6:0-4-0,0-1-15], [9:0-4-9,Edge], [15:0-6-0,0-3-4]													
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>		<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.15	5	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.30	12-14	>999	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.11	9	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 140 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 (3-0-1 max.): 2-3, 4-6.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Right 2x4 SPF No.2 2-6-0		

**REACTIONS.** (size) 1=Mechanical, 9=0-3-8  
 Max Horz 1=133(LC 13)  
 Max Uplift 1=201(LC 12), 9=225(LC 13)  
 Max Grav 1=1407(LC 1), 9=1470(LC 1)

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

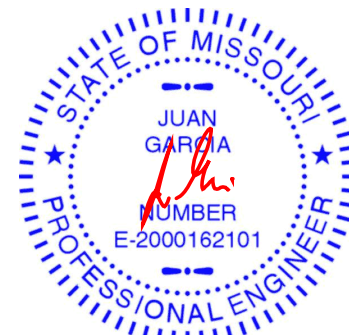
**TOP CHORD** 1-2=-2682/511, 2-3=-2300/505, 3-4=-2179/465, 4-5=-2080/484, 5-6=-2071/487,  
6-7=-1991/424, 7-9=-2330/429

**BOT CHORD** 1-16=-372/2334, 15-16=-404/2507, 5-15=-625/261, 11-12=-299/2020, 9-11=-299/2020

**WEBS** 2-16=-707/373, 3-16=-608/114, 3-15=-707/205, 4-15=-221/1037, 12-15=-202/1591,  
6-15=-114/565, 6-12=-41/271, 7-12=-379/203

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-1-9, Interior(1) 3-1-9 to 6-4-11, Exterior(2E) 6-4-11 to 7-4-11, Interior(1) 7-4-11 to 11-6-0, Exterior(2R) 11-6-0 to 14-7-9, Interior(1) 14-7-9 to 19-6-0, Exterior(2R) 19-6-0 to 22-7-9, Interior(1) 22-7-9 to 32-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 1=201, 9=225.
- 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.



December 14, 2021



**WARNING – Velly design parameters are listed below and included within key reference 1. See MIF-4743 (Rev. 3/19/2020) for more details.**  
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the building design 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/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	A07	Roof Special	1	1	Job Reference (optional)		

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:04 2021 Page 1

ID:q0zUiNd1Sqn\_5kyS6a2asYzcai1-3PuQmwS?YO60\_5JdZ?uRwaST\_21265016g1bny9001

5-0-11	6-0-11	12-1-8	12-10-0	18-2-0	24-7-0	31-3-8	32-2-0
5-0-11	1-0-0	6-0-13	0-8-8	5-4-0	6-5-0	6-8-8	0-10-8

Scale = 1:56.4

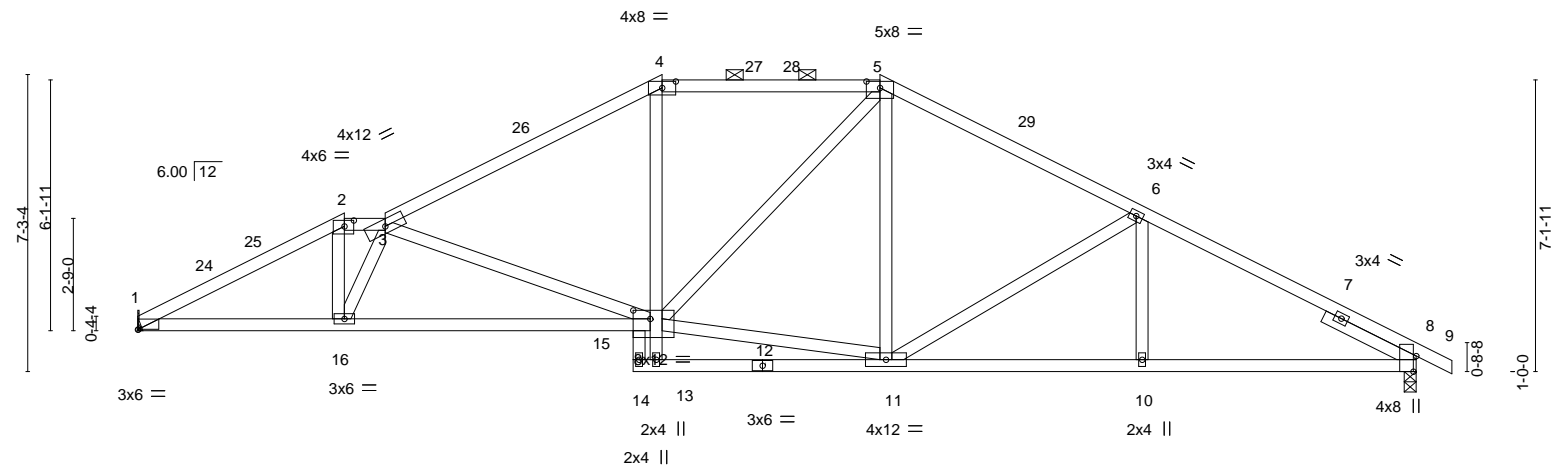


Plate Offsets (X,Y)--	[1:0-0-3,Edge], [2:0-2-12,0-1-12], [4:0-4-0,0-1-15], [5:0-4-0,0-1-15], [8:0-4-9,Edge], [15:0-5-0,0-2-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.70	Vert(LL)	-0.18 15-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.41 15-16	>919	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.11 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 136 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 2-6-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (3-5-15 max.): 2-3, 4-5.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 1=Mechanical, 8=0-3-8  
Max Horz 1=145(LC 13)  
Max Uplift 1=212(LC 12), 8=237(LC 13)  
Max Grav 1=1411(LC 1), 8=1472(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2793/498, 2-3=-2387/478, 3-4=-2189/449, 4-5=-1835/454, 5-6=-1885/413, 6-8=-2334/425  
BOT CHORD 1-16=-373/2450, 15-16=-462/2805, 10-11=-292/2022, 8-10=-292/2022  
WEBS 13-15=0/389, 4-15=-45/500, 2-16=-160/1076, 3-16=-1003/238, 3-15=-1007/299, 5-11=-62/254, 6-11=-514/232, 14-15=-262/0, 11-15=-187/1504, 5-15=-113/466

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-1-9, Interior(1) 3-1-9 to 5-0-11, Exterior(2E) 5-0-11 to 6-0-11, Interior(1) 6-0-11 to 12-10-0, Exterior(2R) 12-10-0 to 15-11-9, Interior(1) 15-11-9 to 18-2-0, Exterior(2R) 18-2-0 to 21-3-9, Interior(1) 21-3-9 to 32-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 1=212, 8=237.
- 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.



December 14, 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

16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	B01	Roof Special	1	1	Job Reference (optional)		

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

8.430 s Aug 16 2021 MiTek Industries, Inc
Mon Dec 14 11:36:08 2021 Page 1
ID:q0zUiNd1SQn\_5kyS6a2asYzca1-yB8xcHVWbdddRTidDoqzN5Q\_9J80C\_101-0vgysDh2
31-3-8 32-2-0
7-6-8 0-10-8

12/30/2021

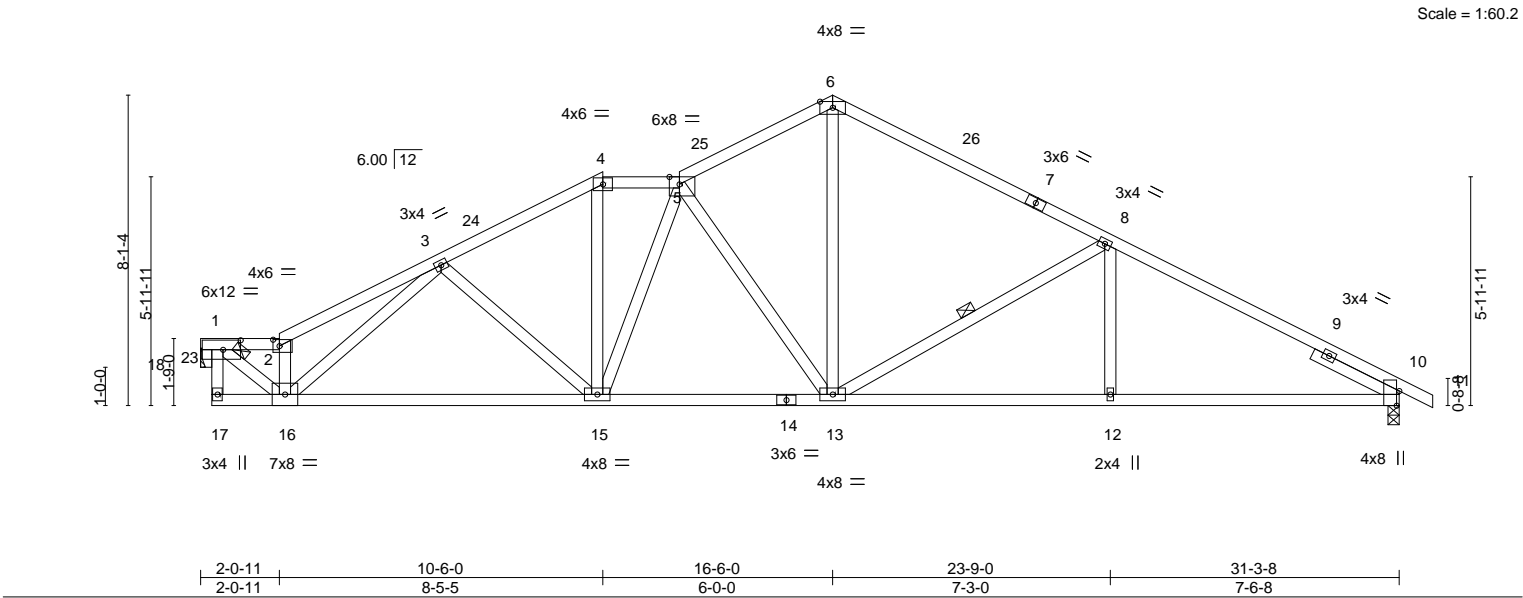


Plate Offsets (X,Y)--	[1:0-5-8,0-3-0], [2:0-2-0,0-2-0], [5:0-3-3,Edge], [10:0-4-9,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.13	12-13	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.29	15-16	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.07	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 139 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-2 max.): 1-2, 4-5.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 8-13
OTHERS 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 2-6-0	

**REACTIONS.** (size) 10=0-3-8, 23=Mechanical  
Max Horz 23=-153(LC 13)  
Max Uplift 10=-249(LC 13), 23=-235(LC 12)  
Max Grav 10=1467(LC 1), 23=1371(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-1911/310, 2-3=-2073/373, 3-4=-1999/400, 4-5=-1720/391, 5-6=-1645/385, 6-8=-1722/387, 8-10=-2309/409  
BOT CHORD 16-17=-106/377, 15-16=-364/1905, 13-15=-260/1833, 12-13=-253/1996, 10-12=-253/1996  
WEBS 1-16=-303/1989, 2-16=-1096/240, 3-15=-263/151, 4-15=-91/606, 5-15=-323/100, 5-13=-707/230, 6-13=-193/1027, 8-13=-690/270, 8-12=0/282, 1-23=-1617/276

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-4 to 2-0-11, Interior(1) 2-0-11 to 10-6-0, Exterior(2E) 10-6-0 to 12-6-0, Interior(1) 12-6-0 to 16-6-0, Exterior(2R) 16-6-0 to 19-7-9, Interior(1) 19-7-9 to 32-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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) 10=249, 23=235.
  - 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.

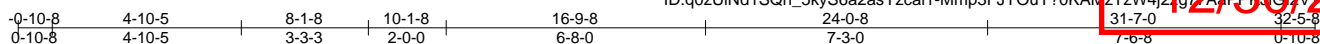


December 14,2021

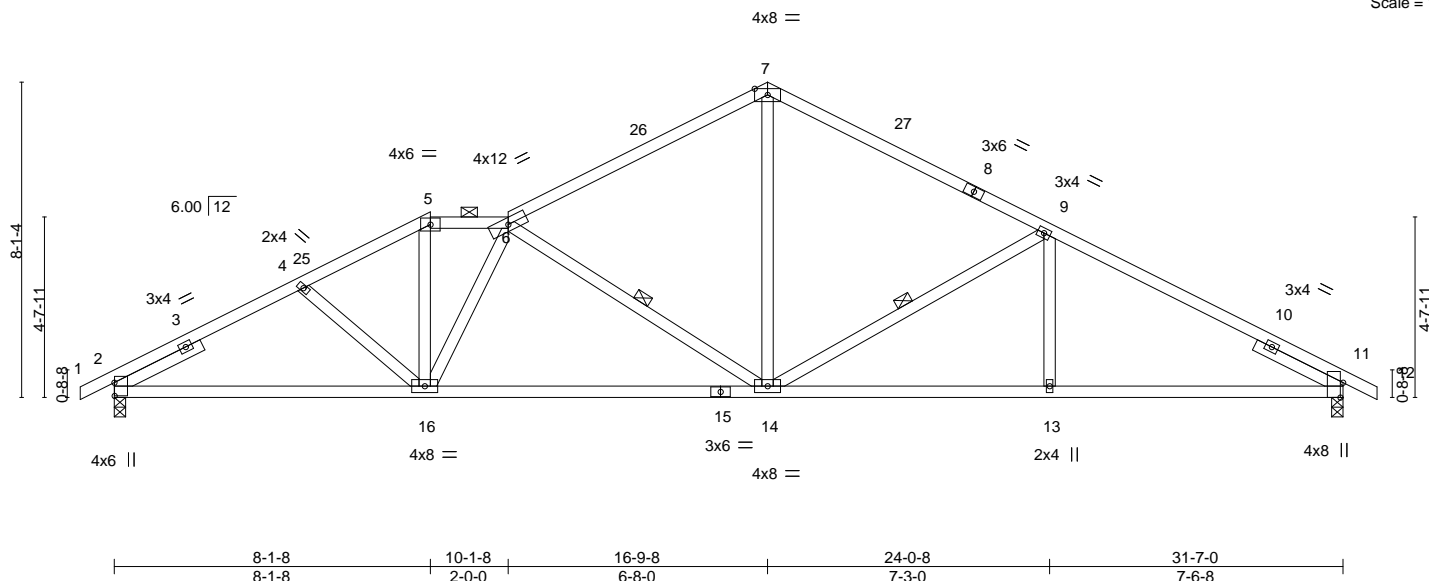


Builders FirstSource (Valley Center).	Valley Center, KS - 67147.
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8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 12 11:38:11 2021 Page 1  
ID:q0zUjNd1SQn 5kvS6a2asYzca1-Mmp3FJY0uY?0KAMzTzW4i2qZ7A3gPPiJGZVZ?9DNw



Scale = 1:59.2



**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

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

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=138(LC 12)  
 Max Uplift 2=-264(LC 12), 11=-247(LC 13)  
 Max Grav 2=1483(LC 1), 11=1483(LC 1)

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

**TOP CHORD** 2-4=-2347/429, 4-5=-2225/409, 5-6=-1955/393, 6-7=-1757/367, 7-9=-1766/381,  
9-11=-2343/404

**BOT CHORD** 2-16=-432/2030, 14-16=-394/2235, 13-14=-251/2017, 11-13=-251/2017

**WEBS** 5-16=-134/765, 6-16=-638/167, 6-14=-907/303, 7-14=-148/989, 9-14=-678/273,  
9-13=0/260

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; 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 8-1-8, Exterior(2E) 8-1-8 to 10-1-8, Interior(1) 10-1-8 to 16-9-8, Exterior(2R) 16-9-8 to 19-9-8, Interior(1) 19-9-8 to 32-5-8 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=264, 11=247.
- 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/TP1 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.



December 14, 2021



**WARNING – Velly design parameters are listed below and included within key reference 1. See MIF-1419 for 1/1/2020 by ONE USE.**  
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the 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

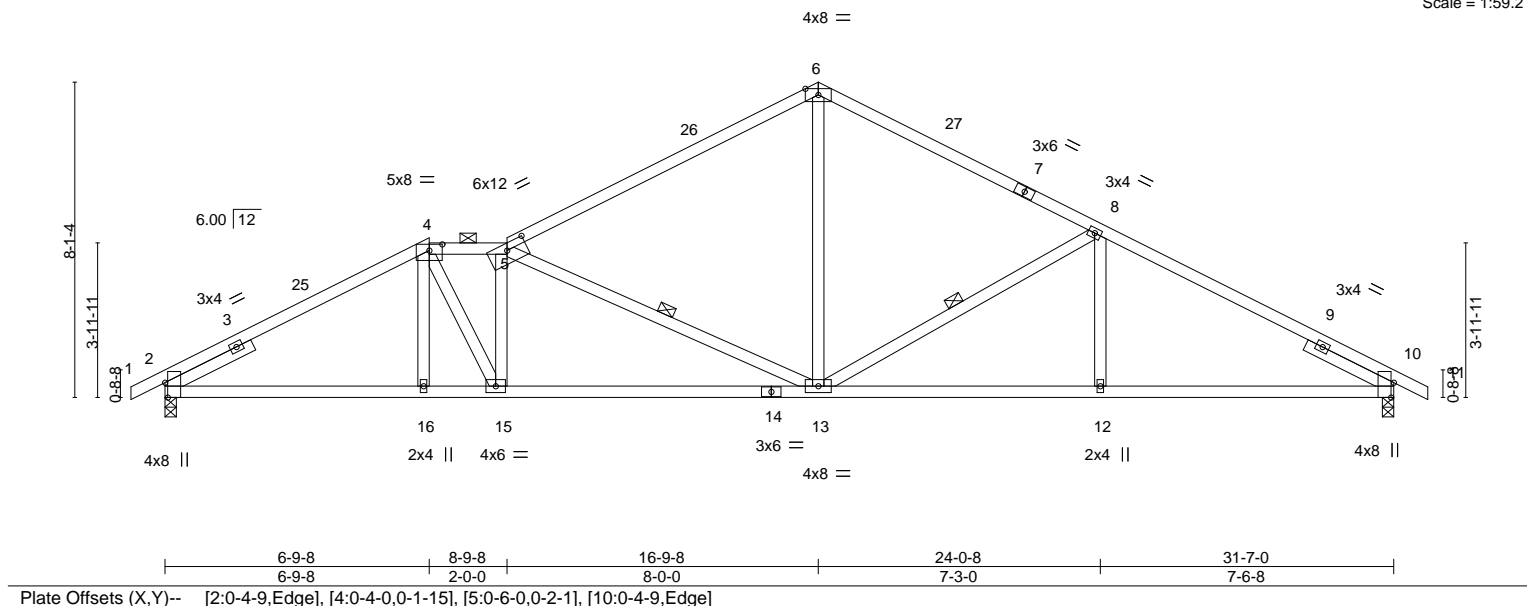


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	B04	Roof Special	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc	Mon Dec 12 11:36:12 2021 Page 1
Job Reference (optional)						ID:q0zUiNd1SQn_5kyS6a2asYzcai1-qyNRSfY0fs7txKx91g	JFGWmWwV8qXSww12R/9Dny
							149339754
							LEE'S SUMMIT, MISSOURI

0-10-8	6-9-8	8-9-8	16-9-8	24-0-8	31-7-0	32-5-8	0-10-8
0-10-8	6-9-8	2-0-0	8-0-0	7-3-0	7-6-8	0-10-8	

Scale = 1:59.2



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.90	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.72	Vert(LL) -0.14 13-15 >999 240		
BCLL 0.0	Rep Stress Incr YES	WB 0.42	Vert(CT) -0.34 13-15 >999 180		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.11 10 n/a n/a		
Weight: 129 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 2-6-0, Right 2x4 SPF No.2 2-6-0

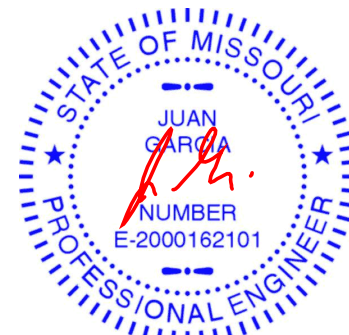
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (3-3-3 max.): 4-5.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 5-13, 8-13

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=138(LC 12)  
 Max Uplift 2=264(LC 12), 10=247(LC 13)  
 Max Grav 2=1482(LC 1), 10=1483(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-2342/416, 4-5=-2453/469, 5-6=-1785/362, 6-8=-1767/378, 8-10=-2333/399  
 BOT CHORD 2-16=-395/2029, 15-16=-395/2028, 13-15=-450/2481, 12-13=-249/2015, 10-12=-249/2015  
 WEBS 4-15=-138/954, 5-15=-722/183, 5-13=-1102/336, 6-13=-124/944, 8-13=-679/271,  
 8-12=0/264

**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=25ft; 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 6-9-8, Exterior(2E) 6-9-8 to 8-9-8, Interior(1) 8-9-8 to 16-9-8, Exterior(2R) 16-9-8 to 19-9-8, Interior(1) 19-9-8 to 32-5-8 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=264, 10=247.
- 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.



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

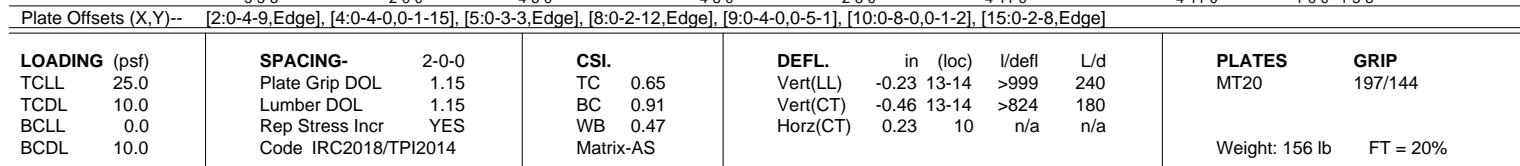
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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



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 Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 13 2021 Page 1  
 ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-J8xp?ZfQ9FkZTWaOYYo372wbltG-9899aYs5QJW  
 0-10-8 5-5-8 7-5-8 12-1-8 16-9-8 19-5-8 24-4-8 29-3-8 30-3-8 31-7-0 32-5-8  
 0-10-8 5-5-8 2-0-0 4-8-0 4-8-0 2-8-0 4-11-0 4-11-0 1-5-5 1-5-5 1-5-5 1-5-5

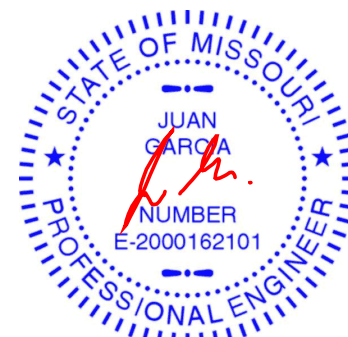


**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=-145(LC 13)  
 Max Uplift 2=-264(LC 12), 10=-244(LC 13)  
 Max Grav 2=1483(LC 1), 10=1489(LC 1)

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

TOP CHORD	2-4=-2384/407, 4-5=-2031/396, 5-6=-2301/418, 6-7=-1909/380, 7-8=-2011/379, 8-9=-3066/488, 9-10=-597/144
BOT CHORD	2-20=-407/2075, 18-20=-493/2627, 14-15=-298/2779, 13-14=-357/2844, 9-13=-359/2834
WEBS	4-20=-101/922, 7-15=-184/1252, 8-15=-1251/373, 8-13=0/291, 15-18=-248/1911, 6-15=-531/217, 5-18=-773/230, 5-20=-1040/187

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; 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 5-5-8, Exterior(2E) 5-5-8 to 7-5-8, Interior(1) 7-5-8 to 16-9-8, Exterior(2R) 16-9-8 to 19-9-8, Interior(1) 19-9-8 to 32-5-8 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=264, 10=244.
- 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.



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**WARNING – Velly design parameters are listed ONLY on this and INCLUDED WITHIN KEY REFERENCE 1: AISC MH-143 (Rev. 3/19/2020) BY ONE USER.**  
 Design valid for use only with MITEk® connectors. This design is based only upon parameters shown, and is for the 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



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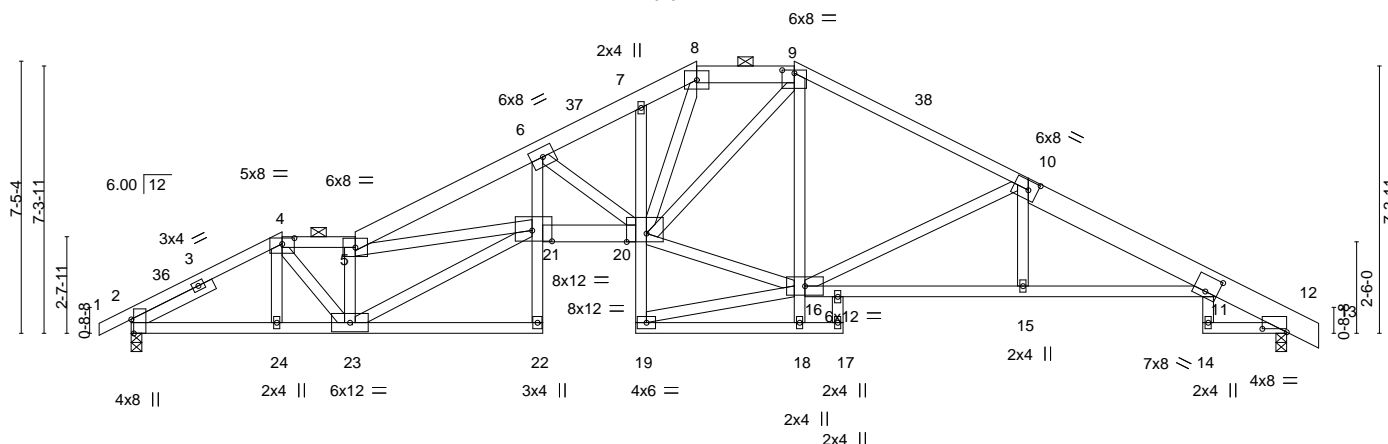
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:15 2021 Page 1

ID:q0zlJiNd1SOq\_5kyS6a2asYzcai1-EY3a4hbhwvV/SonpkioB0tu8M-TkSpL1a1u1uGGemv9ONs

0-10-8	4-1-8	6-1-8	11-3-0	13-9-8	15-5-8	18-1-8	19-5-8	24-4-8	29-3-8	31-7-0	32-5-8
0-10-8	4-1-8	2-0-0	5-1-8	2-6-8	1-8-0	2-8-0	1-4-0	4-11-0	2-3-8	5-10-8	

 $6 \times 8 =$ 

Scale = 1:63.0



4-1-8	6-1-8	11-3-0	13-9-8	15-5-8	18-1-8	19-5-8	24-4-8	29-3-8	31-7-0
4-1-8	2-0-0	5-1-8	2-6-8	1-8-0	2-8-0	1-4-0	4-11-0	4-11-0	2-3-8

Plate Offsets (X,Y)-- [2:0-4-9,Edge], [4:0-4-0,0-1-15], [9:0-4-0,0-1-0], [10:0-3-0,0-3-0], [11:0-4-0,0-5-1], [12:0-8-0,0-1-2], [20:0-6-8,Edge], [21:0-6-8,0-3-8]												
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	0.62	Vert(LL)	-0.34	21	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.63	21	>604	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.39	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 188 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
5-8,8-9: 2x6 SPF No.2, 10-13: 2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 \*Except\*  
20-21: 2x6 SPF No.2

WEBS 2x4 SPF No.2

SLIDER Left 2x4 SPF No.2 2-6-0

**BRACING-**

TOP CHORD	Structural wood sheathing directly applied or 2-7-13 oc purlins, except 2-0-0 oc purlins (3-3-1 max.): 4-5, 8-9.
BOT CHORD	Rigid ceiling directly applied or 1-4-12 oc bracing.

REACTIONS.

(size) 2=0-3-8, 12=0-3-8  
Max Horz 2=-132(LC 13)  
Max Uplift 2=-253(LC 12), 12=-229(LC 13)  
Max Grav 2=1491(LC 1), 12=1502(LC 1)

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

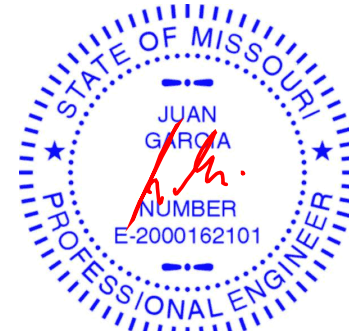
TOP CHORD 2-4=-2363/433, 4-5=-2948/529, 5-6=-5611/884, 6-7=-3410/593, 7-8=-3322/621,  
8-9=-2620/521, 9-10=-2203/432, 10-11=-3058/496, 11-12=-603/148

BOT CHORD 2-24=-395/2067, 23-24=-395/2072, 6-21=-322/2288, 20-21=-705/4944, 15-16=-352/2828,  
11-15=-354/2820

WEBS 4-23=-201/1427, 5-23=-2689/463, 21-23=-590/3446, 5-21=-188/1844, 6-20=-2426/478,  
10-16=-1056/288, 10-15-0/290, 16-20=-176/1970, 9-20=-199/1077, 8-20=-187/1209

**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=25ft; 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 4-1-8, Exterior(2E) 4-1-8 to 6-1-8, Interior(1) 6-1-8 to 15-5-8, Exterior(2E) 15-5-8 to 18-1-8, Exterior(2R) 18-1-8 to 21-1-8, Interior(1) 21-1-8 to 32-5-8 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=253, 12=229.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021



**WARNING – Velly design parameters are listed below and included within key reference 1. See MH-1413 (Rev. 3/19/2020) for more details.**  
 Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the 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



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Scale = 1:59.5



Plate Offsets (X,Y)-- [2:0-0-0,0-0-6], [4:0-2-12,0-2-4], [6:0-6-0,0-0-15], [8:0-4-0,0-1-15], [9:0-3-8,0-3-0], [10:0-4-0,0-5-1], [11:0-8-0,0-1-2], [16:0-7-4,0-2-12], [21:0-3-8,0-2-0]

Weight: 168 lb      FT = 20%

TOP CHORD	Structural wood sheathing directly applied or 2-11-11 oc purlins, except 2-0-0 oc purlins (2-9-2 max.): 3-4, 6-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-7-5 oc bracing: 19-21.

(size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=105(LC 36)  
 Max Uplift 2=-290(LC 8), 11=-213(LC 9)  
 Max Grav 2=1402(LC 1), 11=1485(LC 1)

TOP CHORD 2-3=-2221/428, 3-4=-4033/672, 4-5=-2855/422, 5-6=-2214/319, 6-7=-2298/286,  
7-8=-2123/285, 8-9=-2470/289, 9-10=-3088/368, 10-11=-596/119

BOT CHORD 2-21=-431/1850, 19-21=-702/3885, 18-19=-377/2501, 15-16=-178/2291, 14-15=-234/2868,  
10-14=-235/2860

WEBS 3-21=-332/2416, 4-21=-1068/198, 4-19=-1420/333, 5-19=-48/434, 5-18=-735/249,  
6-18=-71/368, 16-18=-185/1737, 6-16=-113/599, 7-15=-637/184, 8-15=-139/1049,  
9-15=-842/219

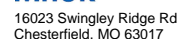
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=290, 11=213.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (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).

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



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

**WARNING – verify design parameters and loadings on this and included with the relevant AISC MHP-433 Rev. 3/15/2020 per ONE CODE.**  
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



Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	B08	Roof Special Girder	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 12 11:38:19 2021 Page 2  
ID:q0zUiNd1SQn\_5kyS6a2asYzca1-7II5w2eP0??tHOzVxefy1klzLSmHwWmVEToXySOMp

**LOAD CASE(S)** Standard  
Uniform Loads (plf)  
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 6-8=-70, 8-10=-70, 10-12=-70, 17-22=-20, 16-25=-20, 13-28=-20  
Concentrated Loads (lb)  
Vert: 3=41(F) 31=43(F)



Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	B09	Hip	1	1	Job Reference (optional)	149339759

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

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 14 11:36:20 2021 Page 1

ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-bUsT7Of2mJ7kvYYVMABayrCEEdUTAm9JKysOln

-0-10-8 5-1-9 9-5-8 17-5-8 20-1-8 27-3-8 29-7-0 30-5-8  
0-10-8 5-1-9 4-3-15 8-0-0 2-8-0 7-2-0 2-3-8 0-10-8

Scale = 1:52.8

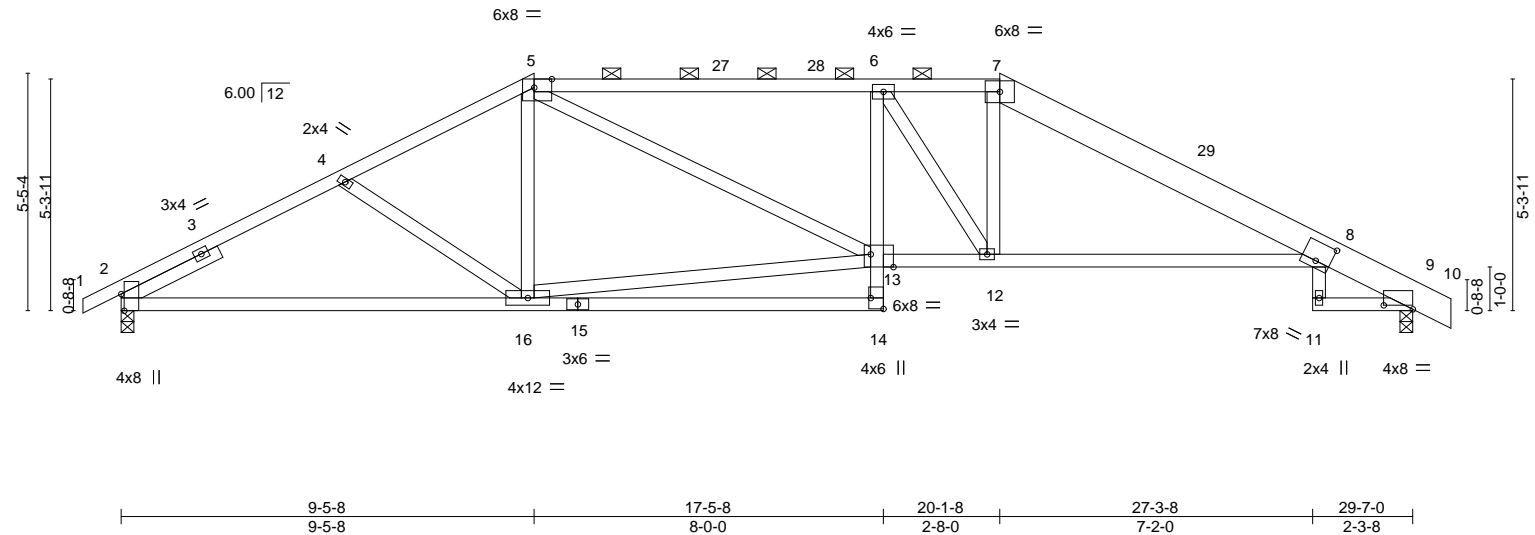


Plate Offsets (X,Y)--		[2:0-4-9,Edge], [5:0-4-13,Edge], [8:0-4-0,0-5-1], [9:0-8-0,0-1-2], [13:0-6-4,Edge], [14:Edge,0-3-8]																	
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL		1.15		TC	0.68	Vert(LL)	-0.25	12-23	>999		240		MT20		197/144		
TCDL	10.0	Lumber DOL		1.15		BC	0.90	Vert(CT)	-0.48	12-23	>741		180						
BCLL	0.0	Rep Stress Incr		YES		WB	0.37	Horz(CT)	0.22	9	n/a		n/a						
BCDL	10.0	Code IRC2018/TPI2014				Matrix-AS										Weight: 144 lb		FT = 20%	

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
5-7: 2x4 SPF 1650F 1.5E, 7-10: 2x8 SP 2400F 2.0E  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 2-6-0

**BRACING-**

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

**REACTIONS.**

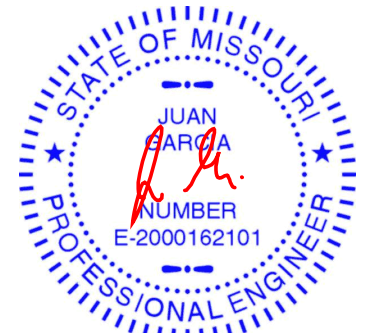
(size) 2=0-3-8, 9=0-3-8  
Max Horz 2=-96(LC 13)  
Max Uplift 2=-194(LC 12), 9=-191(LC 13)  
Max Grav 2=1393(LC 1), 9=1399(LC 1)

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

TOP CHORD 2-4=-2164/387, 4-5=-1989/357, 5-6=-2431/459, 6-7=-2226/406, 7-8=-2456/378,  
8-9=-557/137  
BOT CHORD 2-16=-265/1875, 14-16=0/268, 12-13=-270/2401, 8-12=-226/2208  
WEBS 13-16=-217/1526, 5-13=-180/848, 6-12=-474/185, 7-12=-110/603

**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=25ft; 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 9-5-8, Exterior(2R) 9-5-8 to 13-8-7, Interior(1) 13-8-7 to 20-1-8, Exterior(2R) 20-1-8 to 24-4-7, Interior(1) 24-4-7 to 30-5-8 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=194, 9=191.
- 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.



December 14, 2021

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

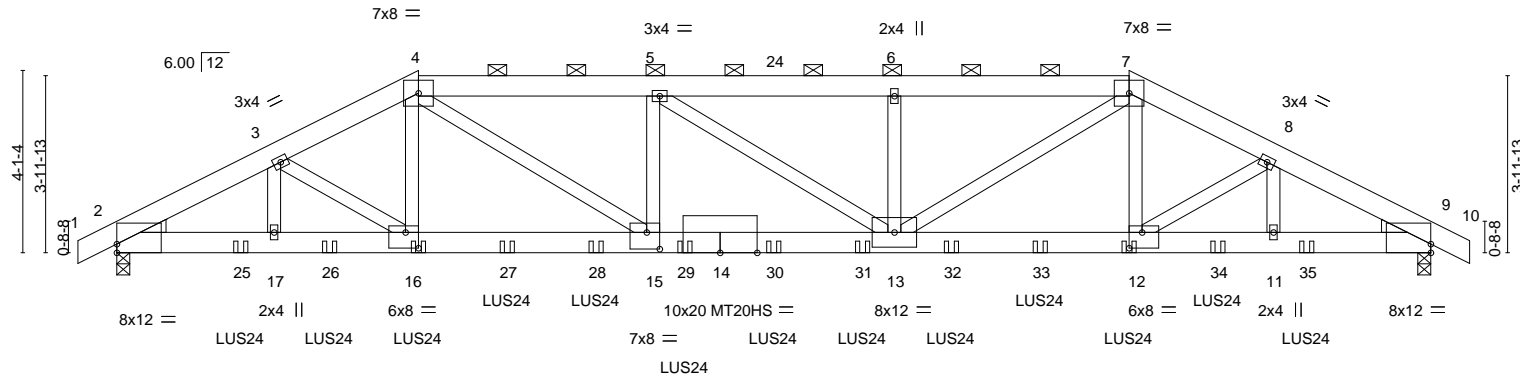
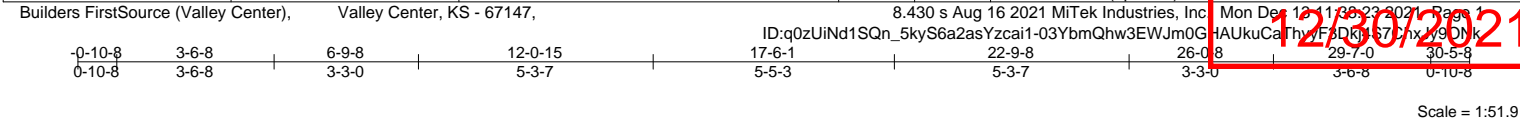
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	B11	HIP GIRDER	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)	LEE'S SUMMIT, MISSOURI



Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	B11	HIP GIRDER	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 12 11:35:23 2021 Page 2

ID:q0zUiNd1SQn\_5kyS6a2asYzca11-03YbmQhw3EWJm0GHAUkuCaThyJFADKt57TnxJ9DNk

12/30/2021

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 4-7=-70, 7-10=-70, 18-21=-20

Concentrated Loads (lb)

Vert: 16=-393(F) 12=-393(F) 25=-404(F) 26=-388(F) 27=-393(F) 28=-393(F) 29=-393(F) 30=-393(F) 31=-393(F) 32=-393(F) 33=-393(F) 34=-388(F) 35=-457(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	C01	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 12 11:36:25 2021 Page 1

ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-ySgMB5jAbrm1?JQfHmMH?YismzOneBmVfno?25v5ONi

12/30/2021

Scale = 1:56.8

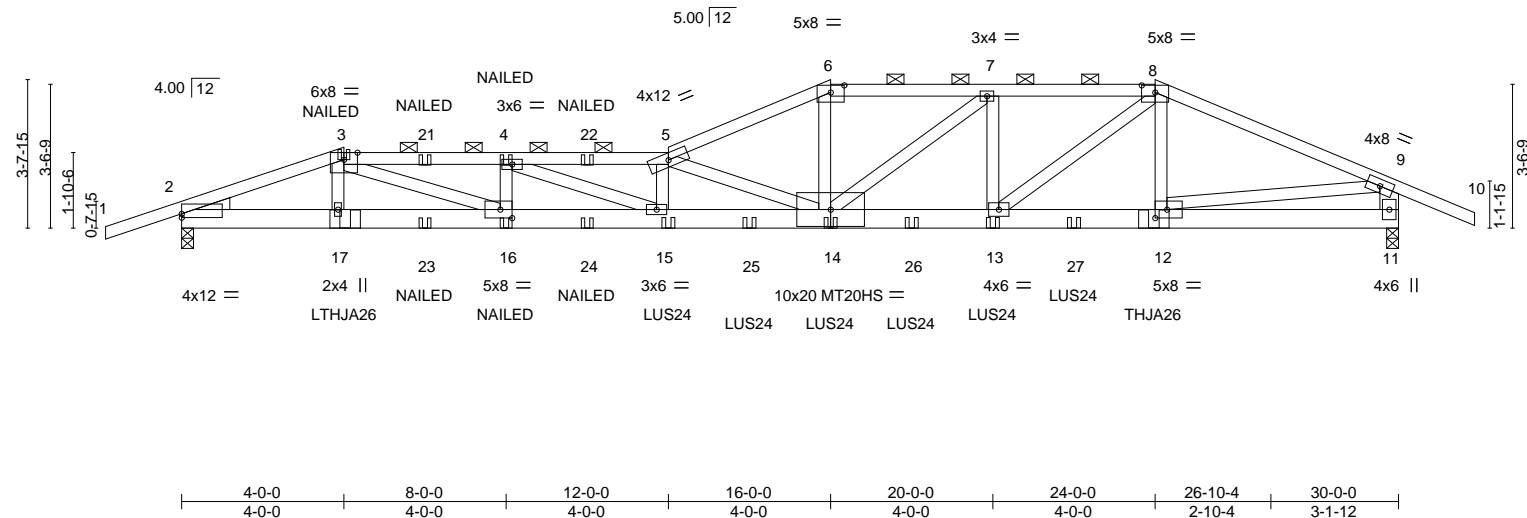


Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [6:0-4-0,0-2-2], [8:0-4-0,0-2-2], [12:0-3-8,0-2-8], [16:0-3-8,0-2-8]													
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>		<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.49	15	>729	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.87	15	>410	180	MT20HS	148/108	
BCLL	0.0	Rep Stress Incr	NO	WB	0.71	Horz(CT)	0.09	11	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 281 lb	FT = 20%	

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
3-5,6-8: 2x4 SPF 1650F 1.5E  
BOT CHORD 2x6 SPF 2100F 1.8E \*Except\*  
11-14: 2x6 SPF No.2  
WEBS 2x4 SPF No.2 \*Except\*  
9-11: 2x6 SPF No.2

WEDGE  
Left: 2x4 SP No.3

**REACTIONS.**

(size) 2=0-3-8, 11=0-3-8  
Max Horz 2=58(LC 33)  
Max Uplift 2=741(LC 4), 11=791(LC 5)  
Max Grav 2=2873(LC 1), 11=3129(LC 1)

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

TOP CHORD 2-3=-6514/1543, 3-4=-11564/2828, 4-5=-13800/3438, 5-6=-8149/2111, 6-7=-7489/1965,  
7-8=-6814/1846, 8-9=-5272/1402, 9-11=-3012/797  
BOT CHORD 2-17=-1430/6149, 16-17=-1443/6173, 15-16=-2777/11560, 14-15=-3411/13868,  
13-14=-1746/6812, 12-13=-1212/4790, 11-12=-143/514  
WEBS 3-17=-257/144, 3-16=-1430/5775, 4-16=-1694/527, 4-15=-659/2397, 5-15=-760/262,  
5-14=-6838/1658, 6-14=-738/2905, 7-14=-225/897, 7-13=-1009/258, 8-13=-686/2648,  
9-12=-1108/4332

**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, 2x6 - 2 rows staggered at 0-9-0 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=25ft; Cat. II; Exp C; Enclosed;  
MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 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=741, 11=791.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and Conference signed and ANSI/TPI 1.



December 14, 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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	C01	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Aug 16 2021 MiTek Industries, Inc.
Mon Dec 12 11:38:25 2021 Page 2
ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-ySgMB5jAbrm1?JQfHmMH?YismxOneBnwFho?2By4COj
12/30/2021

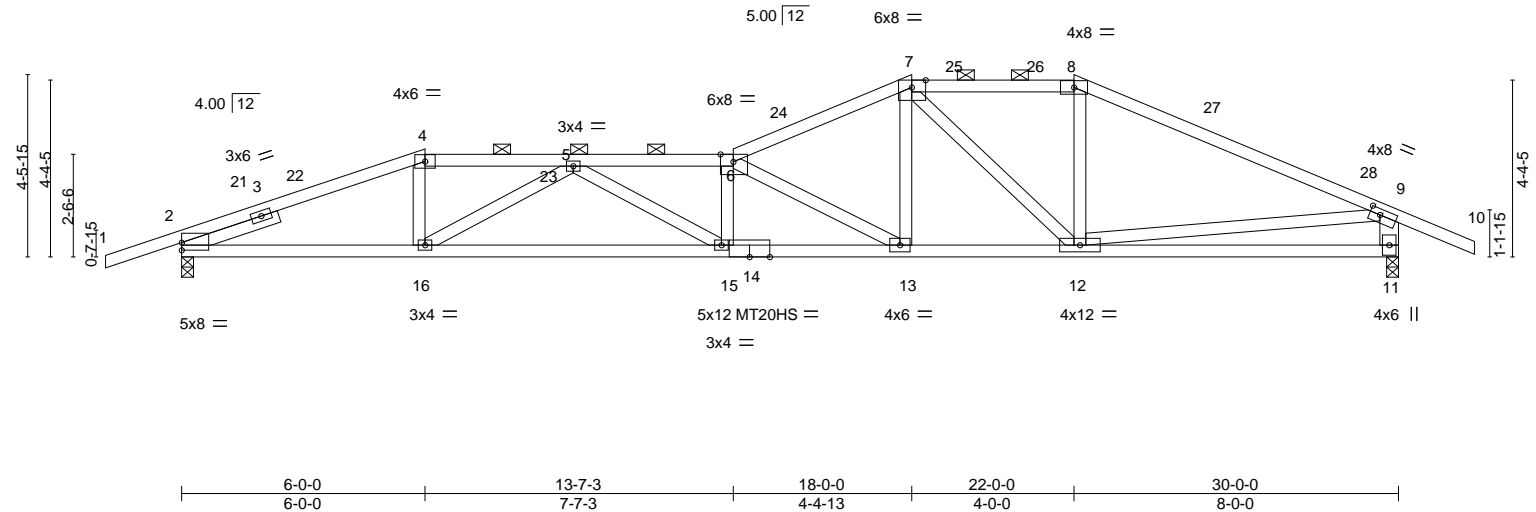
- NOTES-**
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) Use Simpson Strong-Tie LTHJA26 (LTHJA26 on 2 ply, Right Hand Hip) or equivalent at 4-0-6 from the left end to connect truss(es) to back face of bottom chord.
  - 12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 12-0-0 from the left end to 22-0-0 to connect truss(es) to back face of bottom chord.
  - 13) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Left Hand Hip) or equivalent at 23-11-10 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.
  - 15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
    - Uniform Loads (plf)
      - Vert: 1-3=-70, 3-5=-70, 5-6=-70, 6-8=-70, 8-9=-70, 9-10=-70, 11-18=-20
    - Concentrated Loads (lb)
      - Vert: 3=-79(B) 14=-290(B) 17=-223(B) 16=-48(B) 4=-79(B) 15=-282(B) 13=-290(B) 12=-631(B) 21=-79(B) 22=-82(B) 23=-48(B) 24=-51(B) 25=-285(B) 26=-290(B) 27=-290(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	C02	Roof Special	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)	LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 14 11:36:27 2021 Page 1  
ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-urn6bnkR7T0IFda2PkoQMqem2ZZ9UgXN1W44/9QDg  
12/30/2021 3:10-8

Scale = 1:56.8



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 0.77	Vert(LL)	-0.32 15-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.94	Vert(CT)	-0.64 15-16	>561	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.95	Horz(CT)	0.12 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
Weight: 122 lb									FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x4 SPF No.2 *Except*	2-0-0 oc purlins (2-6-0 max.): 4-6, 7-8.
2-14: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2 *Except*	
9-11: 2x6 SPF No.2	
SLIDER Left 2x4 SPF No.2 2-6-0	

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
Max Horz 2=72(LC 16)  
Max Uplift 2=346(LC 8), 11=209(LC 9)  
Max Grav 2=1470(LC 1), 11=1488(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-2918/689, 4-5=-2674/671, 5-6=-4289/1030, 6-7=-2585/670, 7-8=-1877/544,  
8-9=-2149/535, 9-11=-1405/473  
BOT CHORD 2-16=-592/2720, 15-16=-870/3831, 13-15=-951/4295, 12-13=-471/2296, 11-12=-132/439  
WEBS 4-16=-114/759, 5-16=-1345/369, 5-15=-87/529, 6-13=-2226/536, 7-13=-238/1115,  
7-12=-704/172, 8-12=-46/462, 9-12=-308/1453

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 18-0-0, Exterior(2R) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 25-0-0, Interior(1) 25-0-0 to 31-10-8 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.
- 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=346, 11=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.
- 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.



December 14, 2021

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

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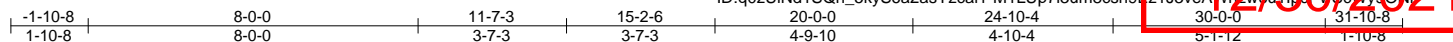


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

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

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 13 11:39:28 2021 Page 1

ID:q0zUjNd1SQn 5kvS6a2asYzcai1-M1LUp7l3um8csn9Fz1J3veA Wpzwf6u1JpcPv ScWv9OIIf



Scale = 1:55.9

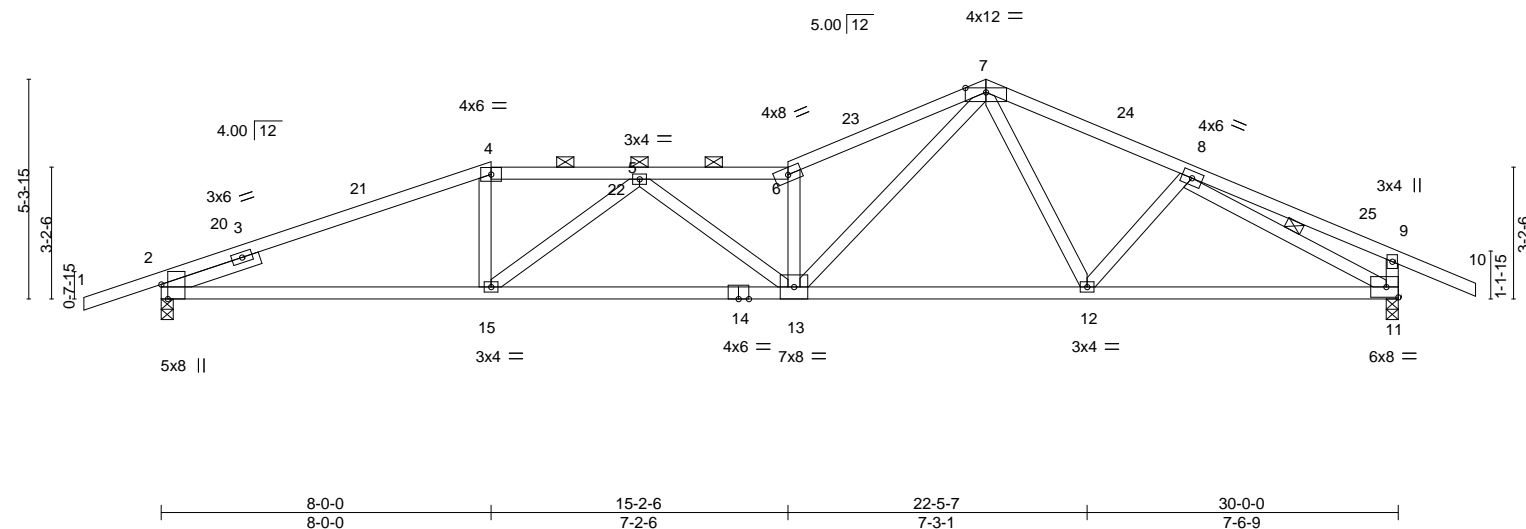


Plate Offsets (X,Y)-- [2:0-4:4,Edge]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.26	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.53	13-15	>681	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.11	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 119 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-11-10 max.): 4-6. Rigid ceiling directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 8-11
SLIDER	Left 2x4 SPF No.2 2-6-0		

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=88(LC 16)  
 Max Uplift 2=-339(LC 8), 11=-227(LC 13)  
 Max Grav 2=1474(LC 1), 11=1486(LC 1)

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

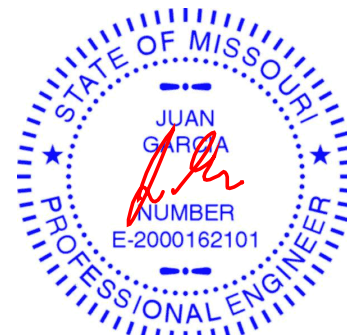
TOP CHORD 2-4=-2857/656, 4-5=-2623/656, 5-6=-3383/810, 6-7=-3651/910, 7-8=-2047/524,  
8-9=-257/96, 9-11=-406/205

BOT CHORD 2-15=-548/2650, 13-15=-678/3228, 12-13=-300/1757, 11-12=-357/1832

WEBS 4-15=-63/599, 6-13=-1638/461, 7-13=-534/2270, 7-12=-52/265, 8-11=-1944/476,  
5-15=-769/211

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 31-10-8 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=339, 11=227.
- 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/TP1 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.



December 14, 2021



**WARNING – Velly design parameters are listed below and included within key reference 1. See MH-1413 (Rev. 3/19/2020) for more details.**  
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the building design 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



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Chesterfield, MO 63017

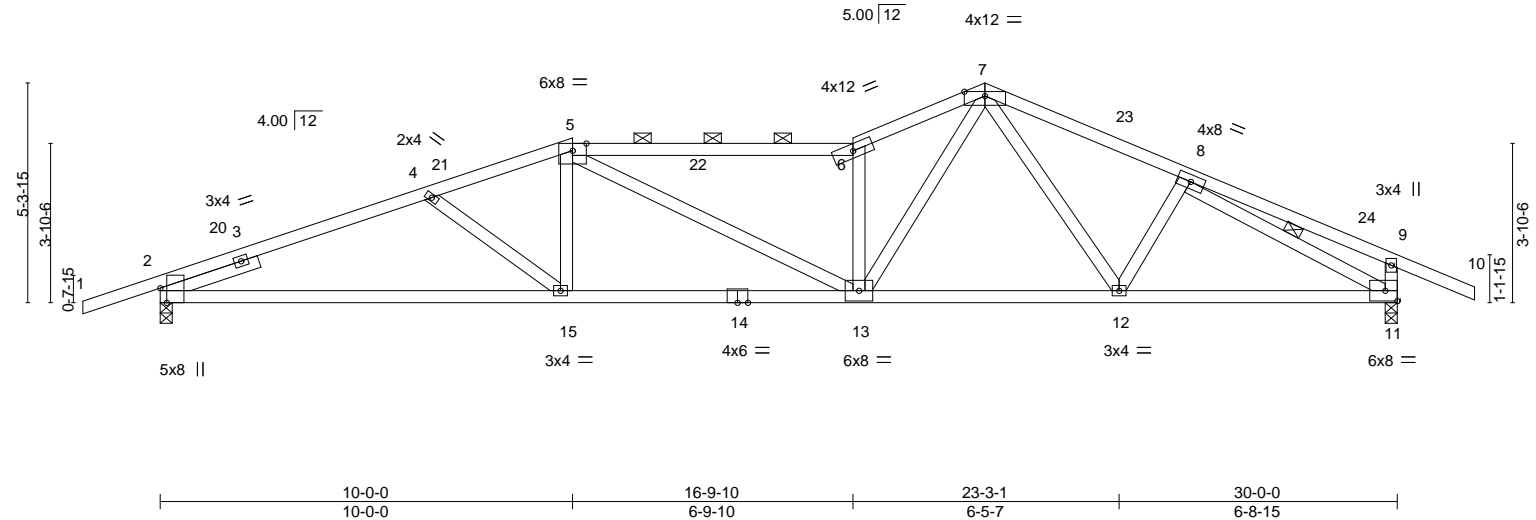
Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	C04	Roof Special	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)	LEE'S SUMMIT, MISSOURI

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ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-rDvt0Tmhf4GTUjkrWlrlRkkpLgAdWwVrrJf8ysQJle

-1-10-8	6-7-0	10-0-0	16-9-10	20-0-0	24-10-4	30-0-0	31-10-8
1-10-8	6-7-0	3-5-0	6-9-10	3-2-6	4-10-4	5-1-12	1-10-8

Scale = 1:55.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.21 13-15 >999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.39 13-15 >914	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.11 11 n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
Weight: 123 lb										FT = 20%	

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
5-6: 2x4 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 2-6-0

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-1-7 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 8-11

**REACTIONS.**

(size) 2=0-3-8, 11=0-3-8  
Max Horz 2=88(LC 16)  
Max Uplift 2=346(LC 8), 11=227(LC 13)  
Max Grav 2=1474(LC 1), 11=1486(LC 1)

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

TOP CHORD 2-4=2818/682, 4-5=2639/635, 5-6=2741/701, 6-7=2976/784, 7-8=2057/541, 9-11=397/205  
BOT CHORD 2-15=582/2612, 13-15=497/2497, 12-13=303/1746, 11-12=358/1842  
WEBS 5-15=0/339, 5-13=90/278, 6-13=1533/459, 7-13=444/1797, 7-12=78/271, 8-11=1970/475

**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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 31-10-8 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=346, 11=227.
- 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.



December 14, 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/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	C05	Roof Special	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)		

RELEASE FOR CONSTRUCTION

12/30/2021

LEE'S SUMMIT, MISSOURI

12/30/2021

12/30/2021

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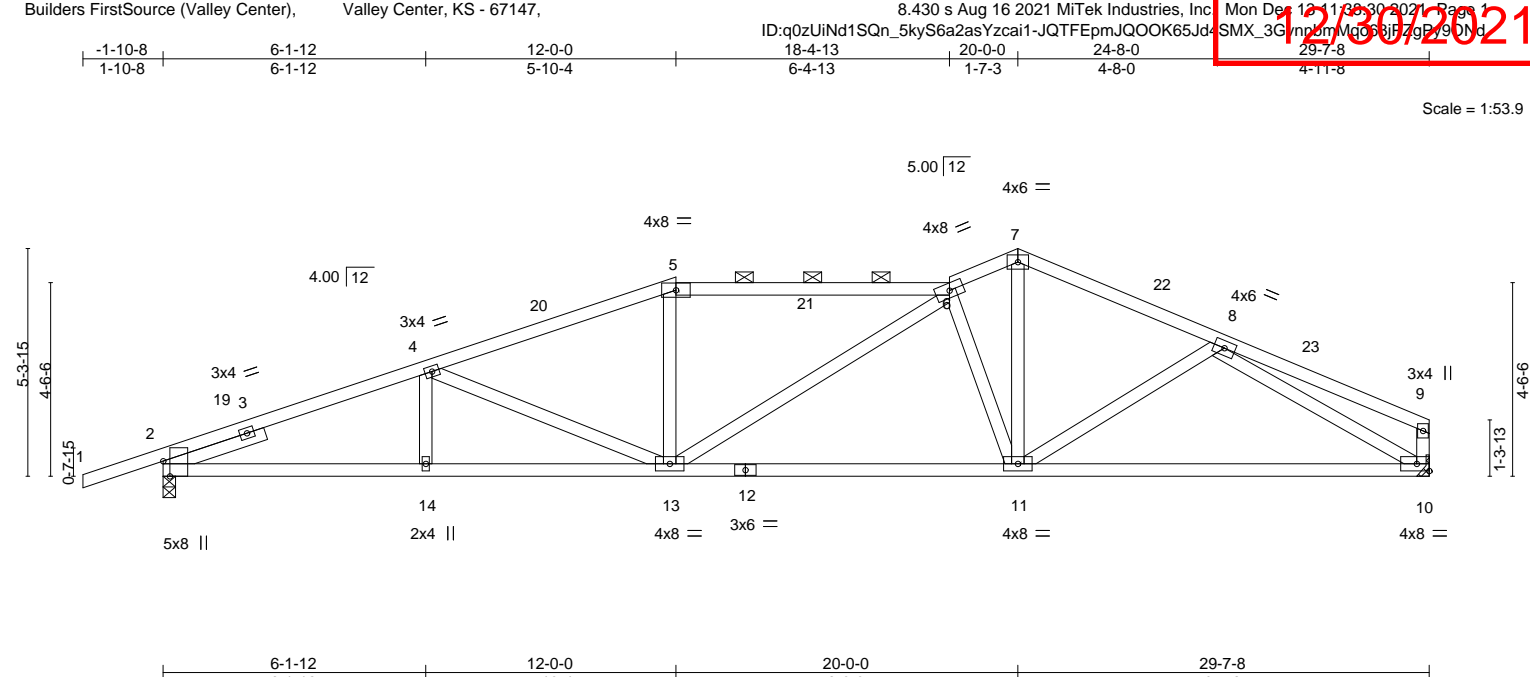


Plate Offsets (X,Y)-- [2:0-4-4,Edge]		6-1-12 6-1-12		12-0-0 5-10-4		20-0-0 8-0-0		29-7-8 9-7-8	
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.19 10-11 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.40 10-11 >883 180		
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.10 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 121 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-10-10 max.): 5-6.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 2-6-0		

<b>REACTIONS.</b>	
(size)	2=0-3-8, 10=Mechanical
Max Horz	2=103(LC 16)
Max Uplift	2=351(LC 8), 10=181(LC 8)
Max Grav	2=1462(LC 1), 10=1322(LC 1)

<b>FORCES.</b>	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-2834/652, 4-5=-2413/598, 5-6=-2249/598, 6-7=-1940/532, 7-8=-1944/495, 8-9=-302/69, 9-10=-256/85
BOT CHORD	2-14=-617/2634, 13-14=-617/2634, 11-13=-462/2160, 10-11=-415/1730
WEBS	4-13=-440/161, 5-13=0/343, 6-11=-1224/368, 7-11=-315/1328, 8-10=-1795/472

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 12-0-0, Exterior(2R) 12-0-0 to 15-0-0, Interior(1) 15-0-0 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 29-5-12 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
  - 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) 2=351, 10=181.
  - 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.



December 14, 2021

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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	CJ01	Diagonal Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:31 2021 Page 1

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12/30/2021



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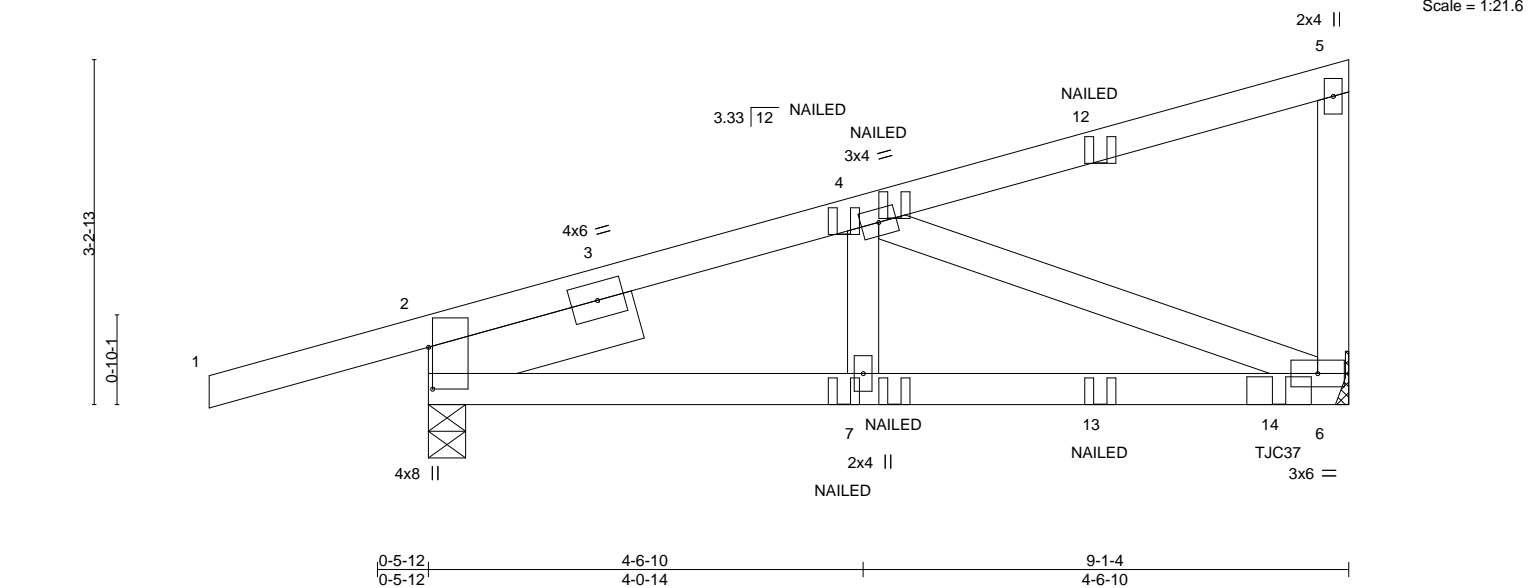


Plate Offsets (X,Y)--	[2:0-4-11,0-0-7]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 1.15		TC 0.38	Vert(LL) -0.03	6-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.45	Vert(CT) -0.07	6-7	>999	180		
BCLL 0.0	Rep Stress Incr NO		WB 0.23	Horz(CT) 0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						
								Weight: 36 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x6 SPF No.2 2-0-8

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-3, 6=Mechanical  
Max Horz 2=130(LC 7)  
Max Uplift 2=186(LC 4), 6=191(LC 8)  
Max Grav 2=566(LC 1), 6=615(LC 1)

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

TOP CHORD 2-4=-608/148  
BOT CHORD 2-7=-169/564, 6-7=-169/564  
WEBS 4-6=-604/191

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) 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) 2=186, 6=191.
- 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 TJC37 (6 nail, 30-90) or equivalent at 8-5-7 from the left end to connect truss(es) to front face of bottom chord, skewed 56.3 deg.to the left, sloping 0.0 deg. down.
- 7) Fill all nail holes where hanger is in contact with lumber.
- 8) "NAILED" indicates 2-12d (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: 1-5=-70, 6-8=-20  
Concentrated Loads (lb)  
Vert: 7=3(F=3, B=-1) 12=-23(B) 13=-17(B) 14=-237(F)



December 14, 2021

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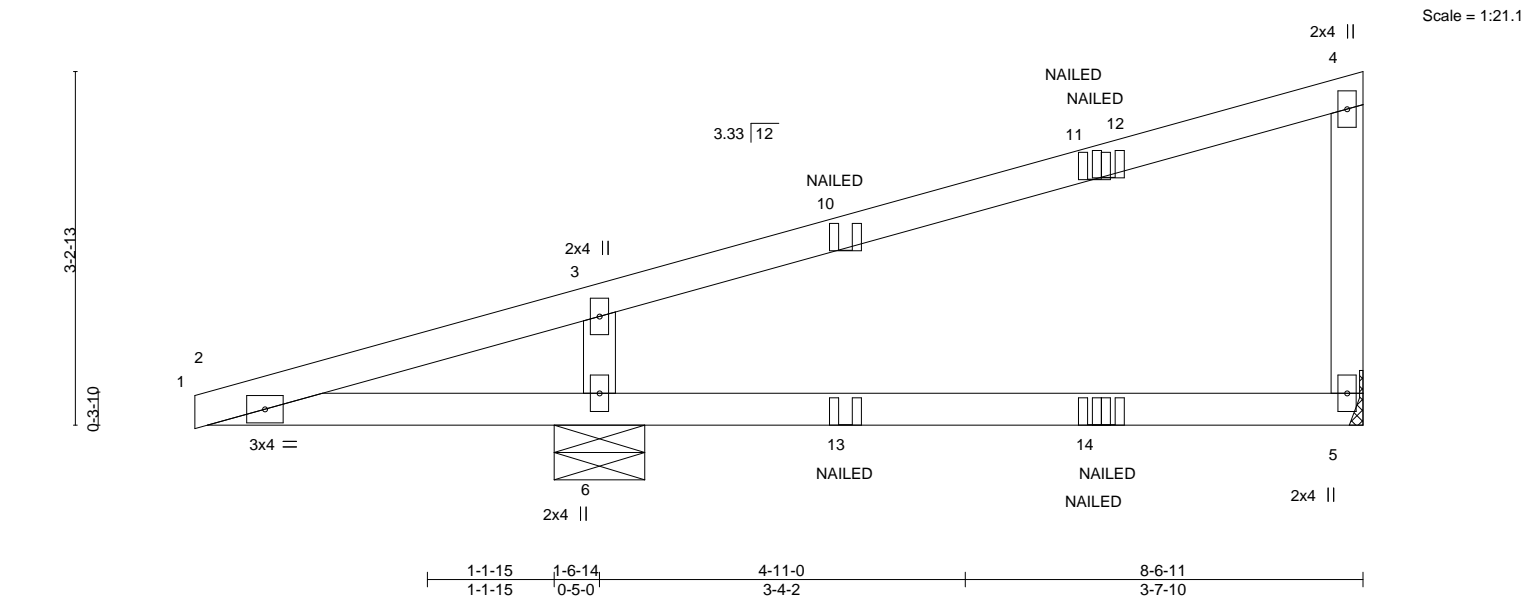
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	CJ02	Diagonal Hip Girder	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:33 2021 Page 1  
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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 0.89	Vert(LL)	-0.12	5-6	>692	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.18	5-6	>465	180	197/144
BCLL 0.0	Rep Stress Incr	NO	WB 0.07	Horz(CT)	-0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						
									Weight: 29 lb FT = 20%

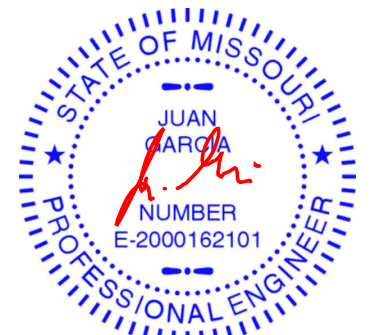
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 5=Mechanical, 6=0-9-15  
Max Horz 6=111(LC 7)  
Max Uplift 5=72(LC 5), 6=245(LC 4)  
Max Grav 5=217(LC 1), 6=697(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-6=-516/254

**NOTES-**  
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60  
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
3) 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) 5 except (jt=lb) 6=245.  
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: 1-2=-20, 2-4=-70, 5-7=-20  
Concentrated Loads (lb)  
Vert: 10=37(F) 11=-5(B) 14=-6(F=8, B=-14)

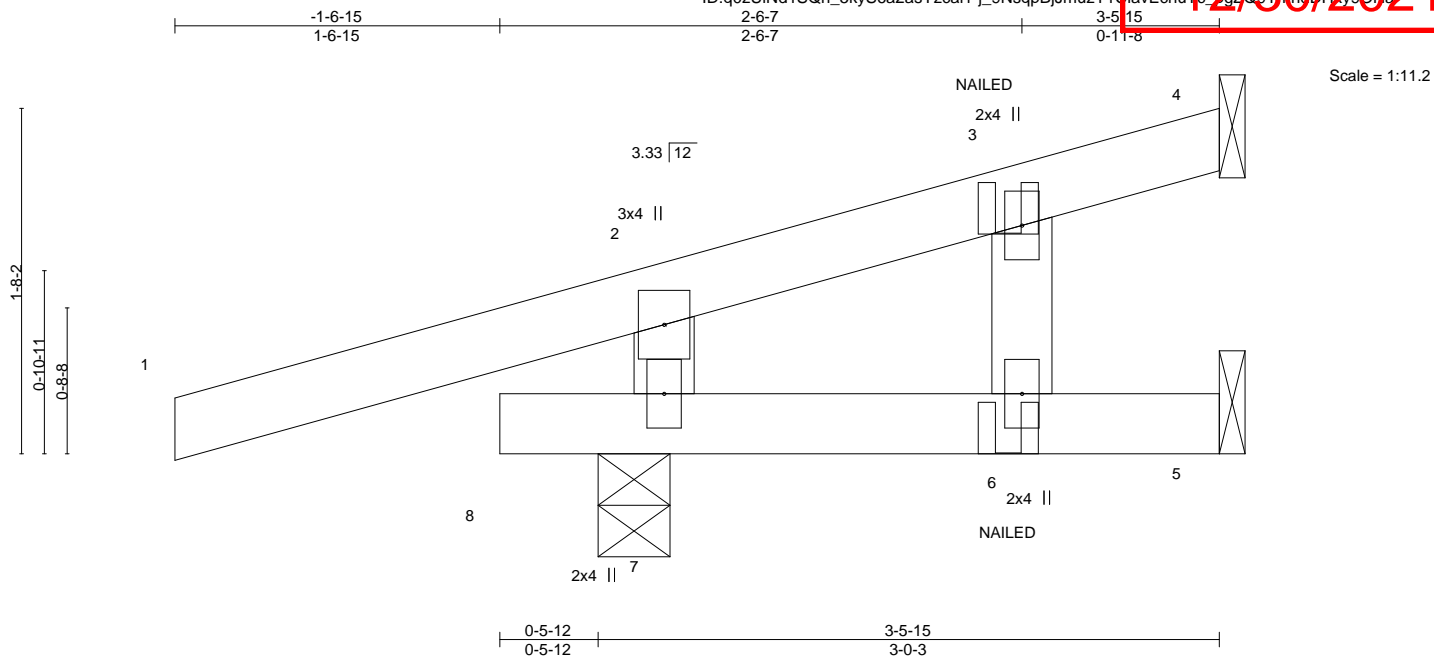


December 14, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	CJ03	Jack-Open Girder	2	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI
Job Reference (optional)						

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:33 2021 Page 1  
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12/30/2021



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 0.45	Vert(LL)	0.00	6	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	0.00	6-7	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.01	Horz(CT)	-0.01	4	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  
 WEBS 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.**

(size) 4=Mechanical, 5=Mechanical, 7=0-4-3  
 Max Horz 7=55(LC 4)  
 Max Uplift 4=19(LC 8), 5=3(LC 9), 7=152(LC 4)  
 Max Grav 4=37(LC 1), 5=33(LC 21), 7=377(LC 1)

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

TOP CHORD 2-7=-312/162

**NOTES-**

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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) 4, 5 except (jt=lb) 7=152.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
 Vert: 1-2=-70, 2-4=-70, 5-8=-20
- Concentrated Loads (lb)  
 Vert: 6=4(B)



December 14, 2021

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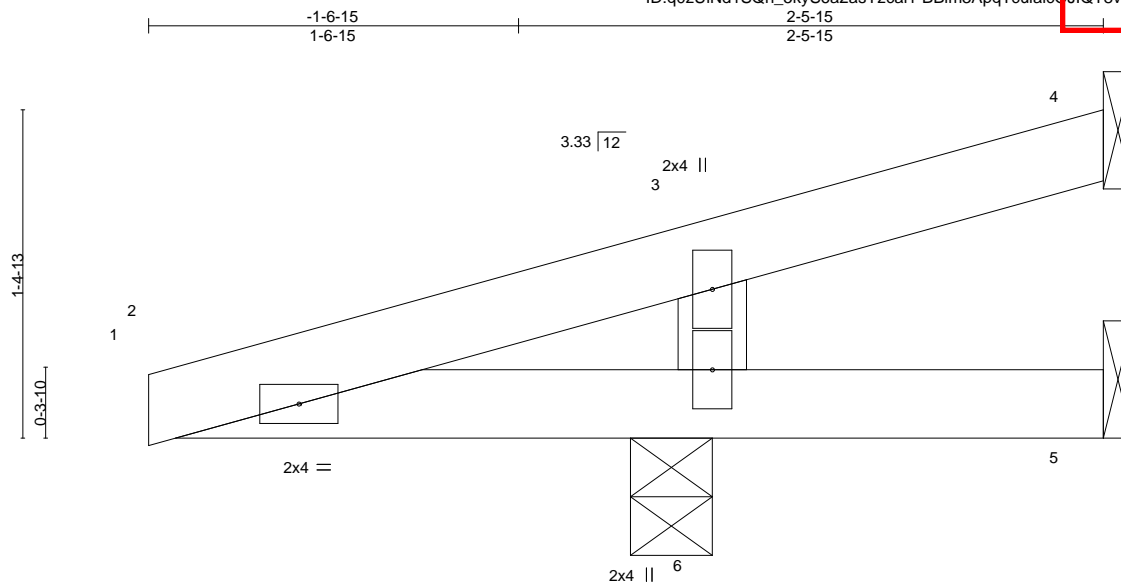
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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	CJ05	Jack-Open	1	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 12 11:36:34 2021 Page 1						149339770
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Job Reference (optional)						



Scale = 1:9.8

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 0.26	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	0.00	5-6	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.02	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 10 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-5-15 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=Mechanical, 5=Mechanical, 6=0-4-3  
 Max Horz 6=45(LC 8)  
 Max Uplift 4=32(LC 3), 5=57(LC 1), 6=-164(LC 8)  
 Max Grav 4=5(LC 8), 5=33(LC 8), 6=431(LC 1)

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

WEBS 3-6=-253/370

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; 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) 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 connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 6=164.
- 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.



December 14, 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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	CJ06	Jack-Open	1	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)	LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:35:25 2021 Page 1  
ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-fNG8HWqSEw0cCsBat?yih6ar5cvP1KK1264Mm9DNy

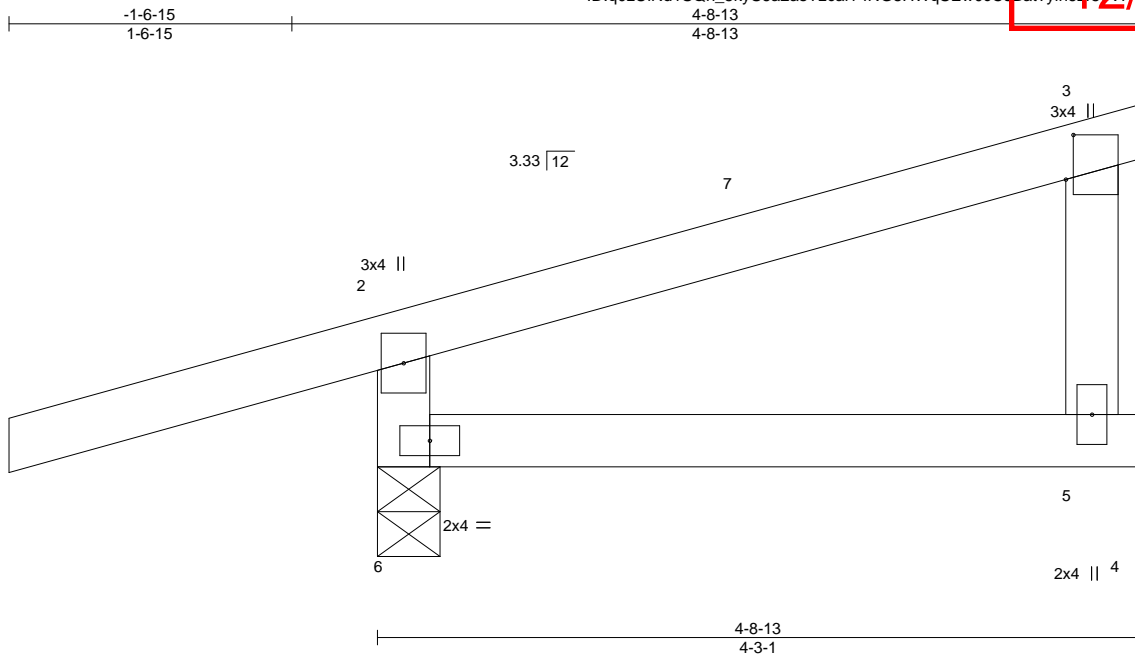


Plate Offsets (X,Y)--	[3:0-3-0,0-0-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	-0.01 5-6 >999 240
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.02 5-6 >999 180
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01 3 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS		
					<b>PLATES</b> MT20 <b>GRIP</b> 197/144
					Weight: 14 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

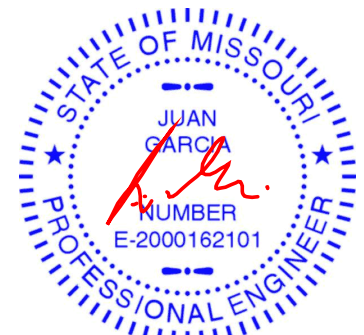
(size) 6=0-4-3, 5=Mechanical, 3=Mechanical  
Max Horz 6=67(LC 8)  
Max Uplift 6=145(LC 8), 3=49(LC 12)  
Max Grav 6=371(LC 1), 5=79(LC 3), 3=98(LC 1)

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

TOP CHORD 2-6=-324/338

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-6-15 to 2-8-0, Exterior(2R) 2-8-0 to 4-5-9 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.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 6=145.
- 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.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



December 14, 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**

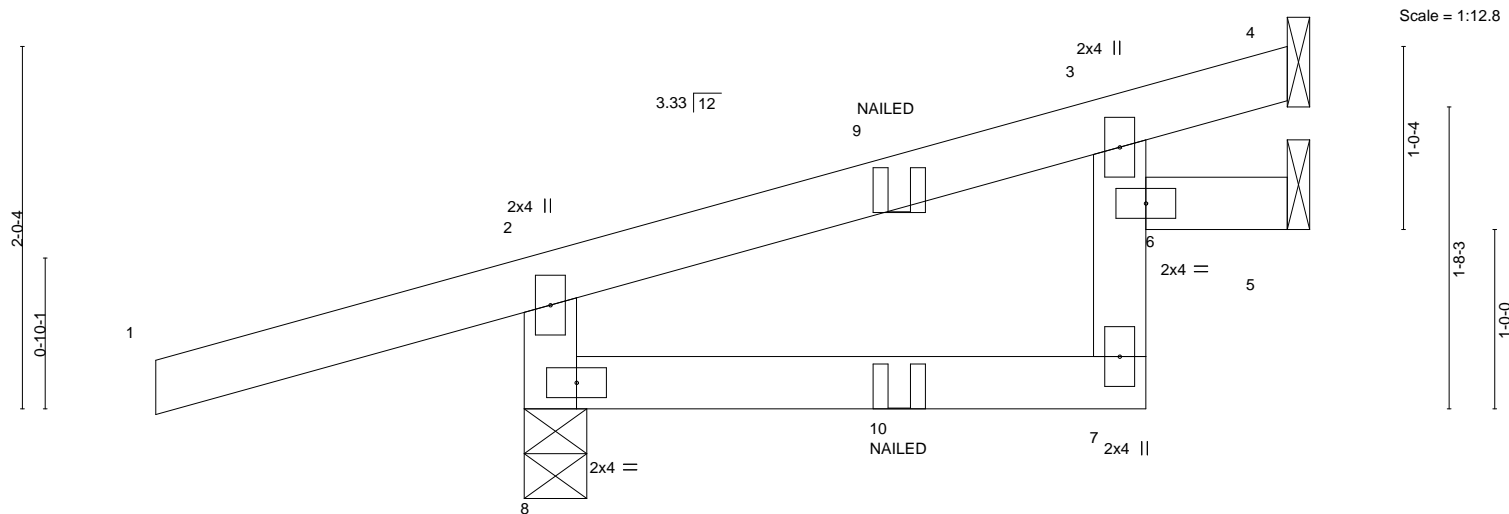


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO
3012161	CJ07	Jack-Open Girder	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:36 2021 Page 1
Job Reference (optional)						AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-7ZqWUstr4?E8Tq0mRjTxDKW0vCr0mmXSSu2790NX

-1-6-15	3-11-5	4-8-13
1-6-15	3-11-5	0-9-7



Scale = 1:12.8

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	in (loc)	l/defl	L/d	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(LL)	-0.01 6 >999	240			
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Vert(CT)	-0.01 6 >999	180			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR		Horz(CT)	-0.01 4 n/a	n/a			
										Weight: 14 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-8-13 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 8=0-4-3, 4=Mechanical, 5=Mechanical  
 Max Horz 8=69(LC 4)  
 Max Uplift 8=147(LC 4), 4=-24(LC 4), 5=-19(LC 8)  
 Max Grav 8=376(LC 1), 4=80(LC 1), 5=59(LC 3)

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

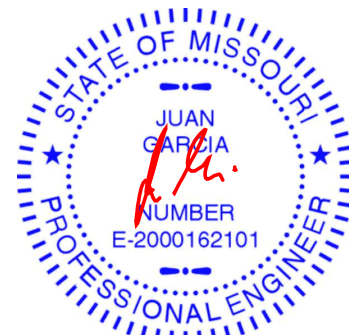
TOP CHORD 2-8=-334/157

**NOTES-**

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 8=147.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20  
 Concentrated Loads (lb)  
 Vert: 10=4(F)



December 14, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	CJ08	Diagonal Hip Girder	1	1	Job Reference (optional)	4993973

Builders FirstSource (Valley Center),

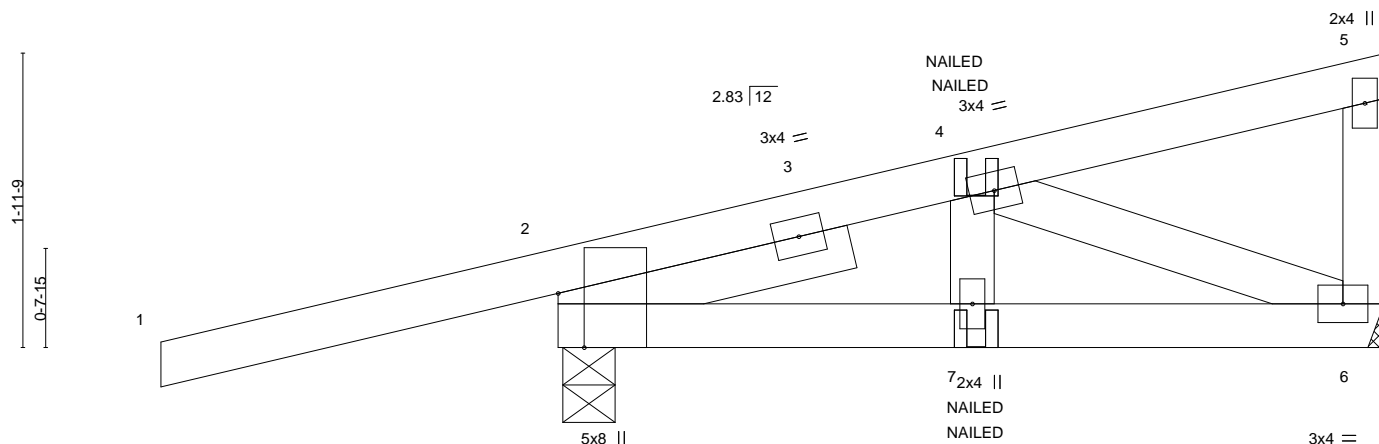
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 12 11:36:37 2021 Page 1

ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-cmOuiCsimXHKR9Lz\_Q\_AmX28nbMVEa8b6CQVj3dNtV

-2-7-13	2-9-3	5-6-6
2-7-13	2-9-3	2-9-3

Scale = 1:15.4



0-0-6	2-9-3	5-6-6
0-0-6	2-8-13	2-9-3

Plate Offsets (X,Y)-- [2:0-4-5,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 0.57	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.01	6-7	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 23 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 2-0-0

**BRACING-**

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

**REACTIONS.**

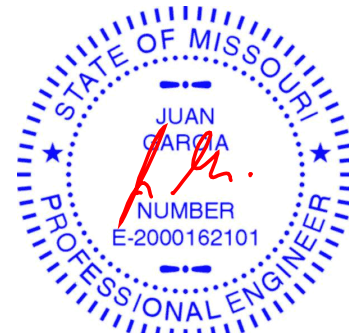
(size) 2=0-4-3, 6=Mechanical  
 Max Horz 2=77(LC 7)  
 Max Uplift 2=188(LC 4), 6=42(LC 8)  
 Max Grav 2=480(LC 1), 6=203(LC 1)

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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 except (jt=lb) 2=188.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-70, 6-8=-20  
 Concentrated Loads (lb)  
 Vert: 7=-13(B)



December 14, 2021

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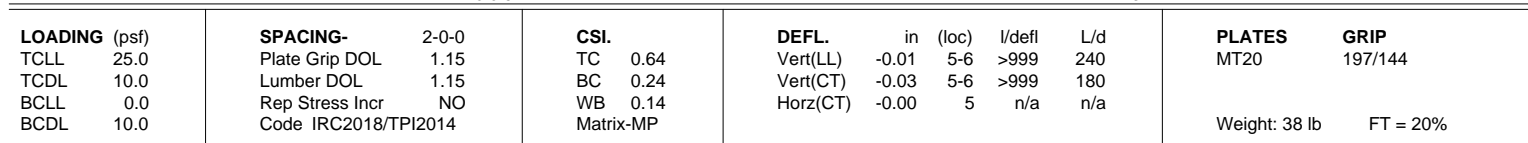
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 12 11:39:39 2021 Page 1  
ID: q0ZUInD1SQn\_5kyS6a2asYzcai1-Y8Wf7utv9X2hTV16r0erv738Pm26T8id4XVNV9ONU



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

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=0-4-3, 5=Mechanical  
Max Horz 7=156(LC 5)  
Max Uplift 7=-225(LC 4), 5=-113(LC 5)  
Max Grav 7=598(LC 21), 5=369(LC 1)

TOP CHORD 2-7=-572/235, 2-3=-426/106  
BOT CHORD 5-6=-162/357  
WEBS 2-6=-80/366, 3-5=-402/152

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) 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=225, 5=113.
- 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).

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-70, 2-4=-70, 5-7=-20  
Concentrated Loads (lb)  
Vert: 8=71(B) 9=-53(F) 10=-3(F) 11=-39(F=-33, B=-6)



December 14, 2021



**WARNING – Velly design parameters are listed below and included within key reference 1. See MH-1413 (Rev. 3/19/2020) for more details.**  
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	CJ11	Diagonal Hip Girder	2	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:35:40 2021 Page 1  
 ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-0L41KEub3Sfvid4YgYXtOAgglp7fibd1NG561ay9DmT

-1-4-13 3-9-11 7-2-8  
 1-4-13 3-9-11 3-4-13

Scale: 3/4"=1'

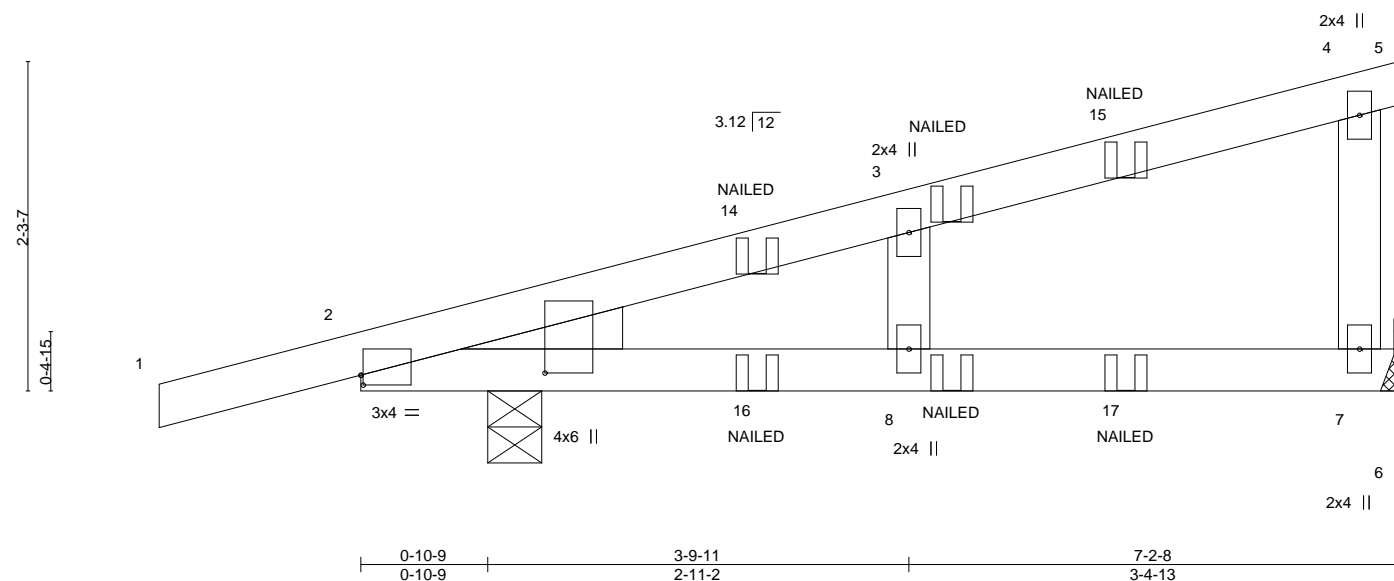


Plate Offsets (X,Y)--		[2:0-0-3,0-0-13], [2:0-0-3,1-3-5]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.07	8	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.14	8	>603		
BCLL 0.0	Rep Stress Incr	NO	WB 0.02	Horz(CT)	0.01	2	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 23 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 7=Mechanical, 2=0-4-8  
 Max Horz 2=96(LC 4)  
 Max Uplift 7=72(LC 8), 2=144(LC 4)  
 Max Grav 7=264(LC 1), 2=484(LC 1)

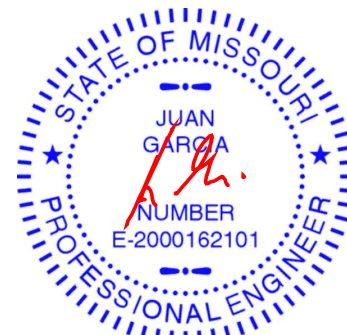
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) 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=144.
- 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 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=-70, 4-5=-20, 6-9=-20  
 Concentrated Loads (lb)  
 Vert: 8=11(F) 15=-5(B) 16=-3(B) 17=-17(B)



December 14, 2021

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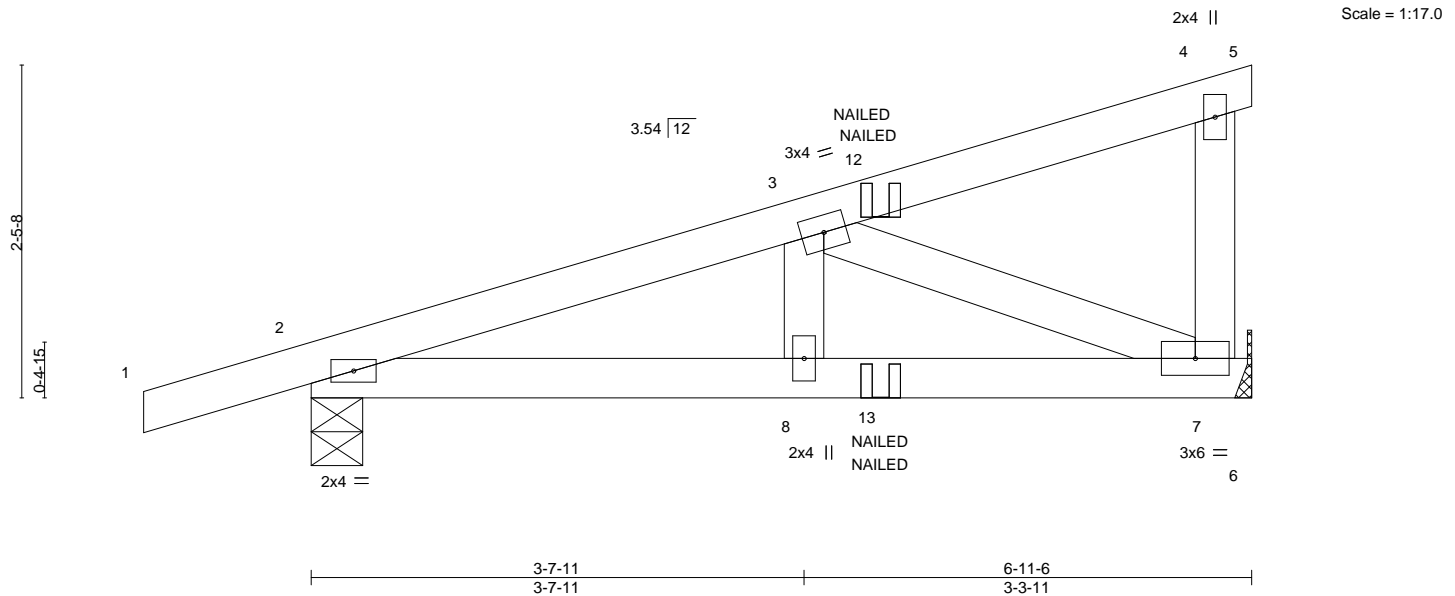


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	CJ12	Diagonal Hip Girder	2	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc	LEE'S SUMMIT, MISSOURI
						Mon Dec 14 11:36:41 2021 Page 1	
						Job Reference (optional)	

1-2-14 3-7-11 6-11-6  
1-2-14 3-7-11 3-3-11

12/30/2021



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 0.12	Vert(LL)	-0.01	8	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.01	8	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.11	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 24 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-9, 7=Mechanical  
Max Horz 2=99(LC 7)  
Max Uplift 2=118(LC 4), 7=76(LC 8)  
Max Grav 2=402(LC 1), 7=316(LC 1)

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

TOP CHORD 2-3=-528/94  
BOT CHORD 2-8=-104/481, 7-8=-104/481  
WEBS 3-7=-516/132

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) 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=118.
- 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=-70, 4-5=-20, 6-9=-20  
Concentrated Loads (lb)  
Vert: 13=-20(F=-10, B=-10)



December 14, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	D01	Common	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)	LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:42 2021 Page 1  
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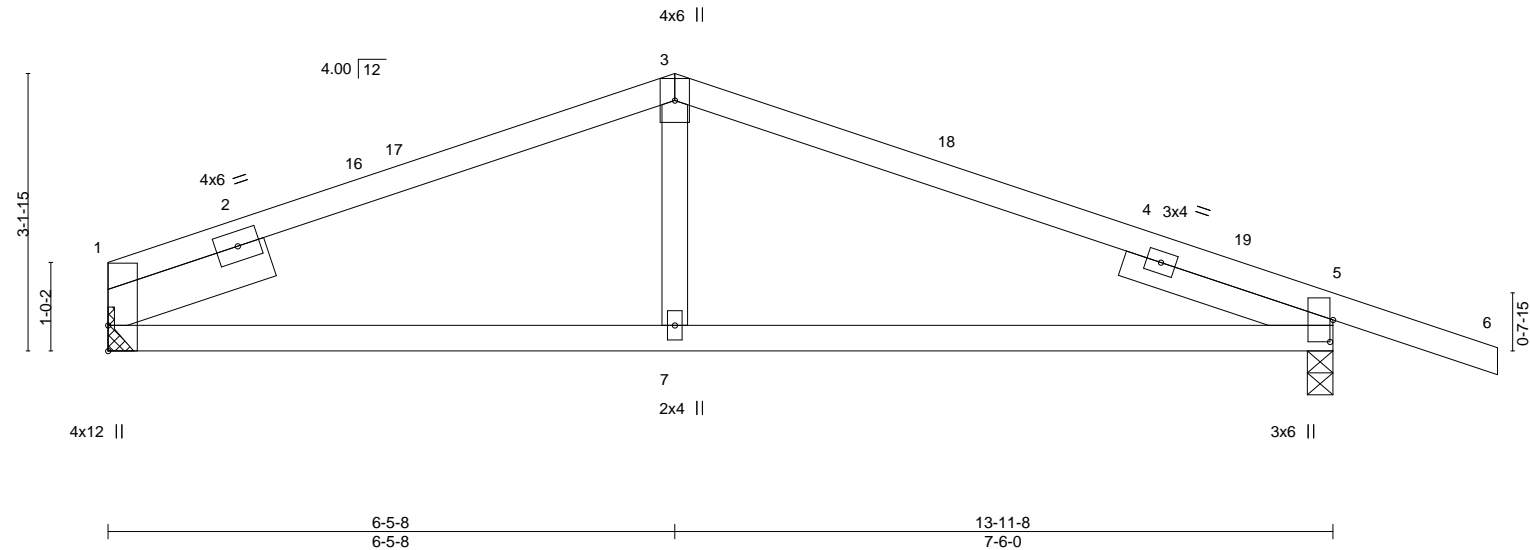


Plate Offsets (X,Y)-- [5:0-3-0,0-0-7]		6-5-8 6-5-8		13-11-8 7-6-0	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.10 7-14 >999 240
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.18 7-14 >957 180
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.04 1 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS		
				<b>PLATES</b>	<b>GRIP</b>
				MT20	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  
SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-6-0

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

**REACTIONS.** (size) 1=Mechanical, 5=0-3-8  
Max Horz 5=-76(LC 9)  
Max Uplift 1=-112(LC 8), 5=-204(LC 9)  
Max Grav 1=619(LC 1), 5=768(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-924/347, 3-5=-871/324  
BOT CHORD 1-7=-258/827, 5-7=-258/827  
WEBS 3-7=0/269

#### 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=25ft; 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 6-5-8, Exterior(2R) 6-5-8 to 9-5-8, Interior(1) 9-5-8 to 15-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) except (jt=lb) 1=112, 5=204.
- 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.



December 14, 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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	D02	Hip Girder	1	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)	LEE'S SUMMIT, MISSOURI

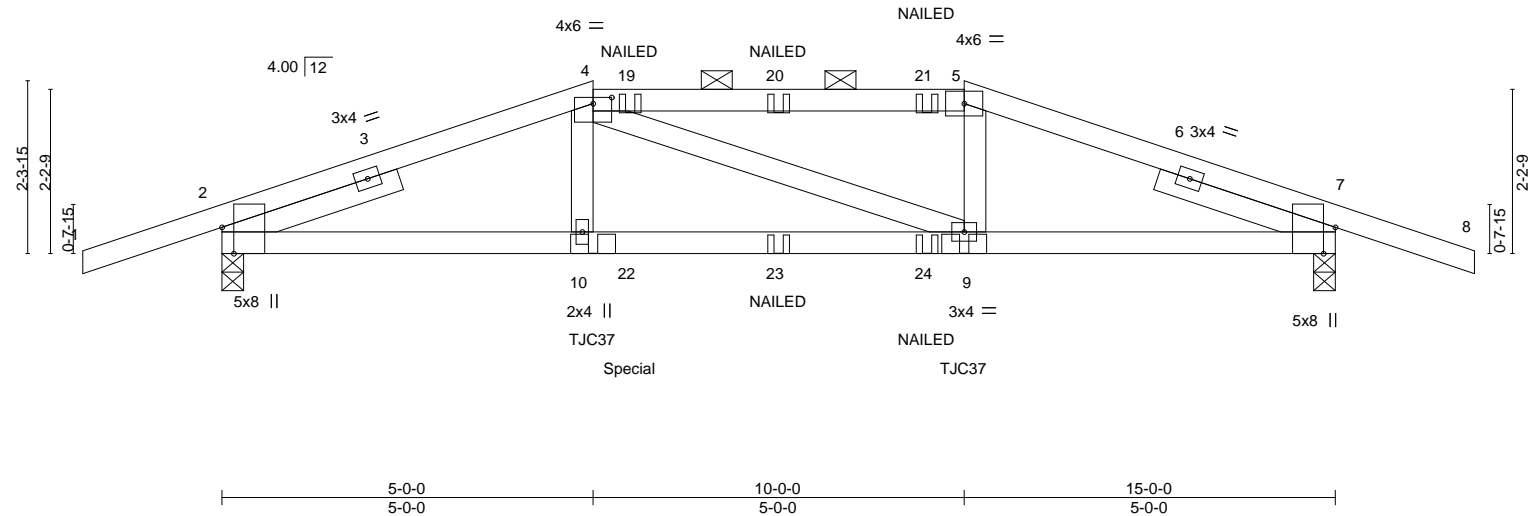
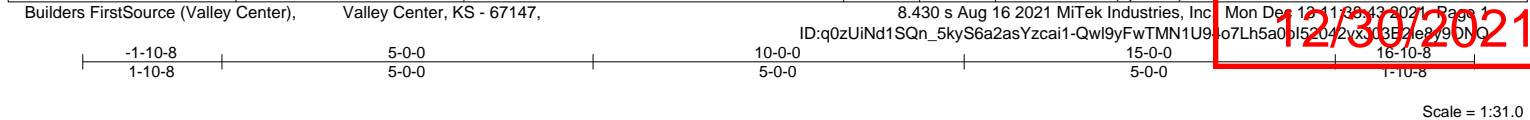


Plate Offsets (X,Y)--		[2:0-4-4,Edge], [4:0-3-0,0-1-0], [7:0-4-4,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.77	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.77	Vert(LL) -0.12 9-10 >999 240
BCLL 0.0	Rep Stress Incr NO	WB 0.09	Vert(CT) -0.24 9-10 >740 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.05 7 n/a n/a
		<b>PLATES</b> MT20	
		<b>GRIP</b> 197/144	
		Weight: 55 lb FT = 20%	

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

<b>REACTIONS.</b>	(size) 2=0-3-8, 7=0-3-8
	Max Horz 2=41(LC 4)
	Max Uplift 2=-349(LC 4), 7=-349(LC 5)
	Max Grav 2=1201(LC 1), 7=1201(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-2248/560, 4-5=-2076/547, 5-7=-2248/560
BOT CHORD	2-10=-489/2101, 9-10=-488/2076, 7-9=-465/2101
WEBS	4-10=-14/368, 5-9=-26/369

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=349, 7=349.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Use Simpson Strong-Tie TJC37 (6 nail, 30-90) or equivalent at 5-0-0 from the left end to connect truss(es) to front face of bottom chord, skewed 51.3 deg.to the left, sloping 0.0 deg. down.
  - Use Simpson Strong-Tie TJC37 (6 nail 90-150) or equivalent at 10-0-0 from the left end to connect truss(es) to front face of bottom chord, skewed 51.3 deg.to the right, sloping 0.0 deg. down.
  - Fill all nail holes where hanger is in contact with lumber.
  - "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) 42 lb down at 5-6-0 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).

<b>LOAD CASE(S)</b>	Standard
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Continued on page 2



December 14,2021

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**MiTek®**

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	D02	Hip Girder	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

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o7Lh5a0bl52042vx103E2e879DNC

12/30/2021

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 4-5=-70, 5-8=-70, 11-15=-20

Concentrated Loads (lb)

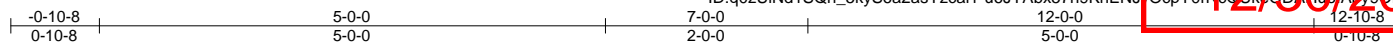
Vert: 10=-232(F) 9=-232(F) 19=-68(F) 20=-68(F) 21=-68(F) 22=-40(F) 23=-40(F) 24=-40(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	E01	Hip Girder	1	1	Job Reference (optional)	149339780

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

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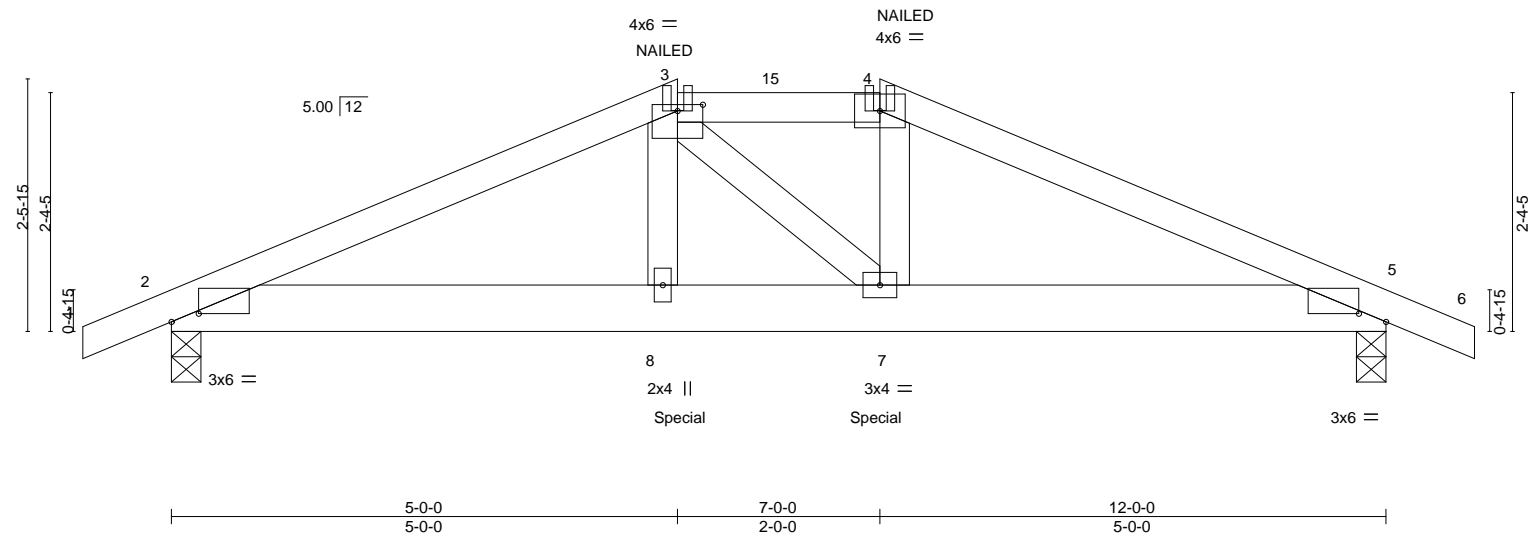


Plate Offsets (X,Y)--		[2:0-3-4,0-1-0], [3:0-3-0,0-0-12], [5:0-3-4,0-0-15]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.34	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.48	Vert(LL) -0.04 8 >999 240
BCLL 0.0	Rep Stress Incr NO	WB 0.11	Vert(CT) -0.07 8 >999 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.02 5 n/a n/a
		<b>PLATES</b> MT20	
		<b>GRIP</b> 197/144	
		Weight: 45 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 3-10-6 oc purlins, except  
2-0-0 oc purlins (4-4-15 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 5=0-3-8  
Max Horz 2=42(LC 34)  
Max Uplift 2=242(LC 8), 5=242(LC 9)  
Max Grav 2=1016(LC 1), 5=1016(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1987/474, 3-4=-1762/459, 4-5=-1988/474  
BOT CHORD 2-8=-410/1792, 7-8=-404/1761, 5-7=-374/1793  
WEBS 3-8=-78/454, 4-7=-76/450

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=242, 5=242.
- 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) 333 lb down and 106 lb up at 5-0-0, and 333 lb down and 106 lb up at 6-11-4 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=-70, 3-4=-70, 4-6=-70, 9-12=-20  
Concentrated Loads (lb)  
Vert: 4=-82(B) 8=-333(B) 7=-333(B) 3=-82(B)



December 14, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	E02	Common	2	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc	Mon Dec 14 11:35:46 2021 Page 1
						Job Reference (optional)	LEE'S SUMMIT, MISSOURI
						ID:q0zUiNd1SQn_5kyS6a2asYzcai1-rVRibHzLfIP20YXj0peHdRvje2BF6IXtCHPFZYSQJIN	12/30/2021

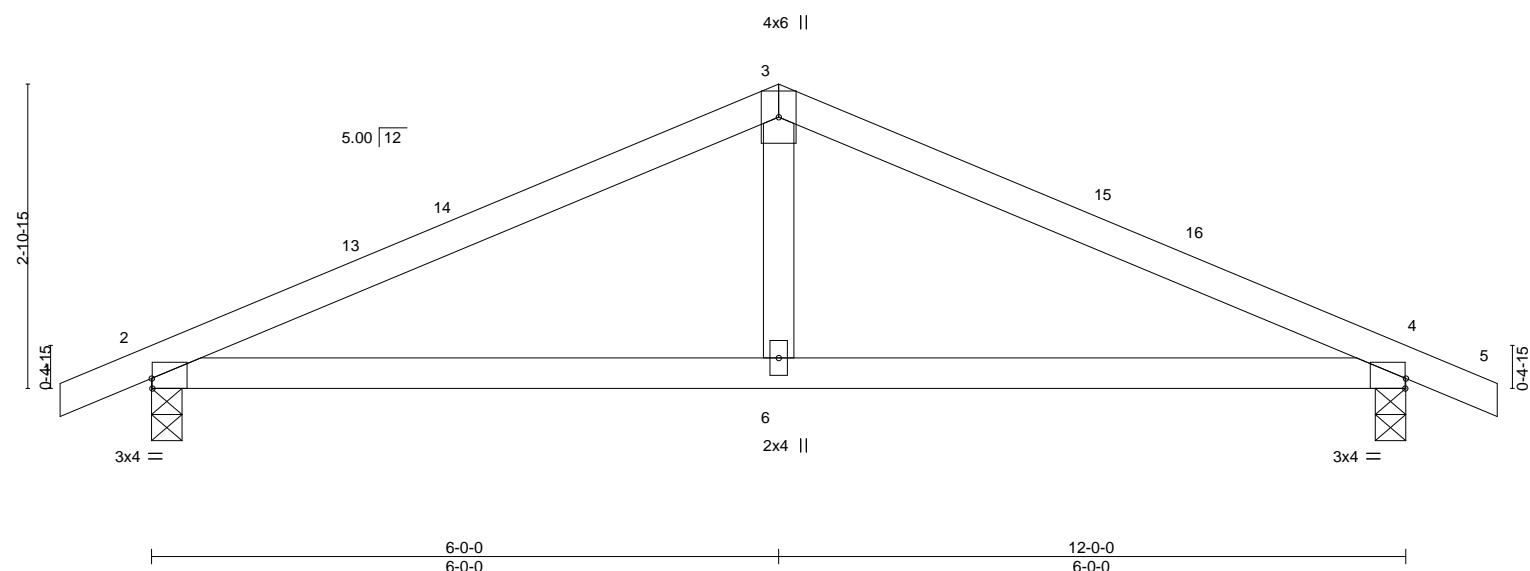
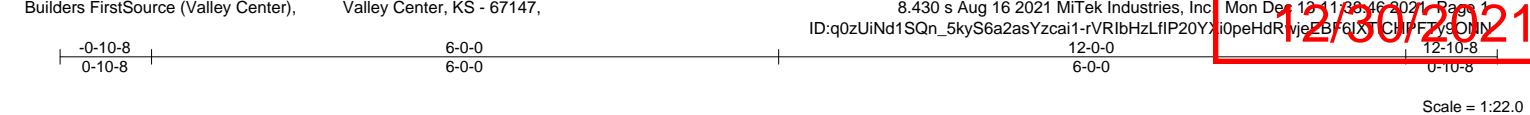


Plate Offsets (X,Y)-- [2:0-0-1,Edge], [4:0-0-1,Edge]		6-0-0		12-0-0		6-0-0	
LOADING (psf)		SPACING-		CSI.		DEFL.	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	in (loc)	l/defl
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(LL)	L/d
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Vert(CT)	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS		Horz(CT)	
						PLATES	
						MT20	
						GRIP	
						197/144	
						Weight: 34 lb	
						FT = 20%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		

<b>REACTIONS.</b>	
(size)	2=0-3-8, 4=0-3-8
Max Horz	2=-50(LC 13)
Max Uplift	2=-112(LC 12), 4=-112(LC 13)
Max Grav	2=601(LC 1), 4=601(LC 1)

<b>FORCES.</b>	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-844/317, 3-4=-844/317
BOT CHORD	2-6=-188/717, 4-6=-188/717
WEBS	3-6=0/265

- 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=25ft; 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 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-10-8 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) 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) except (jt=lb) 2=112, 4=112.
  - 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.



December 14, 2021

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

**MiTek®**

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	F01	Jack-Open	1	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)	LEE'S SUMMIT, MISSOURI

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12/30/2021

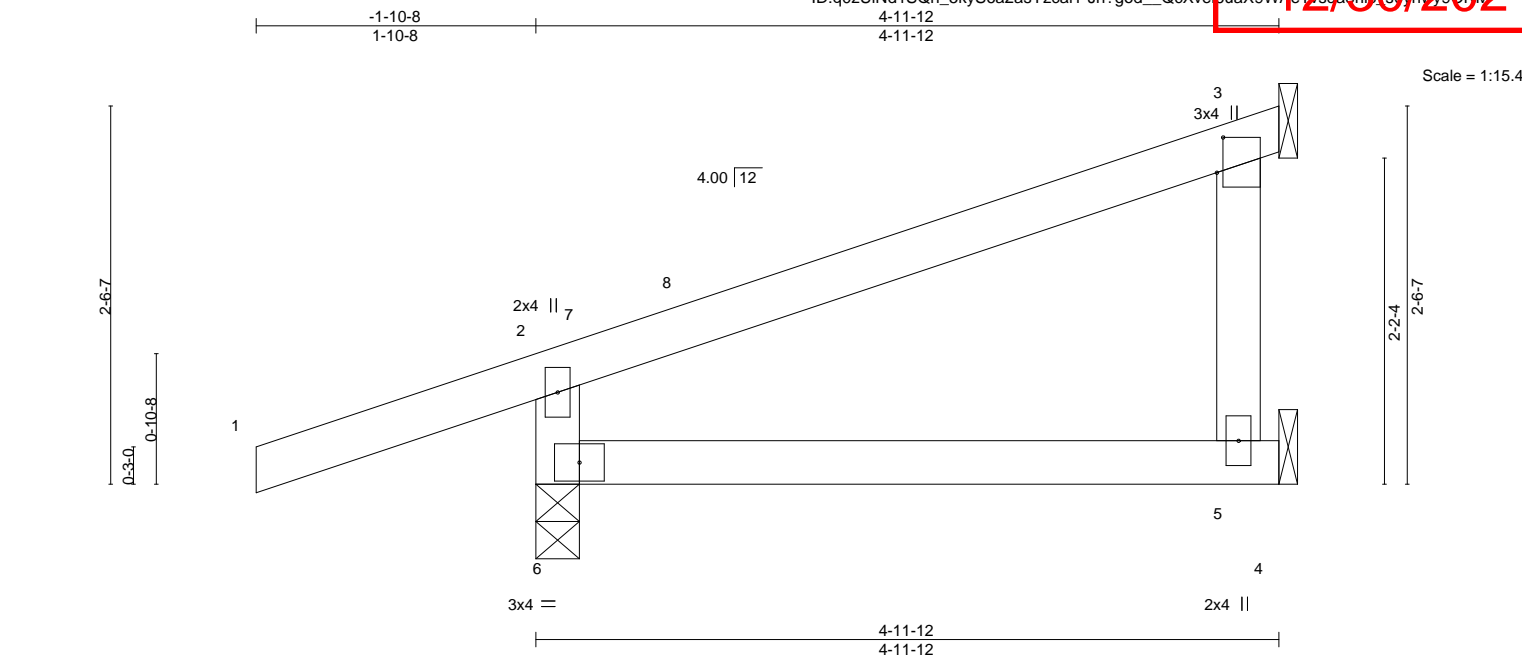


Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.02	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.04	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 17 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

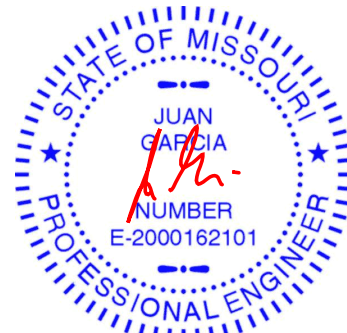
(size) 5=Mechanical, 3=Mechanical, 6=0-3-8  
 Max Horz 6=88(LC 8)  
 Max Uplift 3=65(LC 12), 6=131(LC 8)  
 Max Grav 5=94(LC 3), 3=130(LC 1), 6=378(LC 1)

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

TOP CHORD 2-6=-331/254

**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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-8-8 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) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 6=131.
- 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



December 14, 2021

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

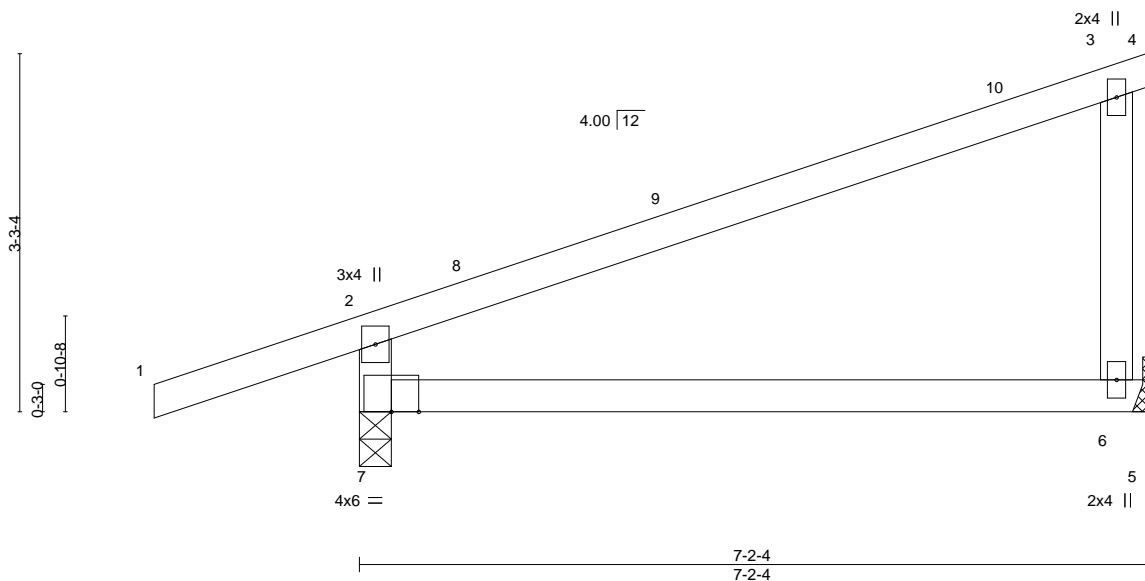
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	F02	Jack-Partial	11	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:35:48 2021 Page 1  
ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-ntZZ2?z\_cAvfmGsh43Egljs??C1s7aCJICWmYUM9DNL



Scale = 1:21.0

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 0.60	Vert(LL)	-0.10 6-7	>853	240	MT20	197/144
BCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.21 6-7	>394	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 23 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

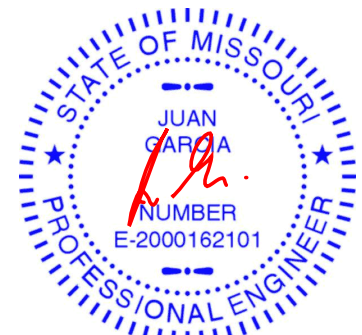
(size) 6=Mechanical, 7=0-3-8  
Max Horz 7=121(LC 8)  
Max Uplift 6=-87(LC 8), 7=-141(LC 8)  
Max Grav 6=295(LC 1), 7=467(LC 1)

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

TOP CHORD 2-7=-405/281

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 7-2-4 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) 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) 7 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) 6 except (jt=lb) 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) 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.



December 14, 2021

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

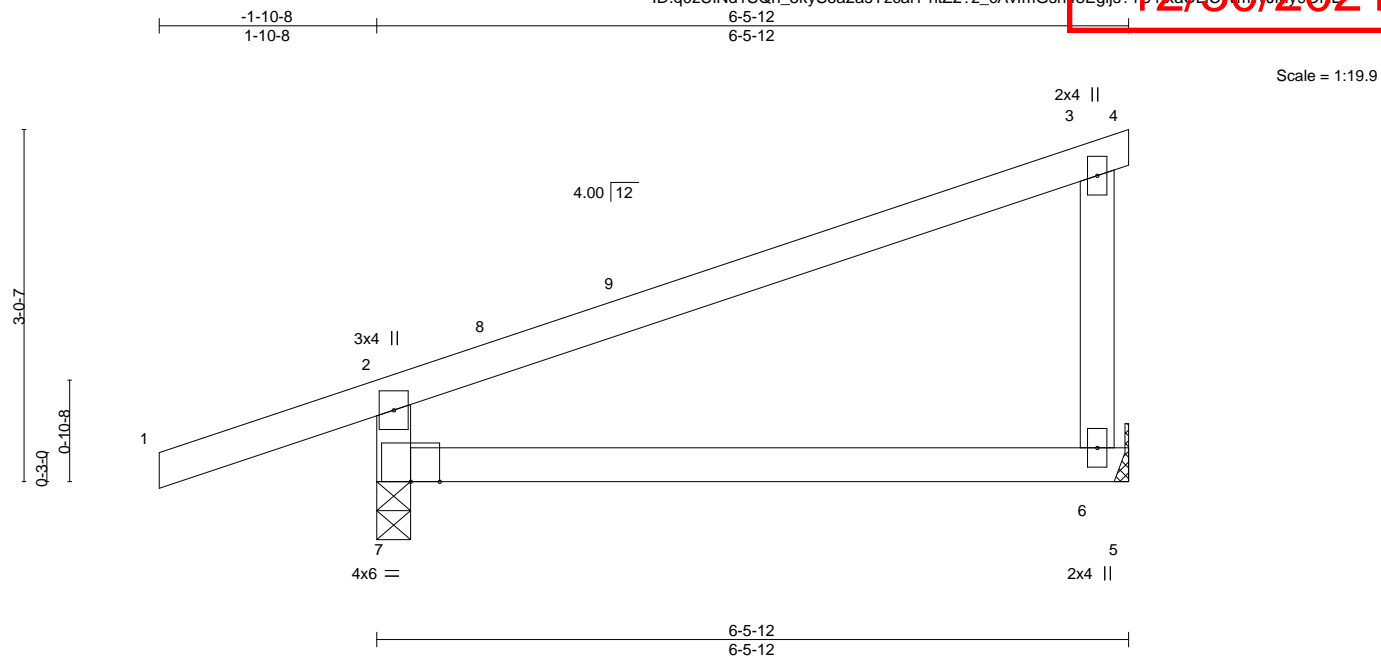
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	F03	Jack-Open	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)	LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:35:48 2021 Page 1  
 ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-ntZ2?z\_cAvfmGsh8Egljs?1U1kaCUCm7UM9DNL



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 0.47	Vert(LL)	-0.06	6-7	>999	240	MT20	197/144
BCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.13	6-7	>550	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00		n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 21 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 6=Mechanical, 7=0-3-8  
 Max Horz 7=112(LC 8)  
 Max Uplift 6=79(LC 12), 7=137(LC 8)  
 Max Grav 6=260(LC 1), 7=438(LC 1)

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

TOP CHORD 2-7=-381/273

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-5-12 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) 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 7=137.
- 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.



December 14, 2021

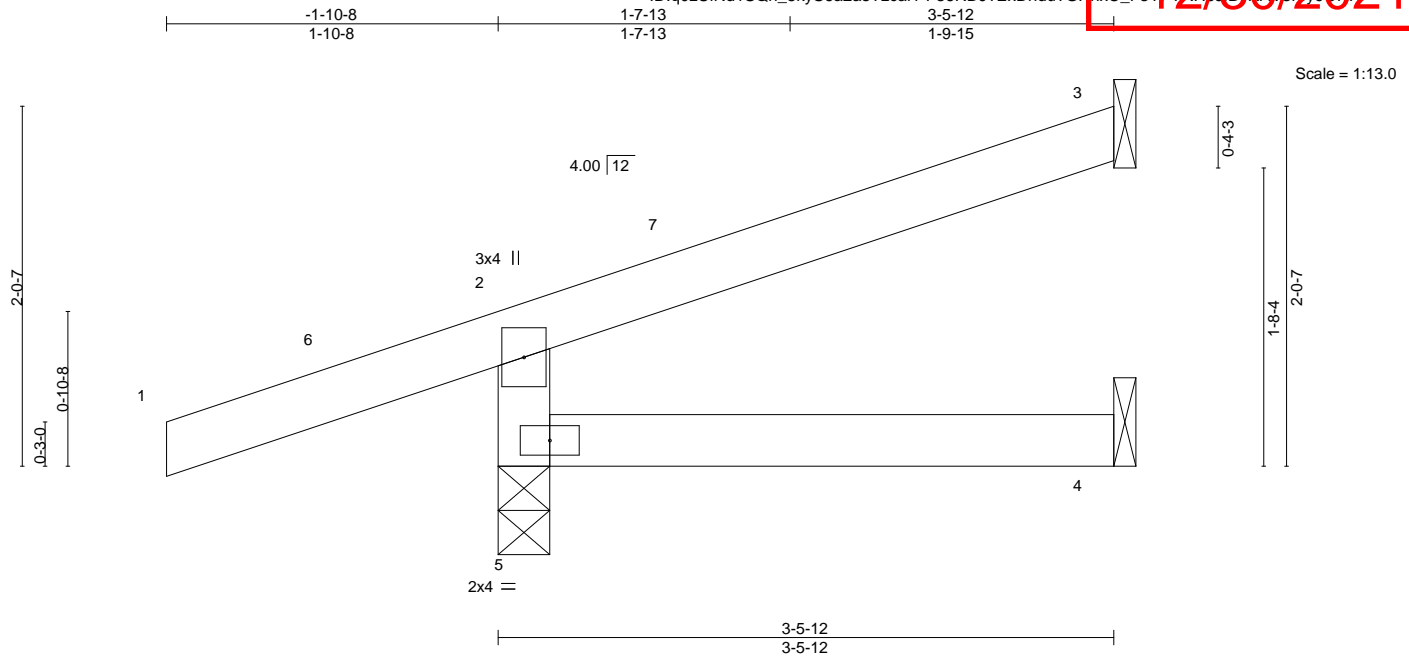
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	F04	Jack-Open	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc	LEE'S SUMMIT, MISSOURI
						Mon Dec 12 11:35:49 2021 Page 1	
						ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-F36RDJ?ExDndu?GhnxC_F3YFYR.H6JIB1RA/Bro99DNK	



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)	-0.01	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 11 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

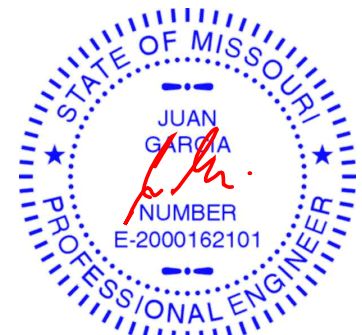
(size) 3=Mechanical, 4=Mechanical, 5=0-3-8  
Max Horz 5=71(LC 8)  
Max Uplift 3=44(LC 12), 5=127(LC 8)  
Max Grav 3=80(LC 1), 4=57(LC 3), 5=332(LC 1)

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

TOP CHORD 2-5=-290/235

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-5-0 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.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 5=127.
- 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.



December 14, 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



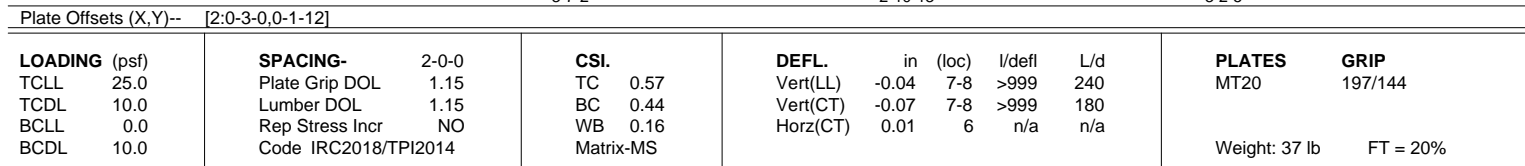
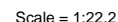
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job Reference (optional)

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 13 11:38:50 2021 Page 1

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12/30/2021



<b>BRACING-</b>	
<b>TOP CHORD</b>	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
<b>BOT CHORD</b>	Rigid ceiling directly applied or 10-0-0 oc bracing.

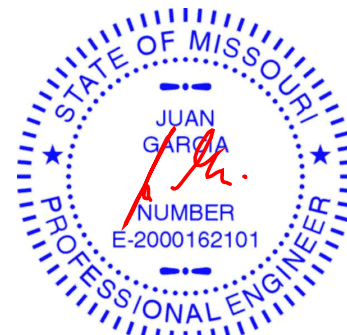
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-537/130, 3-4=-451/135, 4-5=-581/180, 5-6=-396/131, 2-9=-494/201  
 BOT CHORD 8-9=-155/452, 7-8=-185/581  
 WEBS 5-7=-187/635

**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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=121, 9=206.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 57 lb down and 106 lb up at 3-7-2 on top chord, and 46 lb down at 3-7-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) 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: 1-2=-70, 2-3=-70, 3-5=-70, 6-9=20



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Continued on page 2



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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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	F05	Half Hip Girder	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 12 11:36:50 2021 Page 2  
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**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 3=-3(B) 8=-1(B) 10=-3(B) 11=-3(B) 12=-6(B) 13=-6(B) 14=-6(B)



Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	F06	Half Hip	1	1	Job Reference (optional)	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:51 2021 Page 1

ID:q0ZUiNd1SQn\_5kyS6a2asYzcai1-BSEBe\_1UTq1L7JPfr MESKUdZBF2?XASU AwlYS ONJ

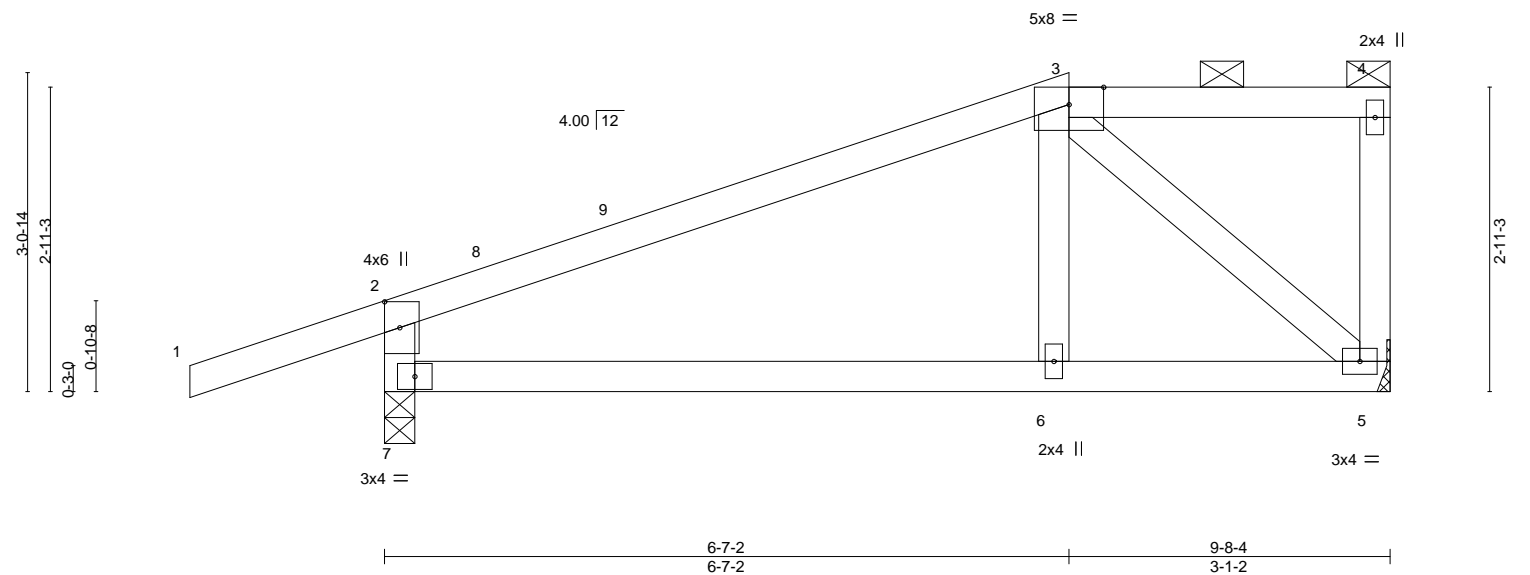
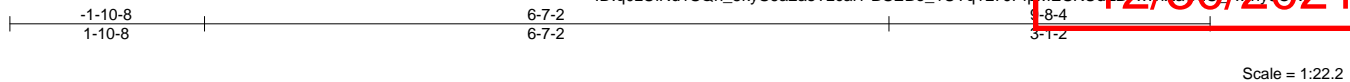


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.04	6-7	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.07	6-7	>999
BCLL 0.0	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.01	5	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 35 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 5=Mechanical, 7=0-3-8  
Max Horz 7=128(LC 9)  
Max Uplift 5=94(LC 8), 7=184(LC 8)  
Max Grav 5=408(LC 1), 7=579(LC 1)

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

TOP CHORD 2-3=-457/155, 2-7=-512/310  
BOT CHORD 6-7=-265/360, 5-6=-267/355  
WEBS 3-5=-473/322

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-7-2, Exterior(2E) 6-7-2 to 9-6-8 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.
- 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) 5 except (jt=lb) 7=184.
- 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.



December 14, 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



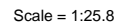
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job Reference (optional)

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 13 11:39:52 2021 Page 1

ID:q0zUjNd1SQn\_5kyS6a2asYzcai1-feoZrK16E89CIT\_rN4lhthajgeCdW?HLL78k/S7v9DNH

12/30/2021

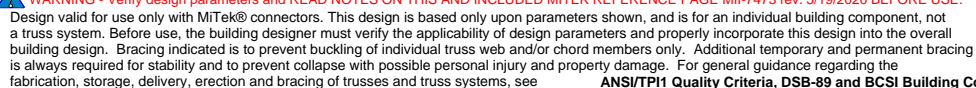
Weight: 33 lb      FT = 20%

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

(size) 7=Mechanical, 8=0-3-8  
Max Horz 8=155(LC 8)  
Max Uplift 7=-121(LC 8), 8=-158(LC 8)  
Max Grav 7=413(LC 1), 8=573(LC 1)

TOP CHORD 2-3=-384/85, 2-8=-484/286  
BOT CHORD 7-8=-197/291  
WEBS 3-7=-423/349

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDEL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 9-8-4 zone; cantilever left and right exposed; end vertical left 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) 8 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) 7=121, 8=158.
- 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.



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







LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 13 11:38:55 2021 Page 1

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2:4 —

t: 41 lb      ET = 20%

<b>BRACING-</b>	
<b>TOP CHORD</b>	Structural wood sheathing directly applied or 4-7-10 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-4 max.): 4-7.
<b>BOT CHORD</b>	Rigid ceiling directly applied or 6-9-5 oc bracing.

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=173, 13=256.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 111 lb down and 60 lb up at 3-7-2 on top chord, and 58 lb down and 79 lb up at 3-7-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) 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



December 14.2021

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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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	F10	Half Hip Girder	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc.
Mon Dec 12 11:38:55 2021 Page 2
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12/30/2021

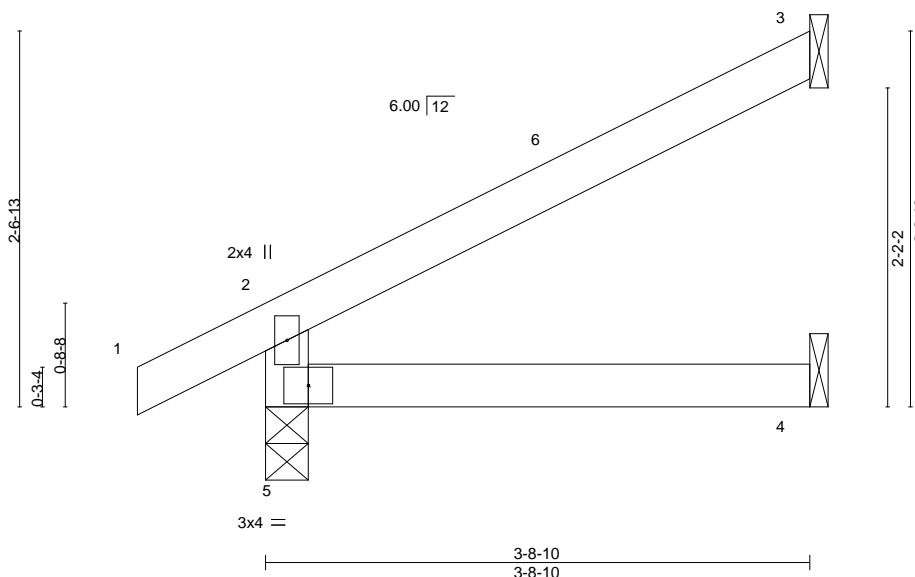
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-7=-70, 12-13=-20, 3-10=-20, 8-9=-20  
 Concentrated Loads (lb)  
 Vert: 11=-34(F) 16=-58(F) 17=-34(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO
3012161	G01	Jack-Open	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc
						Mon Dec 14 11:36:56 2021 Page 1
						ID:q0zUiNd1SQn_5kyS6a2asYzcai1-YQ24hi5dNgeD4dcwqd1XLT93f/Sony2n1kby9DnD
Job Reference (optional)						12/30/2021
						49939792
						LEE'S SUMMIT, MISSOURI

-0-10-8  
0-10-8

3-8-10  
3-8-10

Scale = 1:15.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 11 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-8-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8  
Max Horz 5=83(LC 12)  
Max Uplift 3=62(LC 12), 5=34(LC 12)  
Max Grav 3=107(LC 1), 4=66(LC 3), 5=240(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=25ft; 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 3-7-14 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) 5 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) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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

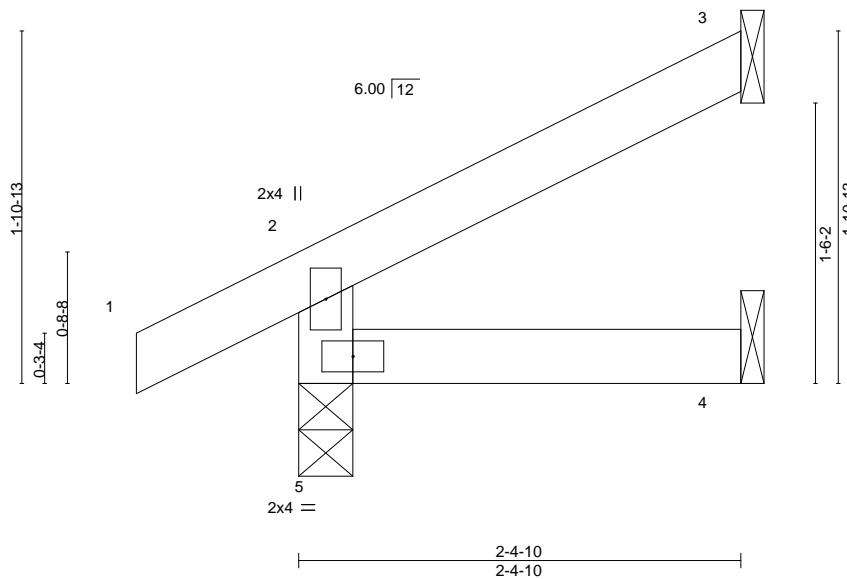


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	G02	Jack-Open	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

0-10-8  
0-10-8

2-4-10  
2-4-10



Scale = 1:12.4

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 0.07	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	180		
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-MR						Weight: 7 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 5=0-3-8  
Max Horz 5=56(LC 12)  
Max Uplift 3=-39(LC 12), 5=-29(LC 12)  
Max Grav 3=60(LC 1), 4=40(LC 3), 5=186(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=25ft; 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) 5 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) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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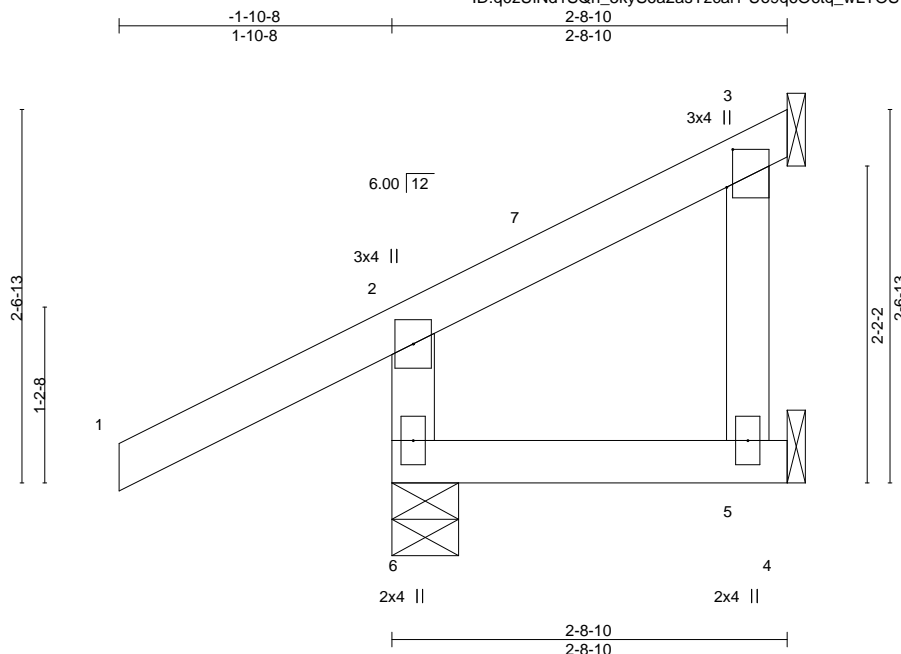


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK
3012161	G03	Jack-Open	1	1	100/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					8.430 s Aug 16 2021 MiTek Industries, Inc
Job Reference (optional)					Mon Dec 12 11:36:58 2021 Page 1

AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
12/30/2021

ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-Uo9q6O6tq\_wLTOS?Ks56yQn:3M5vKQ5V4fzgp90NB



Scale = 1:15.8

Plate Offsets (X,Y)--	[3:0-3-2,0-0-8]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	0.00 5-6	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.00 5-6	>999	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01 3	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 12 lb	FT = 20%		

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-8-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

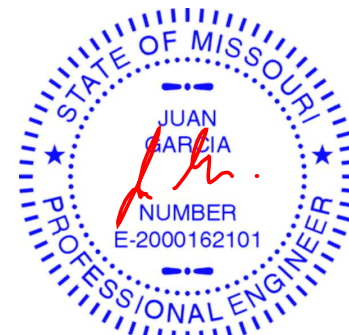
(size) 6=0-5-8, 5=Mechanical, 3=Mechanical  
Max Horz 6=69(LC 9)  
Max Uplift 6=-54(LC 12), 3=-37(LC 12)  
Max Grav 6=307(LC 1), 5=50(LC 3), 3=34(LC 1)

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

TOP CHORD 2-6=-268/217

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-5-6 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.



December 14, 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



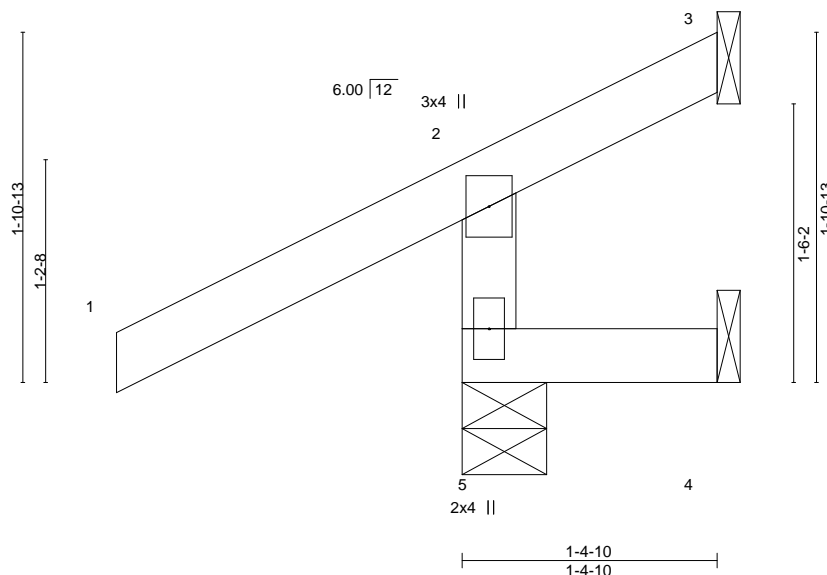
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	G04	Jack-Open	1	1	49939795	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:58 2021 Page 1						
Job Reference (optional)						

ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-Uo9q6O6tq\_wLTOS3Ks56yQrs3MavkQ5V4fZgp9DNB

12/30/2021

Scale = 1:12.5



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 0.29	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 7 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

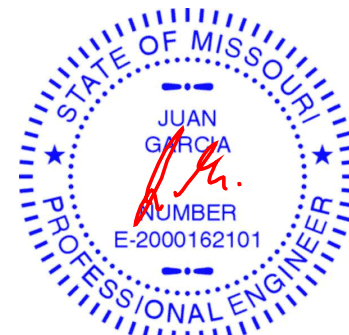
(size) 5=0-5-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=56(LC 9)  
 Max Uplift 5=63(LC 12), 3=-46(LC 1), 4=-16(LC 1)  
 Max Grav 5=313(LC 1), 3=13(LC 8), 4=15(LC 3)

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

TOP CHORD 2-5=-273/237

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; 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) 5, 3, 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.



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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO
3012161	G05	Jack-Open	3	1	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
Job Reference (optional)					

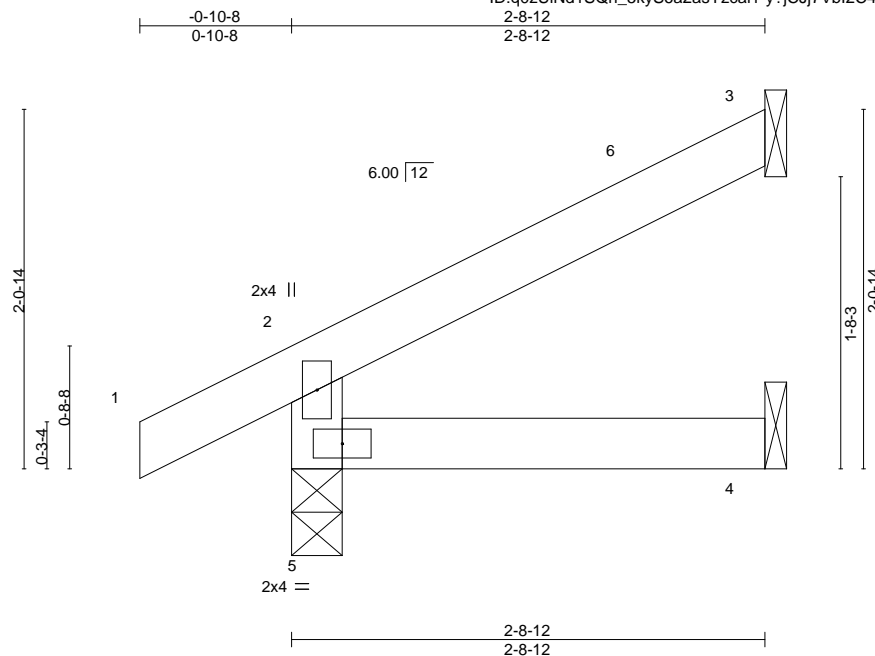
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:59 2021 Page 1

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12/30/2021



Scale = 1:13.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	4-5	>999	180		
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-MR						Weight: 8 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-8-12 oc purlins, except end verticals.

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

**REACTIONS.**

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8

Max Horz 5=63(LC 12)

Max Uplift 3=-45(LC 12), 5=-30(LC 12)

Max Grav 3=73(LC 1), 4=47(LC 3), 5=199(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=25ft; 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 2-8-0 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) 5 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) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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 2060116023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO
3012161	G06	Jack-Open	3	1	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
Job Reference (optional)					

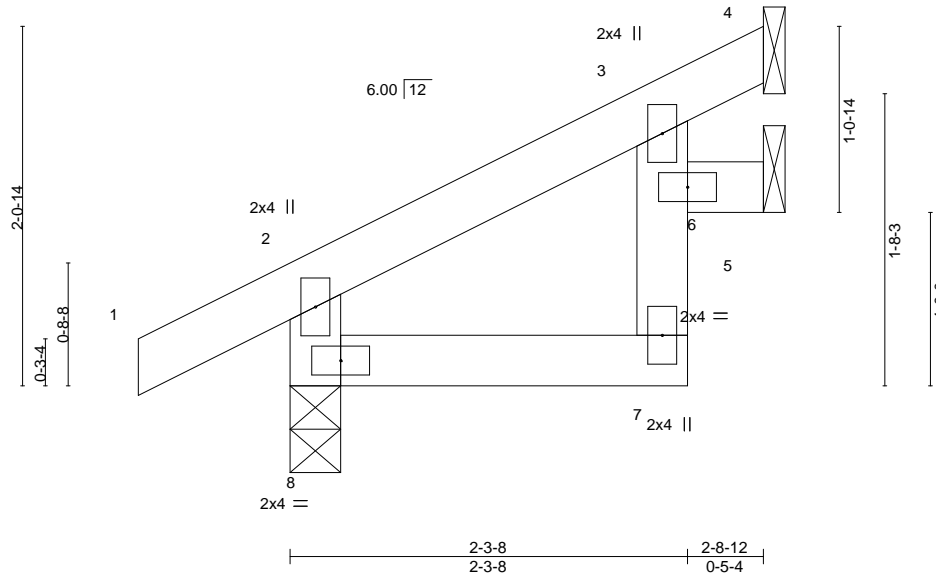
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:00 2021 Page 1

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Scale = 1:13.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	6	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	7	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR					Weight: 10 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=Mechanical, 5=Mechanical, 8=0-3-8  
Max Horz 8=63(LC 12)  
Max Uplift 4=-15(LC 12), 5=-30(LC 12), 8=-30(LC 12)  
Max Grav 4=45(LC 1), 5=54(LC 1), 8=199(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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-15, Interior(1) 2-0-15 to 2-8-0 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) 8 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) 4, 5, 8.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

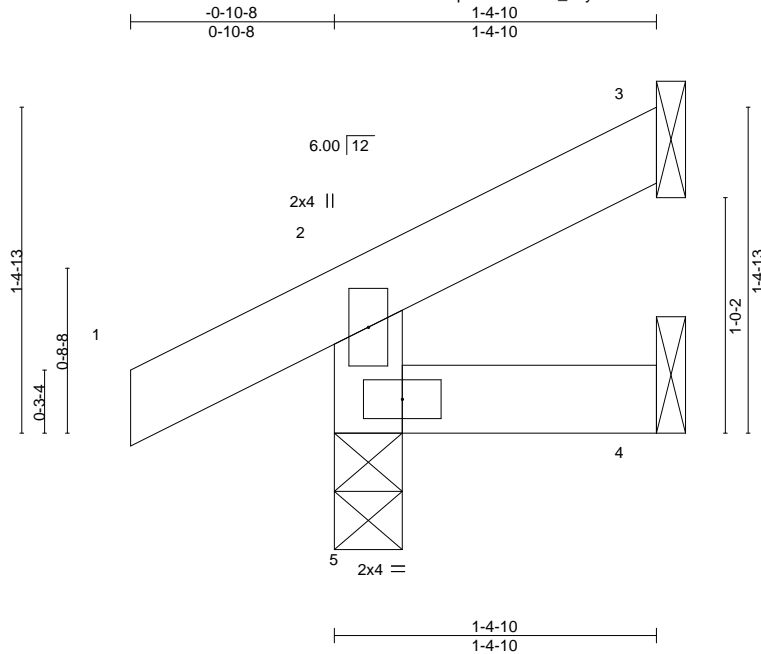
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	G07	Jack-Open	1	1	49939798	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:00 2021 Page 1  
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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	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999	180		
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-MR						Weight: 5 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8  
Max Horz 5=36(LC 12)  
Max Uplift 3=-20(LC 12), 4=-1(LC 9), 5=-28(LC 12)  
Max Grav 3=21(LC 1), 4=21(LC 3), 5=156(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=25ft; 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) 5 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) 3, 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	G08	Jack-Closed	3	1	49939799	DEVELOPMENT SERVICES
Job Reference (optional)						LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 12 11:36:01 2021 Page 1

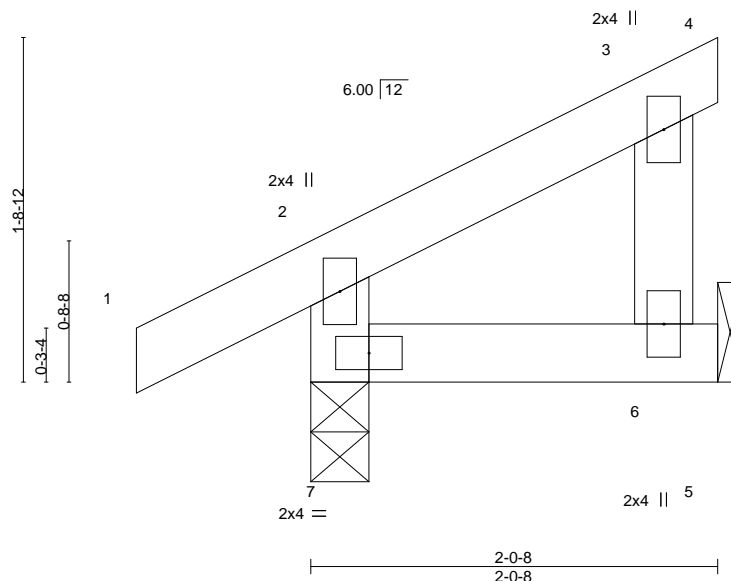
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12/30/2021

-0-10-8  
0-10-8

2-0-8  
2-0-8

Scale = 1:11.6



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 0.07	Vert(LL)	-0.00	7	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	7	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	6	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						
									Weight: 8 lb FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-0-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

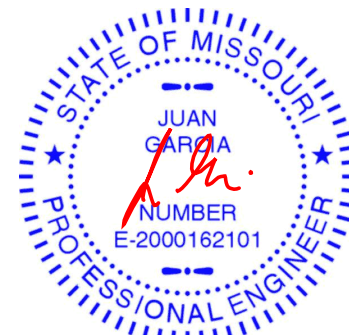
**REACTIONS.**

(size) 6=Mechanical, 7=0-3-8  
Max Horz 7=64(LC 11)  
Max Uplift 6=-27(LC 12), 7=-34(LC 12)  
Max Grav 6=62(LC 1), 7=166(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=25ft; 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) 7 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) 6, 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

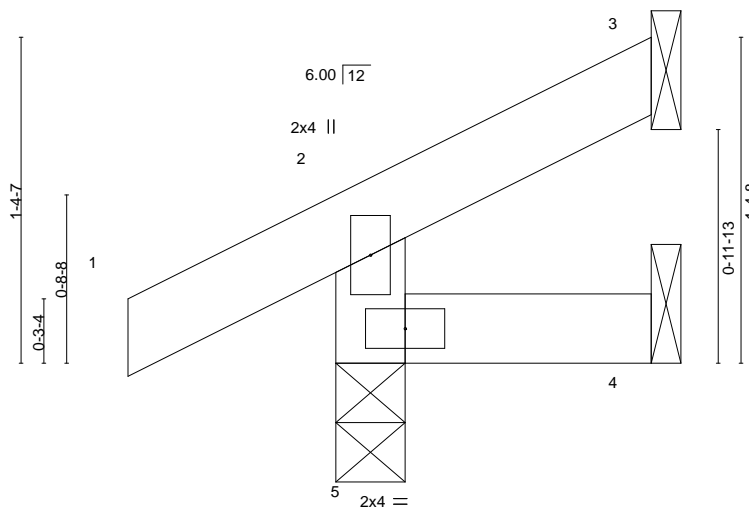
Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO
3012161	G09	Jack-Open	2	1	AS NOTED FOR PLAN REVIEW	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:02 2021 Page 1

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0-10-8 2-2-7 1-3-15

Scale = 1:9.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	5	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>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-MR						
									Weight: 5 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8  
Max Horz 5=35(LC 12)  
Max Uplift 3=-19(LC 12), 4=-1(LC 9), 5=-28(LC 12)  
Max Grav 3=18(LC 1), 4=20(LC 3), 5=155(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=25ft; 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) 5 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) 3, 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO
3012161	H01	Hip Girder	1	2	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

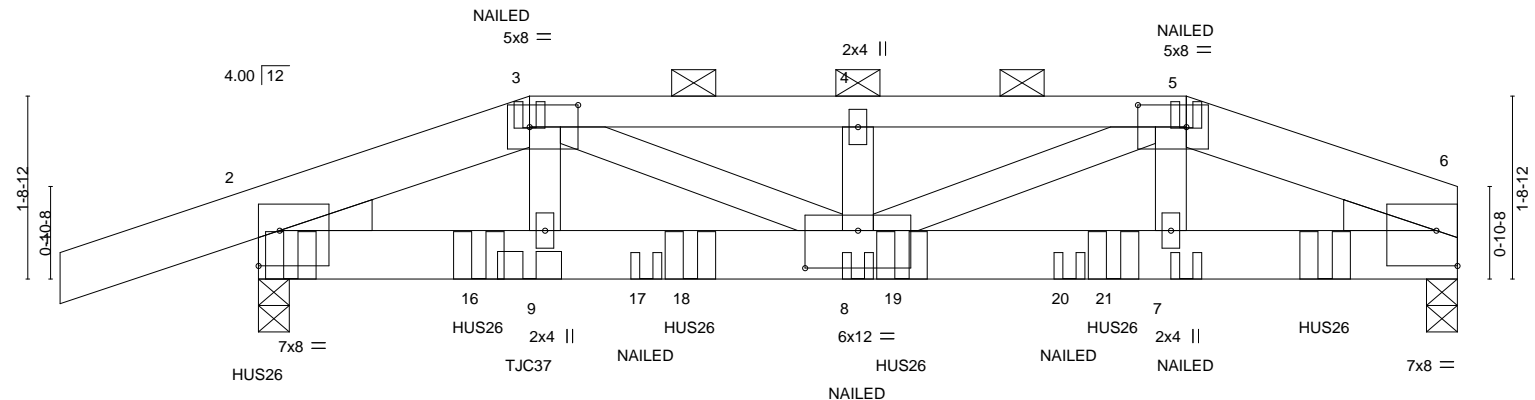
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 14 11:36:04 2021 Page 1

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12/30/2021

Scale = 1:21.8



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**LUMBER-**

TOP CHORD 2x6 SPF No.2 \*Except\*  
3-5: 2x4 SPF No.2  
BOT CHORD 2x6 SPF 2100F 1.8E  
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 5-9-5 oc purlins, except 2-0-0 oc purlins (3-7-14 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=46(LC 25)  
Max Uplift 2=1046(LC 4), 6=754(LC 5)  
Max Grav 2=5252(LC 1), 6=4298(LC 1)

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

TOP CHORD 2-3=-6966/1337, 3-4=-9017/1711, 4-5=-9017/1711, 5-6=-7081/1301  
BOT CHORD 2-9=-1194/6369, 8-9=-1224/6531, 7-8=-1194/6673, 6-7=-1169/6508  
WEBS 3-9=-290/1525, 3-8=-489/2724, 5-8=-536/2598, 5-7=-232/1538

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-7-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=1046, 6=754.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-1-0 oc max. starting at 0-0-0 from the left end to 10-1-0 to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie TJC37 (4 nail 90-150) or equivalent at 2-6-12 from the left end to connect truss(es) to back face of bottom chord, skewed 56.3 deg to the right, sloping 0.0 deg. down.
- Fill all nail holes where hanger is in contact with lumber.
- Use 2-12d (0.148"x3.25") toe-nails per NDS guidelines.



December 14, 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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	H01	Hip Girder	1	2	Job Reference (optional)	DEVELOPMENT SERVICES

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 12 11:36:04 2021 Page 2

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12/30/2021

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-3=-70, 3-5=-70, 5-6=-70, 10-13=-20
  - Concentrated Loads (lb)
    - Vert: 9=7(B) 8=-42(B) 7=7(B) 10=-1360(F) 15=-1387(F) 16=-1381(F) 17=-42(B) 18=-1381(F) 19=-1391(F) 20=-42(B) 21=-1387(F)

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



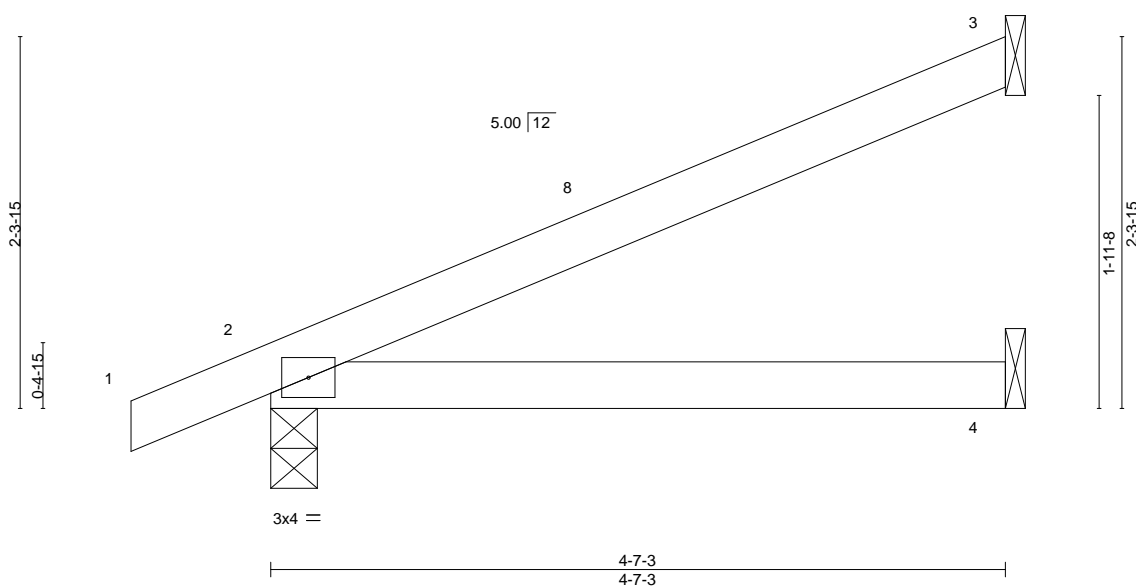
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO
3012161	J01	Jack-Open	3	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc
Job Reference (optional)						Mon Dec 12 11:36:05 2021 Page 1

AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
12/30/2021

-0-10-8  
0-10-8

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4-7-3  
4-7-3



Scale = 1:14.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	0.03	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.04	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 12 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
BOT CHORD 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=90(LC 12)  
Max Uplift 3=65(LC 12), 2=51(LC 12)  
Max Grav 3=138(LC 1), 2=271(LC 1), 4=82(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=25ft; 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.



December 14, 2021

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

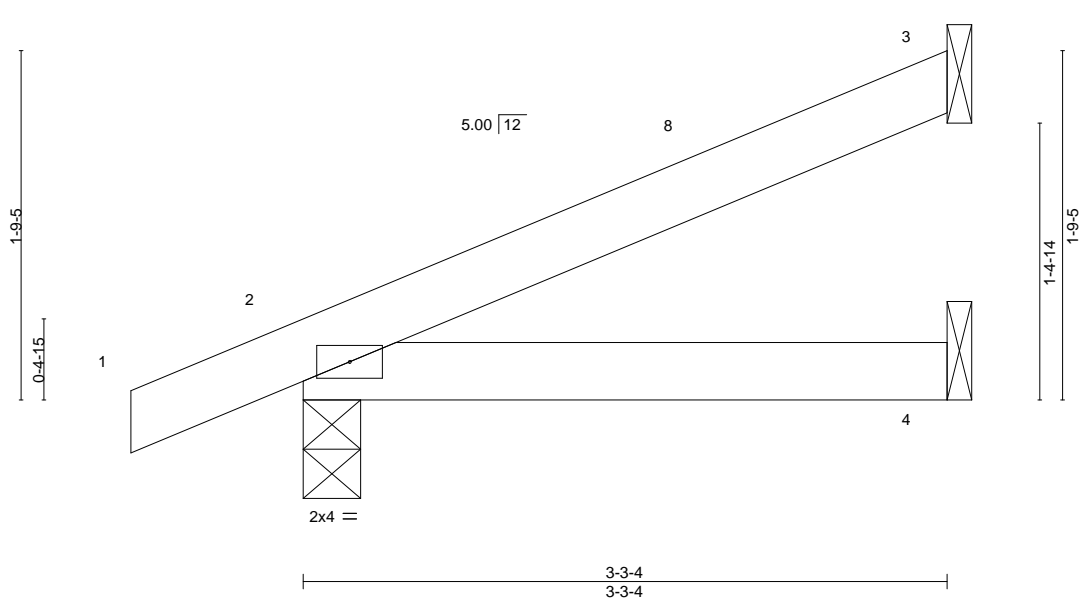
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	J02	Jack-Open	2	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)	LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:06 2021 Page 1  
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12/30/2021



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 0.12	Vert(LL)	-0.01	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 9 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-4 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=67(LC 12)  
Max Uplift 3=-44(LC 12), 2=-43(LC 12)  
Max Grav 3=93(LC 1), 2=214(LC 1), 4=58(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=25ft; 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 3-2-8 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) 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.



December 14,2021

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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**



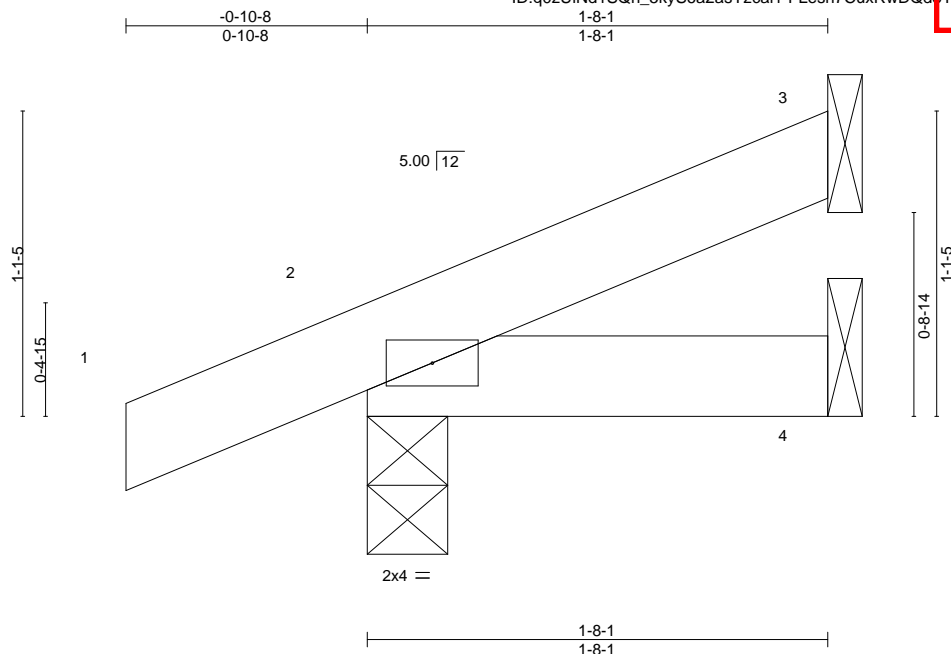
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK
3012161	J03	Jack-Open	2	1	100/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					8.430 s Aug 16 2021 MiTek Industries, Inc
Job Reference (optional)					Mon Dec 14 11:36:06 2021 Page 1

AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
149239894

ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-FLesn7CuxRwDQdsYB0?zReIDv15gnL5FL77vJysQ13

12/30/2021



Scale = 1:8.4

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 0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999	180		
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: 5 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 1-8-1 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

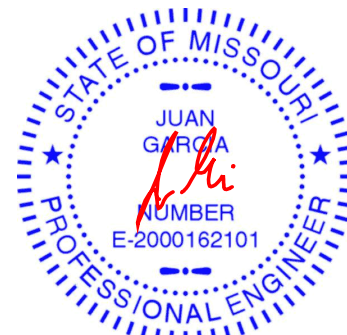
**REACTIONS.**

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=41(LC 12)  
Max Uplift 3=20(LC 12), 2=37(LC 8)  
Max Grav 3=41(LC 1), 2=152(LC 1), 4=28(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=25ft; 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.



December 14, 2021

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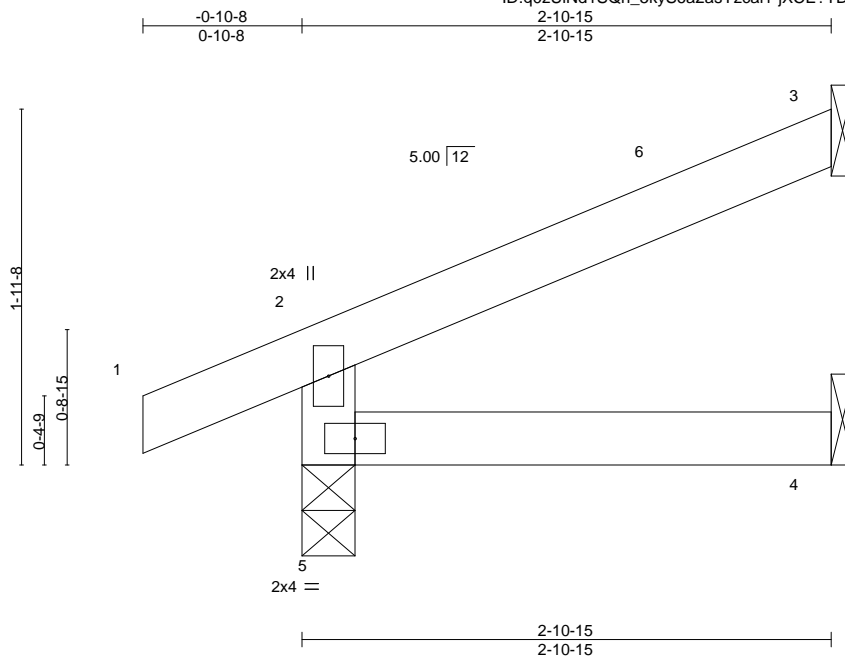
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

**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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	J04	Jack-Open	1	1	49939895	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:07 2021 Page 1						12/30/2021
ID:q0zUiNd1SQn_5kyS6a2asYzcai1-jXCE?TDWl242mekijWC_sNeH0aW0r1aJ50UysQ12						



Scale = 1:12.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	4-5	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-5	>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-MR						
								Weight: 8 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

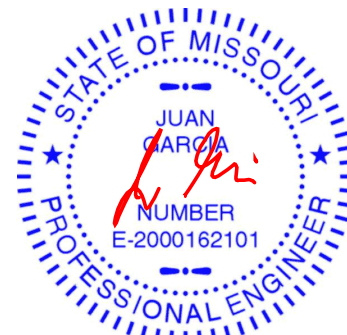
TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 5=0-3-8  
 Max Horz 5=54(LC 12)  
 Max Uplift 3=44(LC 12), 5=-36(LC 12)  
 Max Grav 3=80(LC 1), 4=50(LC 3), 5=207(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=25ft; 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 2-10-3 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) 5 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) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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

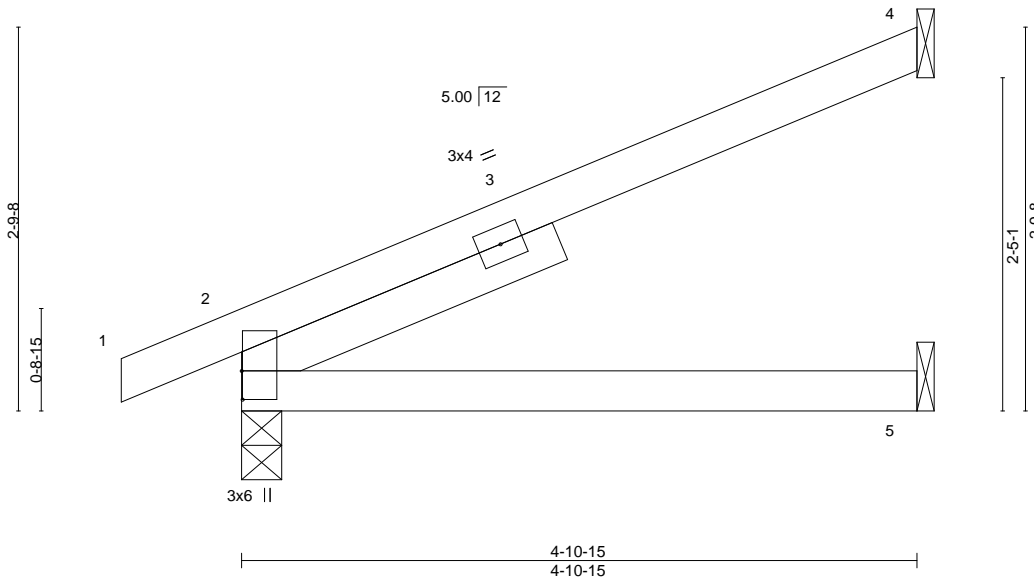


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO
3012161	J05	Jack-Open	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc
						Mon Dec 14 11:36:08 2021 Page 1
						ID:q0zUiNd1SQn_5kyS6a2asYzcai1-BjmcCoE9T3AxfwDwJR1RW3hUpckzFFtndz20C79DN1
Job Reference (optional)						12/30/2021

RELEASE FOR CONSTRUCTION  
AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
12/30/2021

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



Scale = 1:16.8

Plate Offsets (X,Y)--		[2:0-2-8,0-0-1]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32
TCDL 10.0	Lumber DOL	1.15	BC 0.21
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) 0.04 5-8 >999 240
			Vert(CT) -0.05 5-8 >999 180
			Horz(CT) 0.02 2 n/a n/a
			<b>PLATES</b>
			MT20
			<b>GRIP</b>
			197/144
			Weight: 16 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 2-6-0

#### BRACING-

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

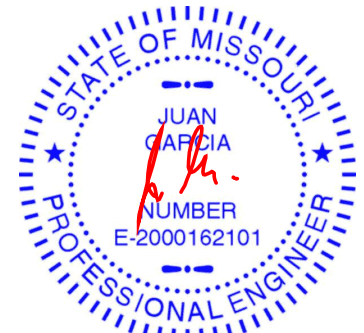
#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=95(LC 12)  
Max Uplift 4=-75(LC 12), 2=-46(LC 12)  
Max Grav 4=152(LC 1), 2=285(LC 1), 5=85(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=25ft; 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 4-10-3 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



December 14, 2021

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

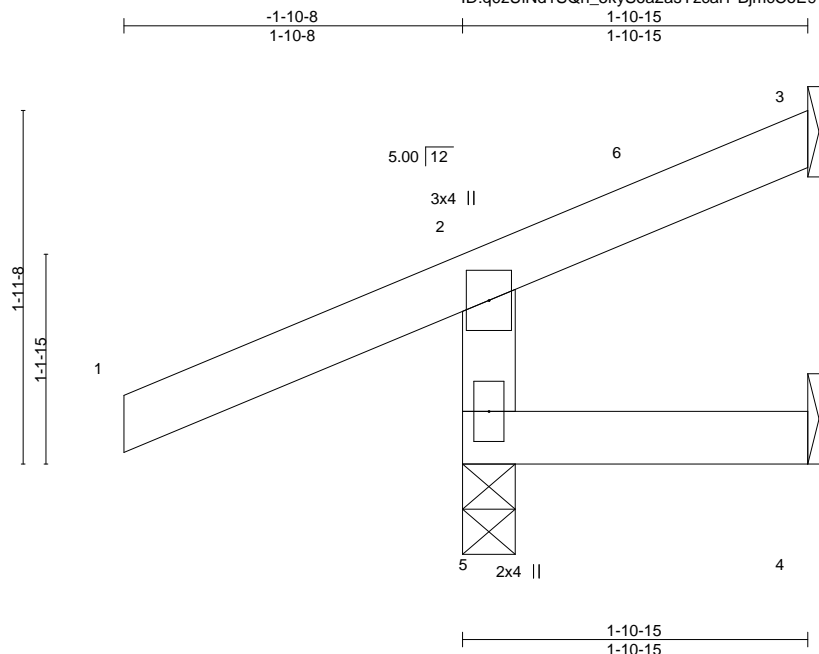
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	J06	Jack-Open	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)	LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 12 11:36:08 2021 Page 1  
ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-BjmcCoE9T3AxfwDwR1RW3q/N5m/FF0ndr20C79DN1



Scale = 1:12.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

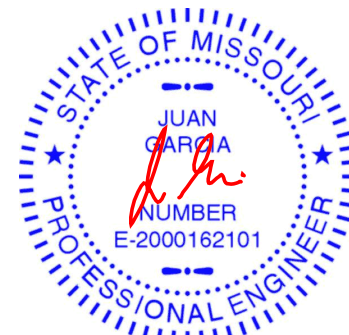
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=57(LC 9)  
Max Uplift 5=-84(LC 8), 3=-19(LC 12), 4=-4(LC 1)  
Max Grav 5=302(LC 1), 3=3(LC 17), 4=27(LC 3)

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

TOP CHORD 2-5=-263/227

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 1-10-13 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) 5, 3, 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.



December 14, 2021

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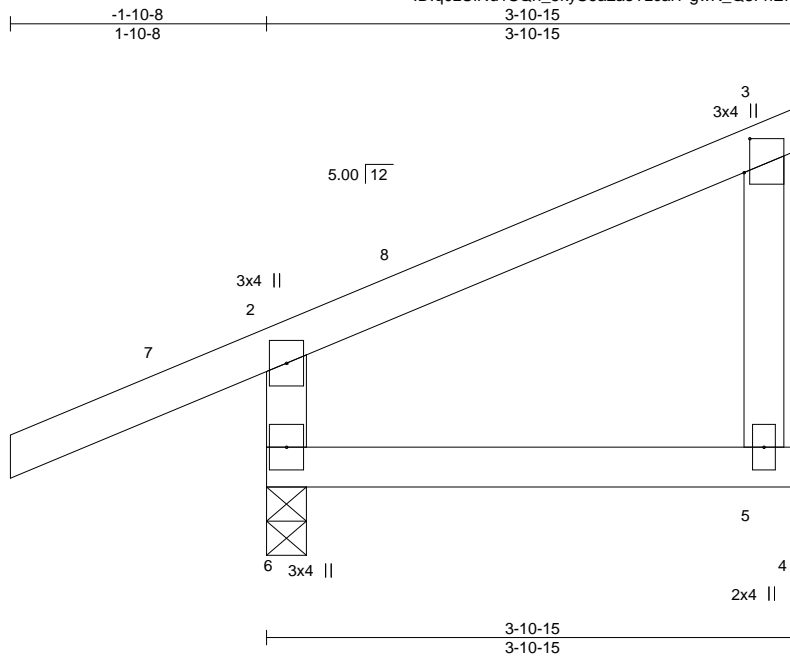
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	J07	Jack-Open	1	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:09 2021 Page 1						149239898
ID:q0zUiNd1SQn_5kyS6a2asYzcai1-gwK_Q8FnEMJnH447s8Zg3HNg2V5x_16_H_17Z6r9Dn0						
Job Reference (optional)						



Scale = 1:16.9

Plate Offsets (X,Y)--		[3:0-3-0,0-0-8]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.01	5-6	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.01	5-6	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	3	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP					Weight: 15 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 6=0-3-8, 5=Mechanical, 3=Mechanical  
 Max Horz 6=77(LC 9)  
 Max Uplift 6=73(LC 8), 3=56(LC 12)  
 Max Grav 6=339(LC 1), 5=74(LC 3), 3=88(LC 1)

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

TOP CHORD 2-6=-298/233

**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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-7-11 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.



December 14, 2021

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	J08	Jack-Open	5	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 14 11:36:10 2021 Page 1  
ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-86uNdUFP?gRevEMJQs4vcUwLZjNZj9h16x1g5479DN?12/30/2021

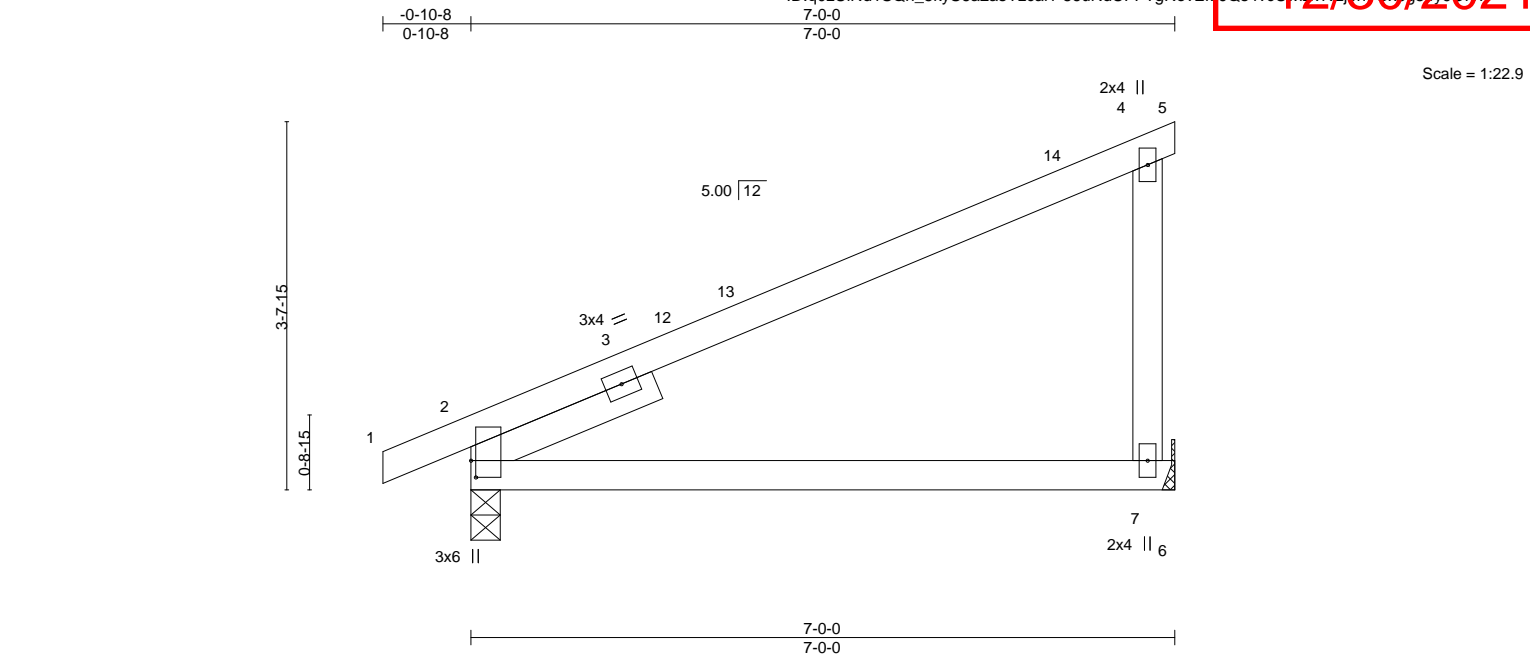


Plate Offsets (X,Y)--		[2:0-2-0,0-0-9]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62
TCDL 10.0	Lumber DOL	1.15	BC 0.43
BCLL 0.0	Rep Stress Incr	YES	WB 0.05
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
<b>DEFL.</b>	in (loc)	l/defl	L/d
Vert(LL)	0.11 7-10	>752	240
Lumber(CT)	-0.20 7-10	>396	180
Horz(CT)	0.05 2	n/a	n/a
<b>PLATES</b>	<b>GRIP</b>		
MT20	197/144		
Weight: 24 lb		FT = 20%	

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
SLIDER Left 2x4 SPF No.2 2-0-0	

<b>REACTIONS.</b>	(size) 2=0-3-8, 7=Mechanical
	Max Horz 2=126(LC 12)
	Max Uplift 2=-58(LC 12), 7=-91(LC 12)
	Max Grav 2=368(LC 1), 7=310(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-369/65

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; 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 7-0-0 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
  - 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.



December 14,2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO
3012161	J09	Half Hip	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 14 11:36:10 2021 Page 1
Job Reference (optional)						12/30/2021

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW  
DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

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

4x6 =

Scale = 1:18.8

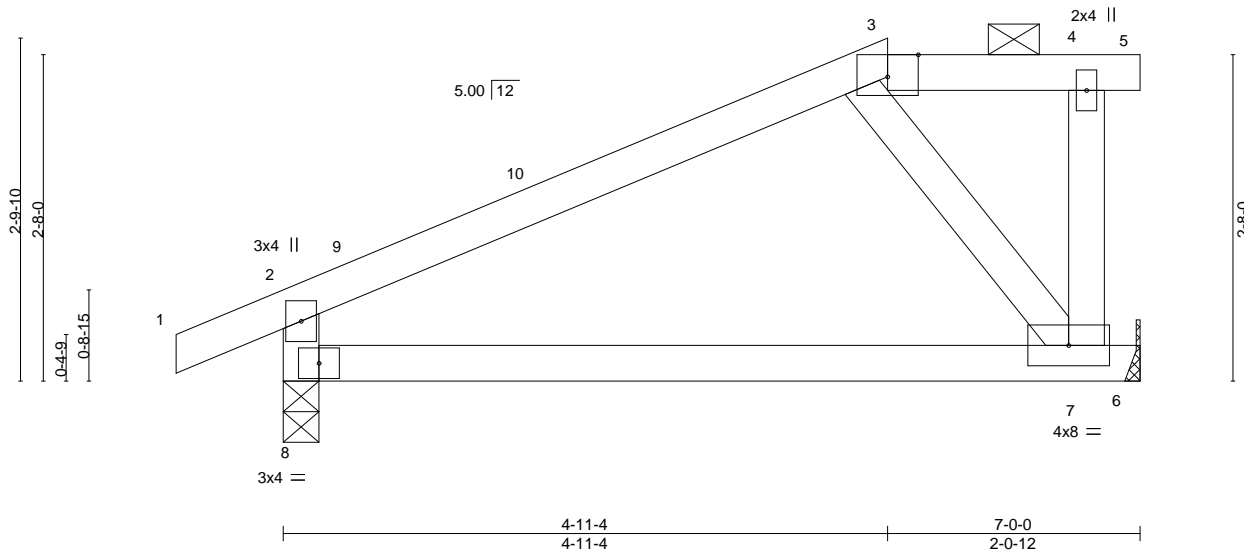


Plate Offsets (X,Y)--	[3:0-3-0,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.05	7-8	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.11	7-8	>772		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 23 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 6=Mechanical, 8=0-3-8  
Max Horz 8=109(LC 9)  
Max Uplift 6=71(LC 9), 8=81(LC 12)  
Max Grav 6=305(LC 1), 8=382(LC 1)

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

TOP CHORD 2-3=-266/112, 2-8=-316/223  
WEBS 3-7=-218/251

#### 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=25ft; 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 4-11-4, Exterior(2E) 4-11-4 to 7-0-0 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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 8 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) 6, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



December 14, 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

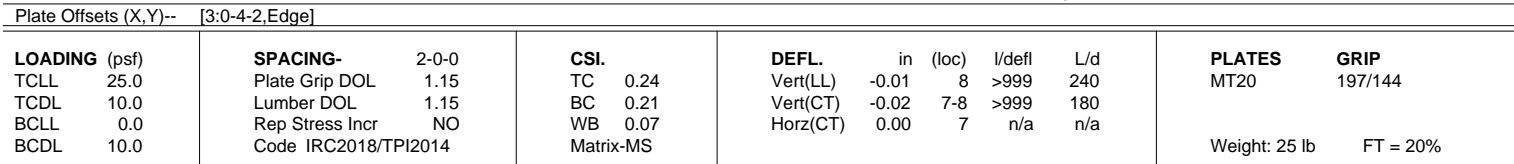
**LEE'S SUMMIT, MISSOURI**

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 13 11:39:11 2021 Page 1

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4-0-12

Scale = 1:15.4



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

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

**REACTIONS.** (size) 7=Mechanical, 9=0-3-8  
Max Horz 9=73(LC 5)  
Max Uplift 7=-74(LC 5), 9=-80(LC 4)  
Max Grav 7=302(LC 1), 9=373(LC 1)

TOP CHORD 2-3=-358/67, 2-9=-318/83  
BOT CHORD 8-9=-85/288, 7-8=-87/286

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 9.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-20, 6-9=-20



December 14, 2021



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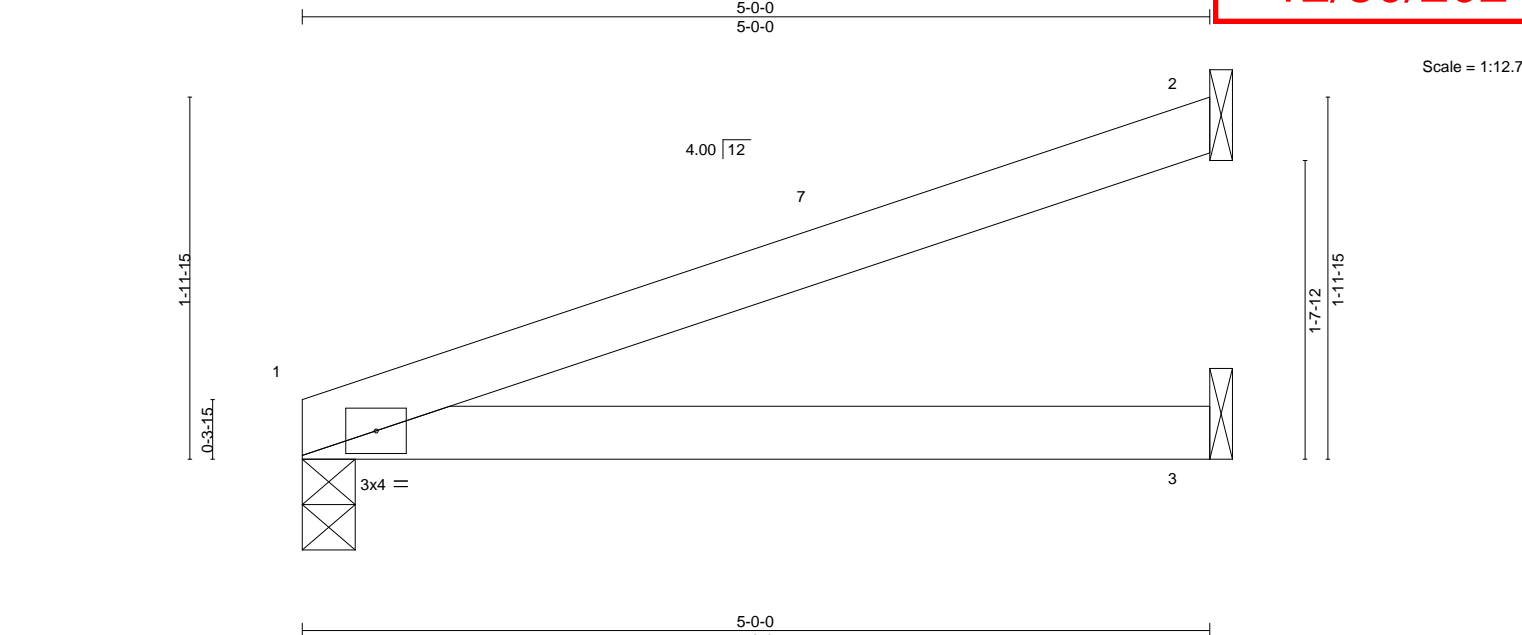
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	J11	Jack-Open	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:12 2021 Page 1  
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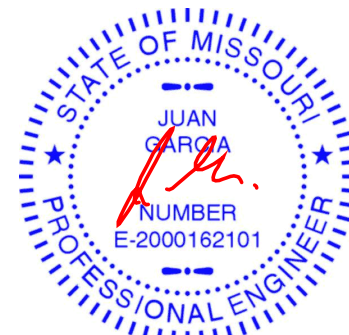
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	0.05	3-6	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.07	3-6	>859	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	1	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
									Weight: 12 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 1=0-3-8, 2=Mechanical, 3=Mechanical  
Max Horz 1=67(LC 8)  
Max Uplift 1=-39(LC 8), 2=-64(LC 8)  
Max Grav 1=222(LC 1), 2=152(LC 1), 3=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=25ft; 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 4-11-4 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) 1, 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.



December 14, 2021

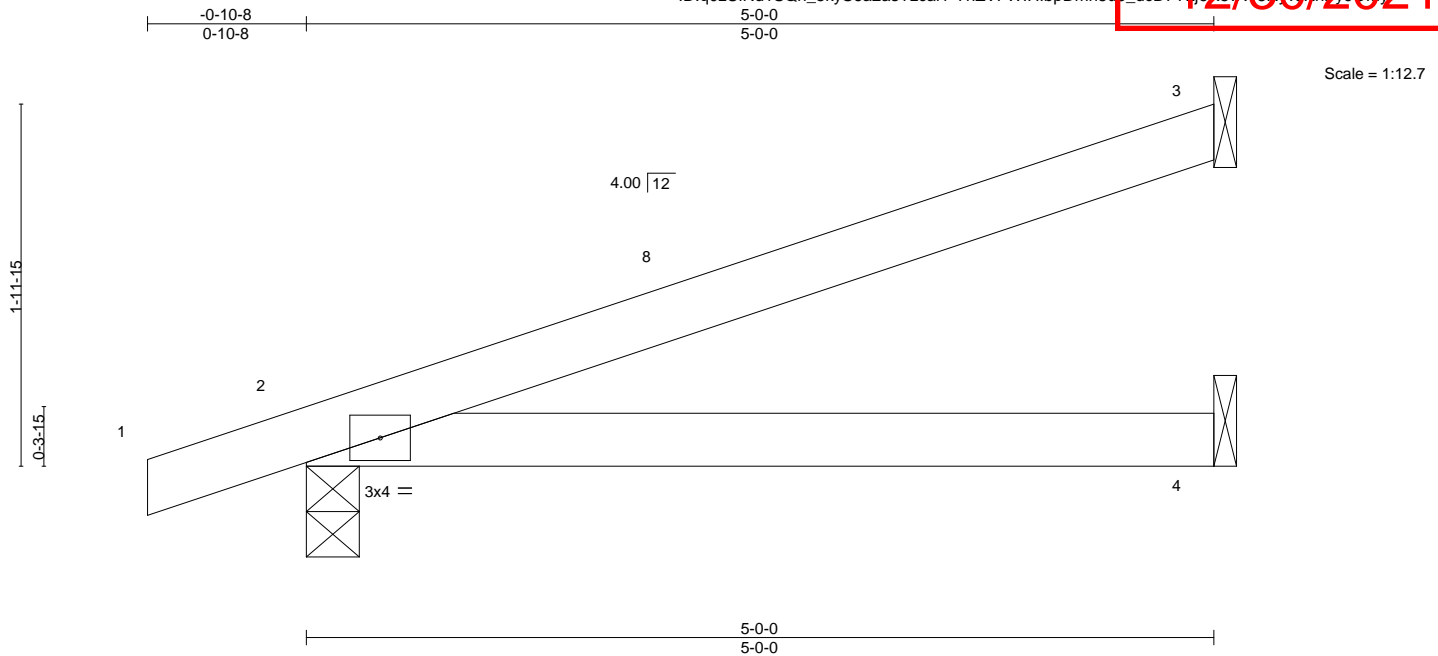
Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
3012161	J12	Jack-Open	3	1	Job Reference (optional)	49939843

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:13 2021 Page 1

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12/30/2021



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 0.31	Vert(LL)	0.04	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.06	4-7	>917	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 13 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

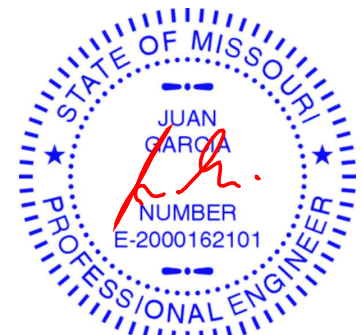
#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=83(LC 8)  
Max Uplift 3=63(LC 12), 2=80(LC 8)  
Max Grav 3=149(LC 1), 2=289(LC 1), 4=88(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=25ft; 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 4-11-4 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) 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.



December 14, 2021

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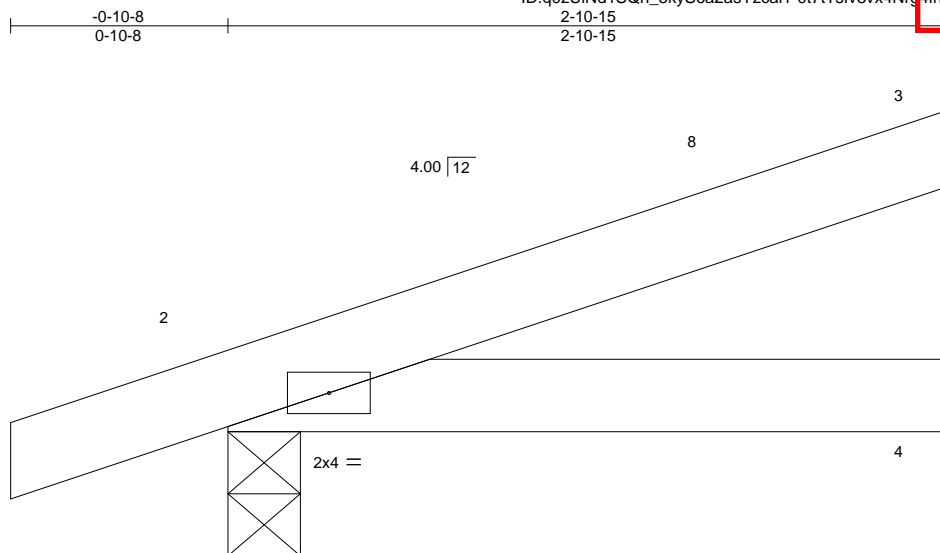
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	J13	Jack-Open	1	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)	LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc Mon Dec 14 11:36:14 2021 Page 1  
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Scale = 1:9.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	4-7	>999	180		
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: 8 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 2-10-15 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

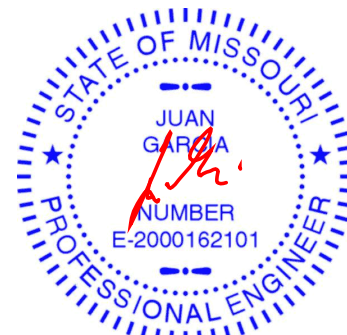
**REACTIONS.**

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
 Max Horz 2=55(LC 8)  
 Max Uplift 3=32(LC 12), 2=66(LC 8)  
 Max Grav 3=78(LC 1), 2=199(LC 1), 4=50(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=25ft; 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 2-10-3 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) 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.



December 14, 2021

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	J14	Jack-Open	1	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)	LEE'S SUMMIT, MISSOURI

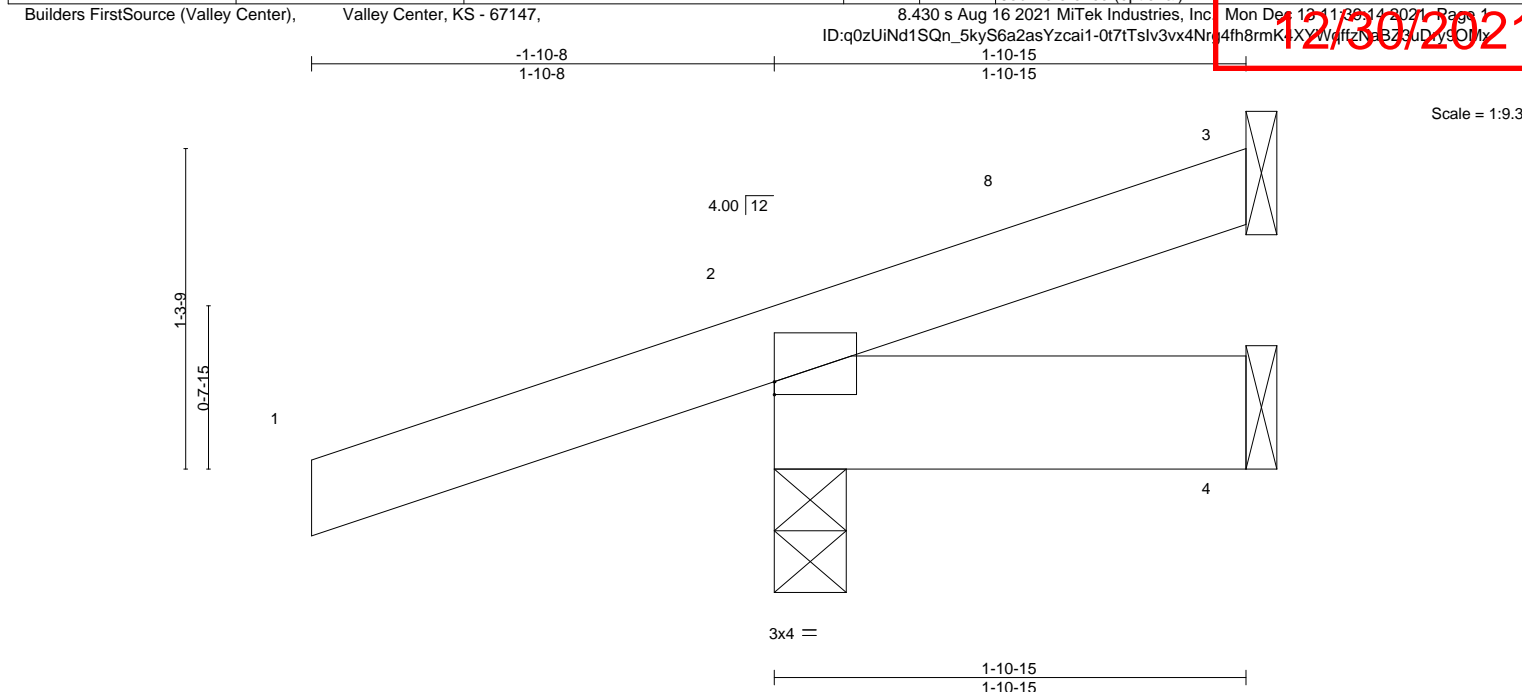


Plate Offsets (X,Y)--	[2:0-0-0,0-0-10]				
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL) 0.00	7 >999 240
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT) 0.00	7 >999 180
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT) -0.00	2 n/a n/a
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP		
					<b>PLATES</b> MT20 <b>GRIP</b> 197/144
					Weight: 8 lb FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=60(LC 8)  
Max Uplift 3=18(LC 12), 2=130(LC 8), 4=14(LC 1)  
Max Grav 3=35(LC 1), 2=282(LC 1), 4=27(LC 8)

**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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 1-10-13 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, 4 except (jt=lb) 2=130.
- 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.



December 14, 2021

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

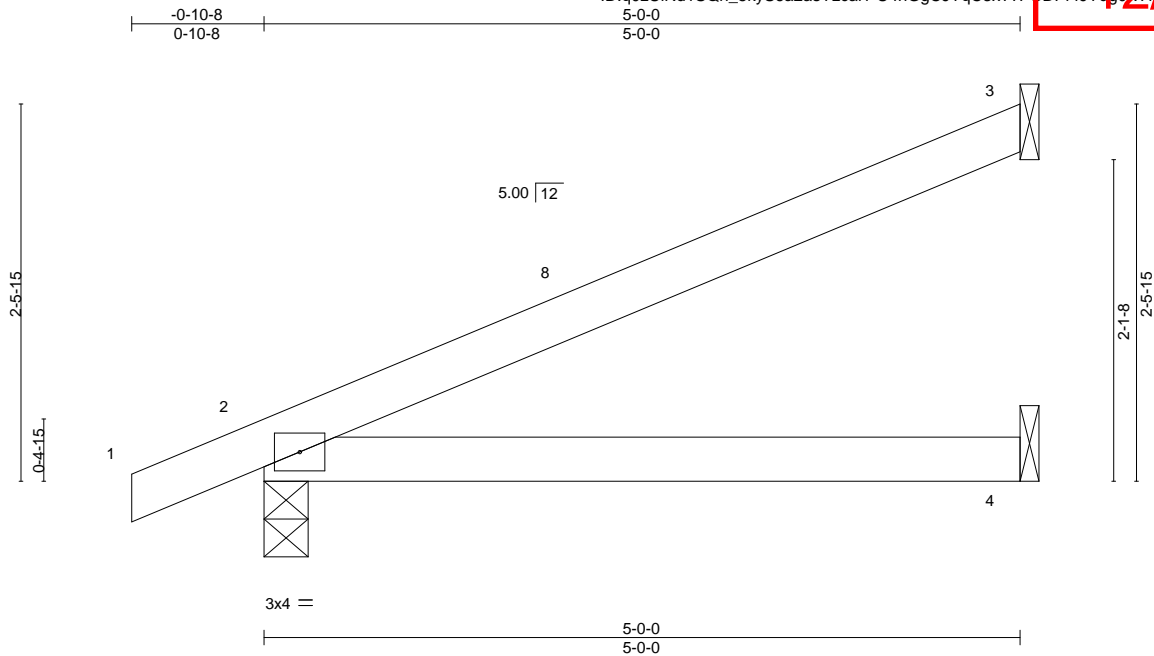
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO
3012161	J15	Jack-Open	2	1	AS NOTED FOR PLAN REVIEW	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI
8.430 s Aug 16 2021 MiTek Industries, Inc						12/30/2021
ID:q0zUiNd1SQn_5kyS6a2asYzcai1-U4hGgCJYqC3x??F6DPf4JYcg0w7r0C0k0D0rRlJ90Dlw						



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 0.32	Vert(LL)	0.04	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.06	4-7	>954	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 13 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 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=-72(LC 12), 2=-53(LC 12)  
Max Grav 3=152(LC 1), 2=289(LC 1), 4=90(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=25ft; 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 4-11-4 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) 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.



December 14, 2021

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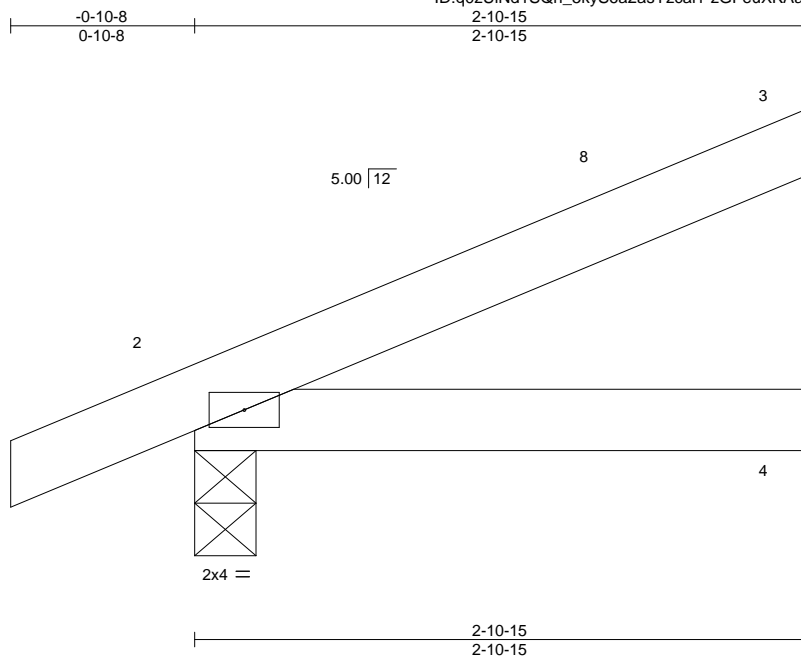
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO
3012161	J16	Jack-Open	4	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc
						Mon Dec 14 11:36:16 2021 Page 1
						ID:q0zUiNd1SQn_5kyS6a2asYzcai1-zGFeuXKAaWBoc9qTn6BJHAvKvGzHt7JHk9DmV
Job Reference (optional)						149339847
						LEE'S SUMMIT, MISSOURI



Scale = 1:11.0

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	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 8 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 2-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

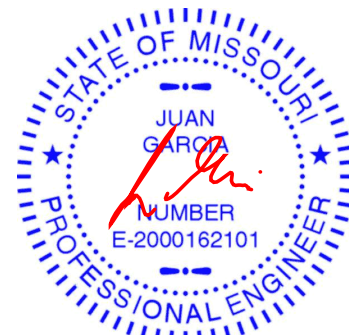
**REACTIONS.**

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=61(LC 12)  
Max Uplift 3=39(LC 12), 2=41(LC 12)  
Max Grav 3=81(LC 1), 2=199(LC 1), 4=51(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=25ft; 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 2-10-3 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) 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.



December 14, 2021

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

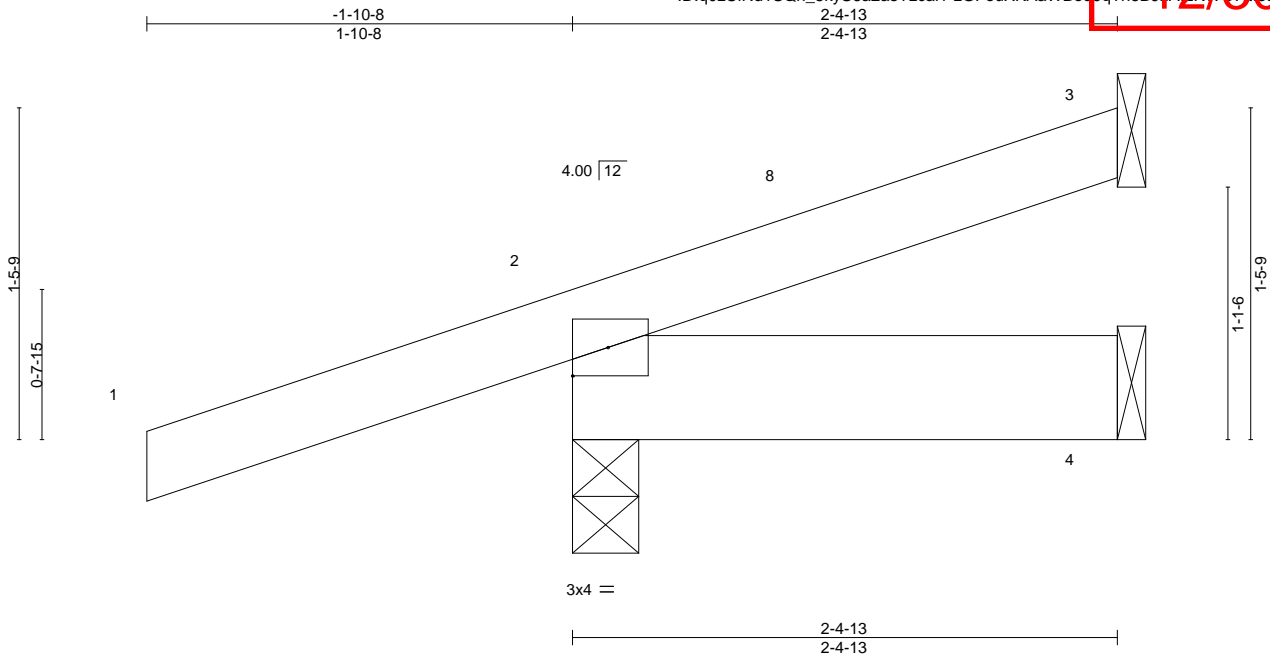


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	J17	Jack-Open	2	1		DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)	LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:16 2021 Page 1  
 ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-zGFeuXKAaWBoc9qTn6BJA12KWG1et7JHk9DmV

12/30/2021



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)	0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	7	>999	180		
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: 10 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-4-13 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=66(LC 8)  
 Max Uplift 3=25(LC 12), 2=127(LC 8)  
 Max Grav 3=50(LC 1), 2=289(LC 1), 4=38(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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-4-1 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 except (jt=lb) 2=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.



December 14, 2021

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	LG1	GABLE	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc	Mon Dec 14 11:36:18 2021 Page 1
Job Reference (optional)						ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-vfNOIDMQ67RWsT...	12/30/2021
						15-6-5 7-10-7	22-2-3 6-7-14

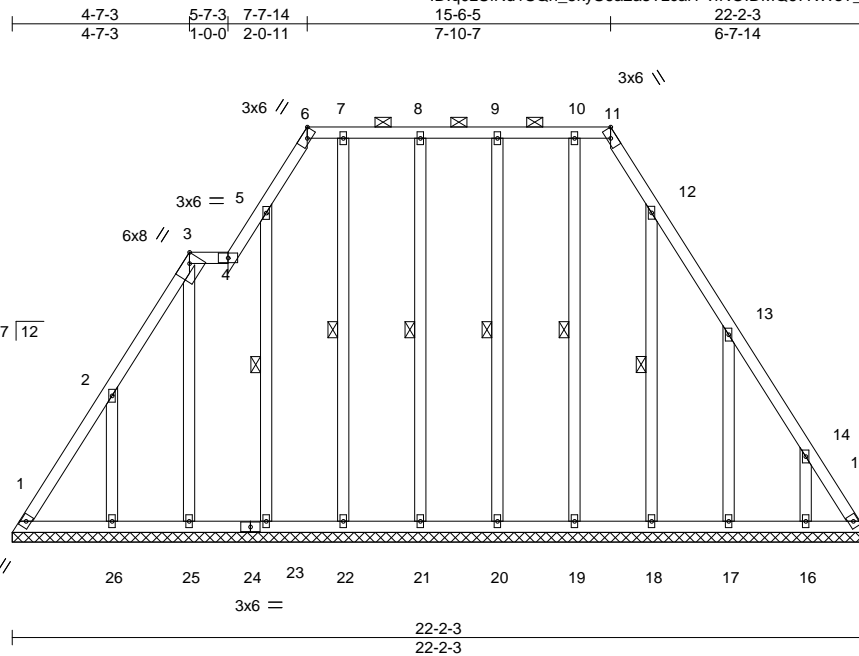


Plate Offsets (X,Y)-- [3:0-2-15,Edge], [6:0-2-15,Edge], [11:0-2-15,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	15	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 147 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.): 3-4, 6-11.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-23, 7-22, 8-21, 9-20, 10-19, 12-18

#### REACTIONS.

All bearings 22-2-3.  
(lb) - Max Horz 1=302(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 23, 22, 21, 20, 19 except 1=177(LC 10), 15=240(LC 11), 26=323(LC 12), 25=190(LC 12), 18=160(LC 13), 17=271(LC 13), 16=221(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 25, 23, 22, 21, 20, 19, 18, 16 except 1=410(LC 12), 15=468(LC 13), 26=329(LC 19), 17=262(LC 20)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=505/359, 13-14=357/239, 14-15=563/397  
BOT CHORD 1-26=231/332, 25-26=231/332, 23-25=231/332, 22-23=231/332, 21-22=231/332, 20-21=231/332, 19-20=231/332, 18-19=231/332, 17-18=231/332, 16-17=231/332, 15-16=231/332  
WEBS 2-26=322/326, 13-17=288/289

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-3 to 3-3-3, Interior(1) 3-3-3 to 4-7-3, Exterior(2E) 4-7-3 to 5-7-3, Interior(1) 5-7-3 to 7-7-14, Exterior(2R) 7-7-14 to 10-7-1, Interior(1) 10-7-1 to 15-6-5, Exterior(2R) 15-6-5 to 18-7-1, Interior(1) 18-7-1 to 21-11-0 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 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) 23, 22, 21, 20, 19 except (jt=lb) 1=177, 15=240, 26=323, 25=190, 18=160, 17=271, 16=221.
- 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.



December 14, 2021

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	LG2	GABLE	1	1	49939830	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

2-1-14 4-1-14 4-11-1 7-10-3  
2-1-14 2-0-0 0-9-4 2-11-1

ID:q0zUiNd1SQn\_5kyS6a2asYzcai1-NrwmWZM2tRZNUcY2SFk0TObQkX5KE1Lmfrfu2y9Dms 12/30/2021

Scale = 1:25.6

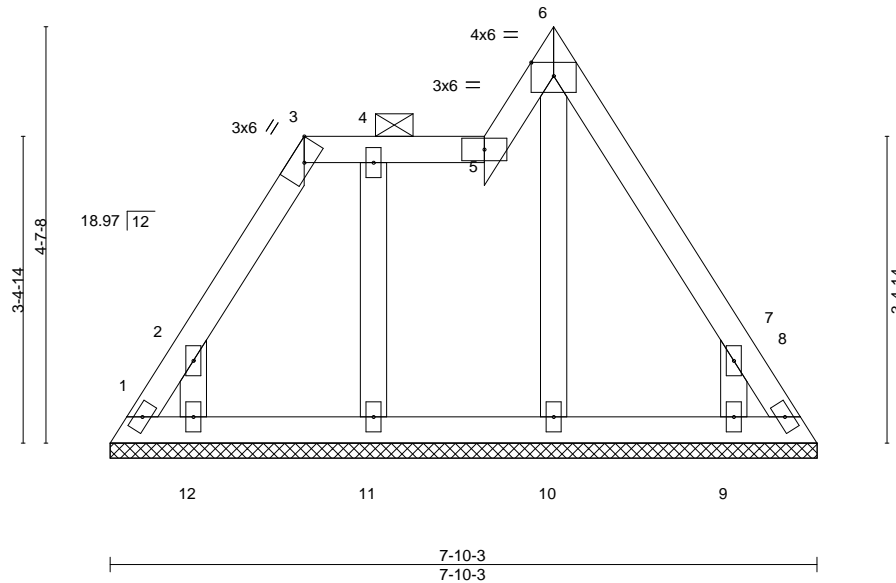


Plate Offsets (X,Y)--		[3:0-2-15,Edge], [6:Edge,0-1-13]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0	Rep Stress Incr	YES	WB 0.04
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 8 n/a n/a
			<b>PLATES</b>
			MT20
			<b>GRIP</b>
			197/144
			Weight: 33 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.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

All bearings 7-10-3.  
(lb) - Max Horz 1=124(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 11 except 8=138(LC 11), 12=168(LC 12), 9=225(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 11, 12, 9

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

**WEBS** 7-9=-266/239

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-3 to 4-1-14, Interior(1) 4-1-14 to 4-11-1, Exterior(2E) 4-11-1 to 7-7-0 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 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, 10, 11 except (jt=lb) 8=138, 12=168, 9=225.
- 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.



December 14, 2021

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

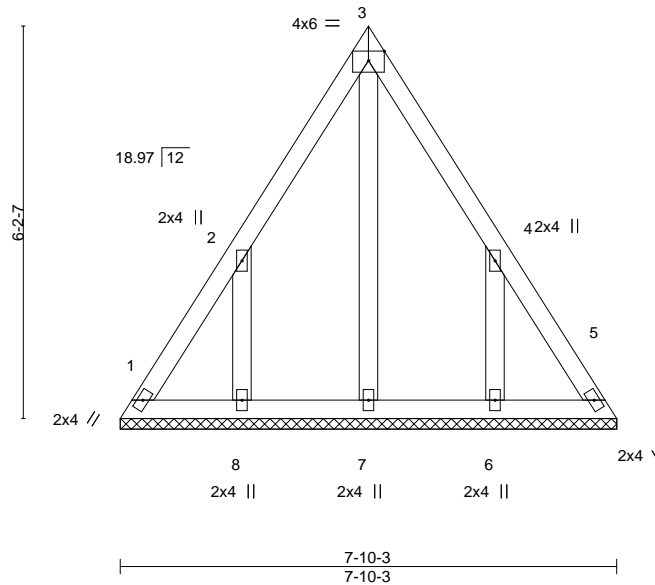
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #100/MO
3012161	LG3	GABLE	1	1	AS NOTED FOR PLAN REVIEW
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					DEVELOPMENT SERVICES
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:20 2021 Page 1					LEE'S SUMMIT, MISSOURI
Job Reference (optional)					12/30/2021

3-11-1 3-11-1 7-10-3 3-11-1



Scale = 1:36.4

Plate Offsets (X,Y)-- [3:Edge,0-1-13]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	<b>L/d</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a 999
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							197/144
							Weight: 37 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.**

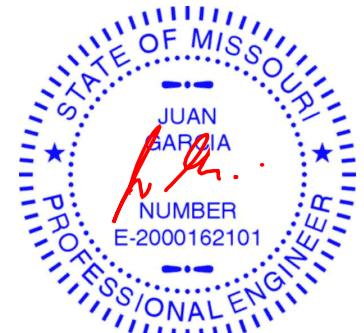
All bearings 7-10-3.  
(lb) - Max Horz 1=-171(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-279(LC 12), 6=-279(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=283(LC 19), 6=283(LC 20)

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

**WEBS** 2-8=-337/296, 4-6=-337/296

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-3 to 3-3-3, Interior(1) 3-3-3 to 3-11-1, Exterior(2R) 3-11-1 to 6-11-1, Interior(1) 6-11-1 to 7-7-0 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) 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) 1, 5 except (jt=lb) 8=279, 6=279.
- 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.



December 14, 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/STONE CREEK #100/MO	AS NOTED FOR PLAN REVIEW
3012161	LG4	GABLE	1	1	4993982	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						LEE'S SUMMIT, MISSOURI

3-10-11 3-10-11 7-9-7 3-10-11

4x6 =

Scale = 1:28.8

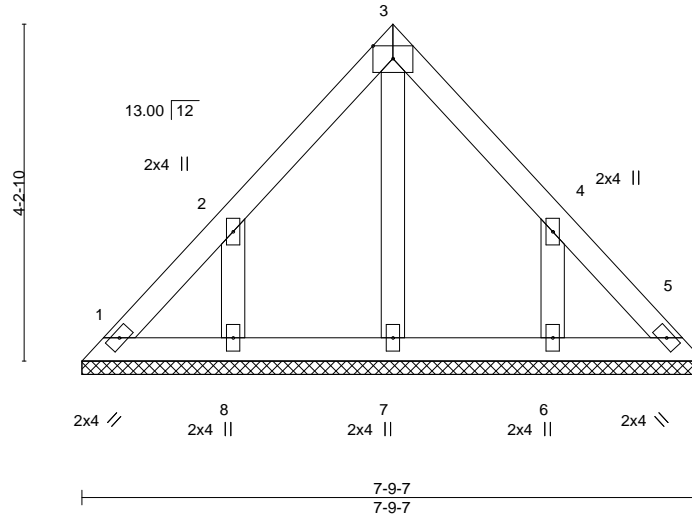


Plate Offsets (X,Y)--		[3:Edge,0-1-15]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0	Rep Stress Incr	YES	WB 0.03
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
<b>DEFL.</b>	in (loc)	l/defl	L/d
Vert(LL)	n/a	-	n/a 999
Vert(CT)	n/a	-	n/a 999
Horz(CT)	0.00	5	n/a n/a
<b>PLATES</b>	<b>GRIP</b>		
MT20	197/144		
Weight: 28 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 7-9-7.  
(lb) - Max Horz 1=103(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=154(LC 12), 6=153(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 3-10-11, Exterior(2R) 3-10-11 to 6-10-11, Interior(1) 6-10-11 to 7-5-7 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 (jt=lb) 8=154, 6=153.
- 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.



December 14, 2021

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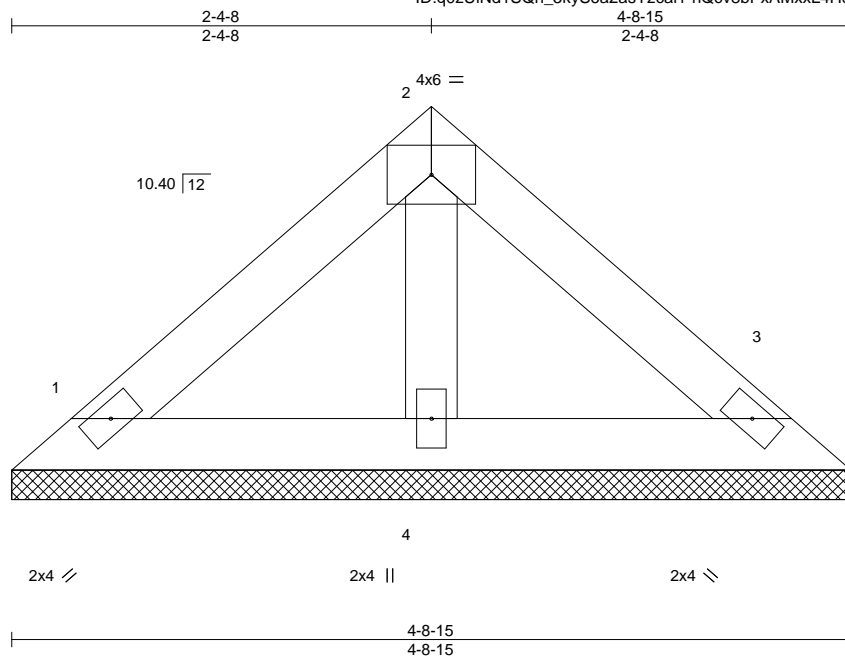
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK	100/MO
3012161	LG5	GABLE	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 14 11:36:22 2021 Page 1
Job Reference (optional)						12/30/2021
ID:q0zUiNd1SQn_5kyS6a2asYzcai1-nQcv8bPxAMxxL4Hc7NHk50PwkdZda9n1o3JW/O9DNg						12/30/2021
						LEE'S SUMMIT, MISSOURI



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)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 13 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 4-8-15 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=4-8-15, 3=4-8-15, 4=4-8-15  
 Max Horz 1=45(LC 11)  
 Max Uplift 1=25(LC 13), 3=29(LC 13), 4=3(LC 12)  
 Max Grav 1=104(LC 1), 3=104(LC 1), 4=149(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=25ft; 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.



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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/STONE CREEK	100/MO	AS NOTED FOR PLAN REVIEW
3012161	LG6	GABLE	1	1			DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)	LEE'S SUMMIT, MISSOURI

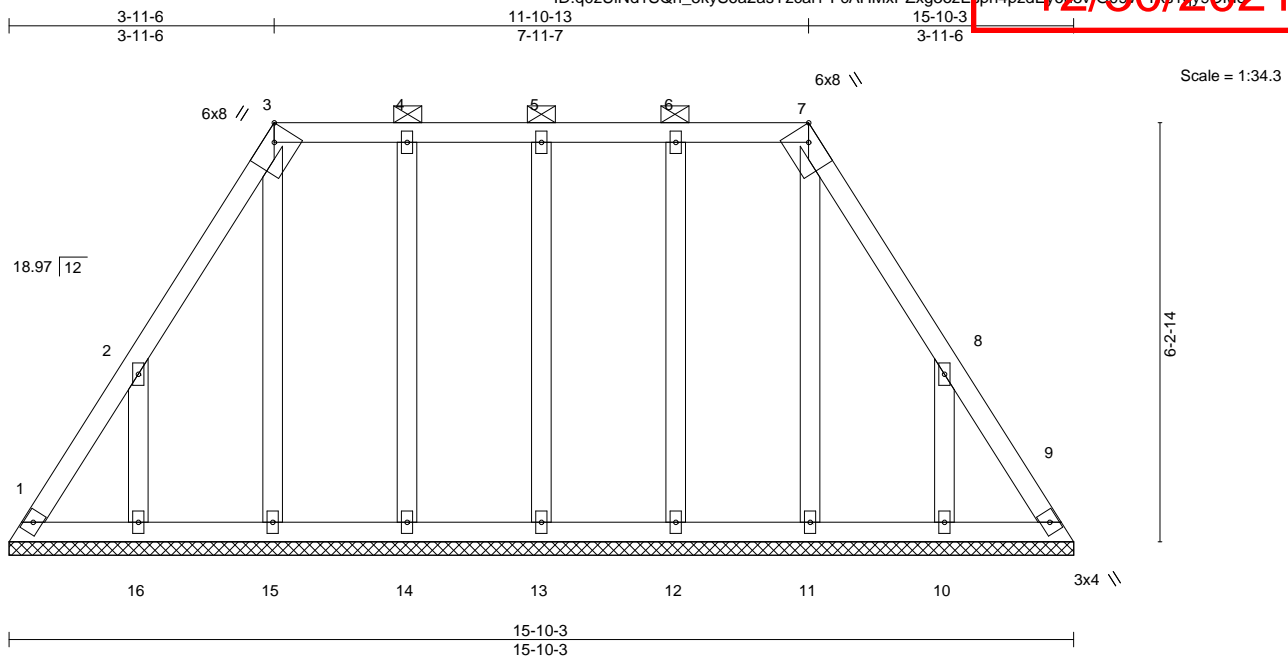


Plate Offsets (X,Y)--		[3:0-2-15,Edge], [7:0-2-15,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08
TCDL 10.0	Lumber DOL	1.15	BC 0.04
BCLL 0.0	Rep Stress Incr	YES	WB 0.09
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 9 n/a n/a
			<b>PLATES</b>
			MT20
			<b>GRIP</b>
			197/144
			Weight: 81 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.): 3-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

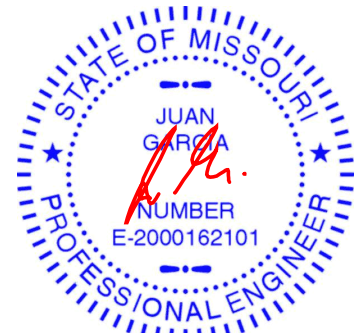
All bearings 15-10-3.  
(lb) - Max Horz 1=174(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 9, 13, 14, 15, 12, 11 except 1=110(LC 10), 16=271(LC 12), 10=271(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 12, 11 except 16=275(LC 19), 10=274(LC 20)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-16=290/278, 8-10=290/278

#### 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-3 to 3-3-3, Interior(1) 3-3-3 to 3-11-6, Exterior(2R) 3-11-6 to 7-11-1, Interior(1) 7-11-1 to 11-10-13, Exterior(2E) 11-10-13 to 15-7-0 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 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) 9, 13, 14, 15, 12, 11 except (jt=lb) 1=110, 16=271, 10=271.
- 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.



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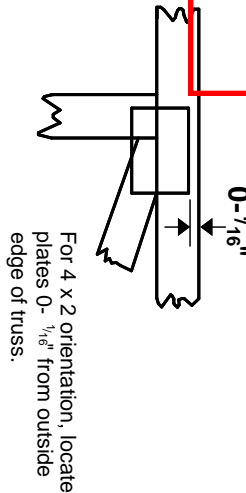


12/30/2021

# Symbols

## PLATE LOCATION AND ORIENTATION

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



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

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

\* Plate location details available in **MiTek 20/20** software or upon request.

## PLATE SIZE

4 X 4

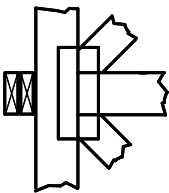
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



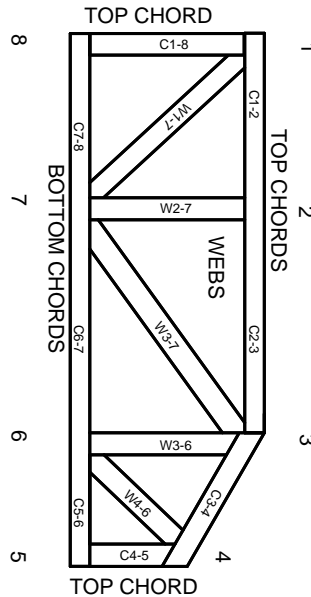
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

- ESR-1311, ESR-1352, ESR1988
- ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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