



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/21/2021

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

Re: 2704670
SUMMIT/STONE CREEK #92/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: I45088519 thru I45088582

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

Missouri COA: Engineering 001193



March 8, 2021

Sevier, Scott ,Engineer

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

Job 2704670	Truss A1	Truss Type Roof Special	Qty 3	Ply 1	SUMMIT/STONE CREEK #92/MO Job Reference (optional)	I45088519
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

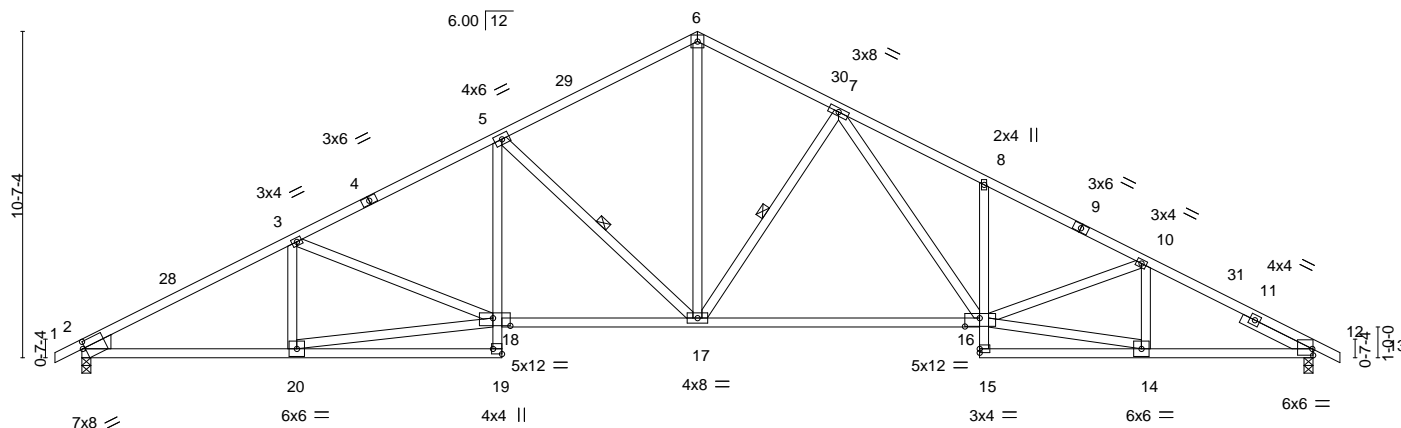
8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:37:50 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-7j18sPKgZLezD20qeR4RyJA42TEgSwwXzuCfaEzd1f?

0-10-8 6-10-1 13-7-12 20-0-0 24-7-0 29-2-0 34-6-13 40-0-0 40-10-8
0-10-8 6-10-1 6-9-11 6-4-4 4-7-0 4-7-0 5-4-13 5-5-3 0-10-8

5x5 =

Scale = 1:74.9



6-10-1 13-7-12 20-0-0 29-2-0 34-6-13 40-0-0
6-10-1 6-9-11 6-4-4 9-2-0 5-4-13 5-5-3

Plate Offsets (X,Y)-- [2:0-0-15,0-2-10], [12:Edge,0-2-8], [16:0-5-12,0-3-4], [18:0-6-12,0-3-0], [19: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 0.67	Vert(LL)	-0.27 16-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.64 16-17	>752	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.21 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 190 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 "Except"
12-15: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x6 SPF No.2
SLIDER Right 2x4 SPF No.2 -t 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-17, 7-17

REACTIONS.

(size) 2=0-3-8, 12=0-3-8
Max Horz 2=184(LC 12)
Max Uplift 2=316(LC 12), 12=318(LC 13)
Max Grav 2=1854(LC 1), 12=1865(LC 1)

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

TOP CHORD 2-3=-3205/521, 3-5=-3091/531, 5-6=-2294/473, 6-7=-2250/479, 7-8=-3471/643,
8-10=-3429/550, 10-12=-3102/514
BOT CHORD 2-20=-546/2765, 5-18=-87/550, 17-18=-420/2692, 16-17=-228/2407, 8-16=-399/194,
12-14=-368/2697
WEBS 3-20=-317/137, 18-20=-529/2574, 5-17=-1011/347, 6-17=-272/1578, 7-17=-833/308,
7-16=-278/1119, 14-16=-329/2608, 10-16=-26/348, 10-14=-478/113

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 3-1-8, Interior(1) 3-1-8 to 20-0-0, Exterior(2R) 20-0-0 to 24-0-0, Interior(1) 24-0-0 to 40-10-8 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
- 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=316, 12=318.
- This truss 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.



March 8, 2021

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

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



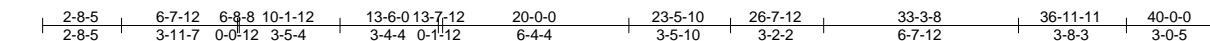
16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:37:57 2021 Page 1

ID: 230iNkEGYePzNd9PEe1z6czlwVq-P3vpKpP3vVWz772A7Pi4kovEMldvh5S7alJ0X.IKzd1eu

 $6 \times 6 =$

Scale = 1:78.6



TOP CHORD	Structural wood sheathing directly applied.	
BOT CHORD	Rigid ceiling directly applied. Except: 9-5-0 oc bracing: 21-22	
WEBS	1 Row at midpt	8-19, 9-18, 6-19, 5-21

- 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 2-10-1, Interior(1) 2-10-1 to 20-0-0, Exterior(2R) 20-0-0 to 24-0-0, Interior(1) 24-0-0 to 40-10-8 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) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 316 lb uplift at joint 2 and 318 lb uplift at joint 13.
- 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.



March 8, 2021



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



16023 Swingley Ridge Rd
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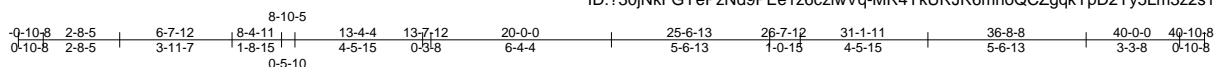
Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	145088521
2704670	A3	Roof Special	3	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:37:59 2021 Page 1

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6x6 =

Scale = 1:81.1

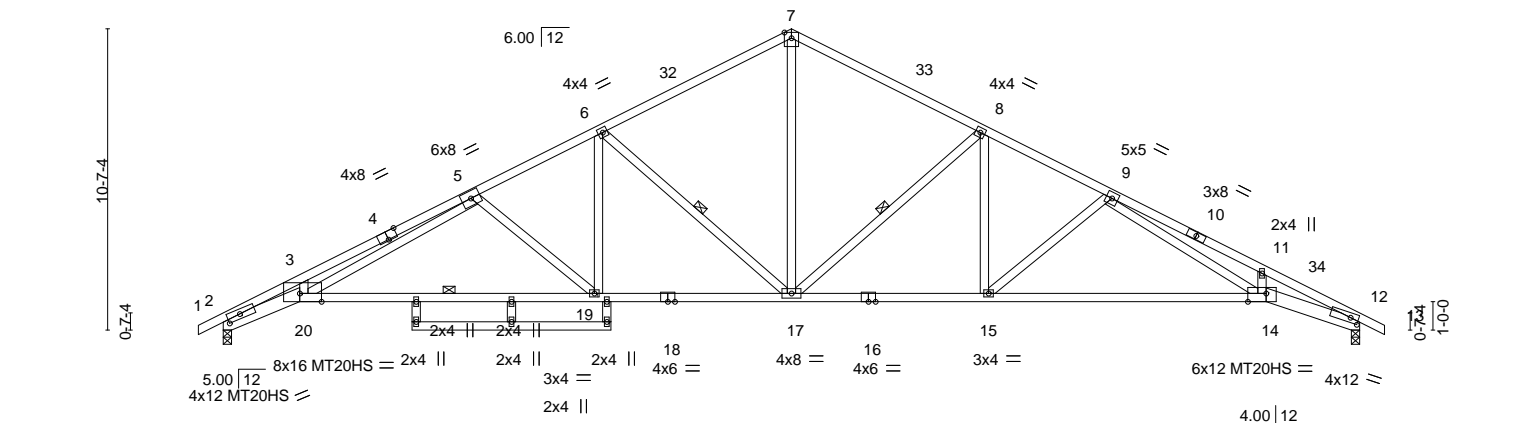


Plate Offsets (X,Y)--	[2:0-5-8,0-2-0], [4:0-4-0,Edge], [12:0-3-7,0-2-0], [14:0-7-12,Edge], [20:0-9-3,Edge]
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LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.98	Vert(LL) -0.49 19-20 >982 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.83	Vert(CT) -1.07 19-20 >448 180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr YES	WB 0.78	Horz(CT) 0.51 12 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS			
				Weight: 207 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
 BOT CHORD 2x4 SPF No.2 *Except*
 2-20,12-14: 2x6 SPF 2100F 1.8E, 18-20: 2x4 SP 2400F 2.0E
 14-16: 2x4 SPF 1650F 1.5E
 WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied. Except:
 10-0-0 oc bracing: 19-20
 WEBS 1 Row at midpt 6-17, 8-17

REACTIONS.

(size) 2=0-3-8, 12=0-3-8
 Max Horz 2=184(LC 12)
 Max Uplift 2=317(LC 12), 12=317(LC 13)
 Max Grav 2=1861(LC 1), 12=1861(LC 1)

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

TOP CHORD 2-3=-7082/1290, 3-5=-6819/1392, 5-6=-3176/543, 6-7=-2292/477, 7-8=-2293/478,
 8-9=-3158/537, 9-11=-6073/1025, 11-12=-6205/913
 BOT CHORD 2-20=-1312/6422, 19-20=-643/3384, 17-19=-419/2761, 15-17=-276/2755,
 14-15=-414/3365, 12-14=-766/5578
 WEBS 3-20=0/432, 6-17=-1060/325, 7-17=-225/1459, 8-17=-1053/311, 6-19=-114/760,
 8-15=-88/722, 9-15=-791/253, 9-14=-446/2466, 5-19=-808/290, 5-20=-757/3159

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 2-10-1, Interior(1) 2-10-1 to 20-0-0, Exterior(2R) 20-0-0 to 24-0-0, Interior(1) 24-0-0 to 40-10-8 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
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2, 12 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 317 lb uplift at joint 2 and 317 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



March 8, 2021

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16023 Swingley Ridge Rd
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Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	145088522
2704670	A4	Hip	1	1	Job Reference (optional)	

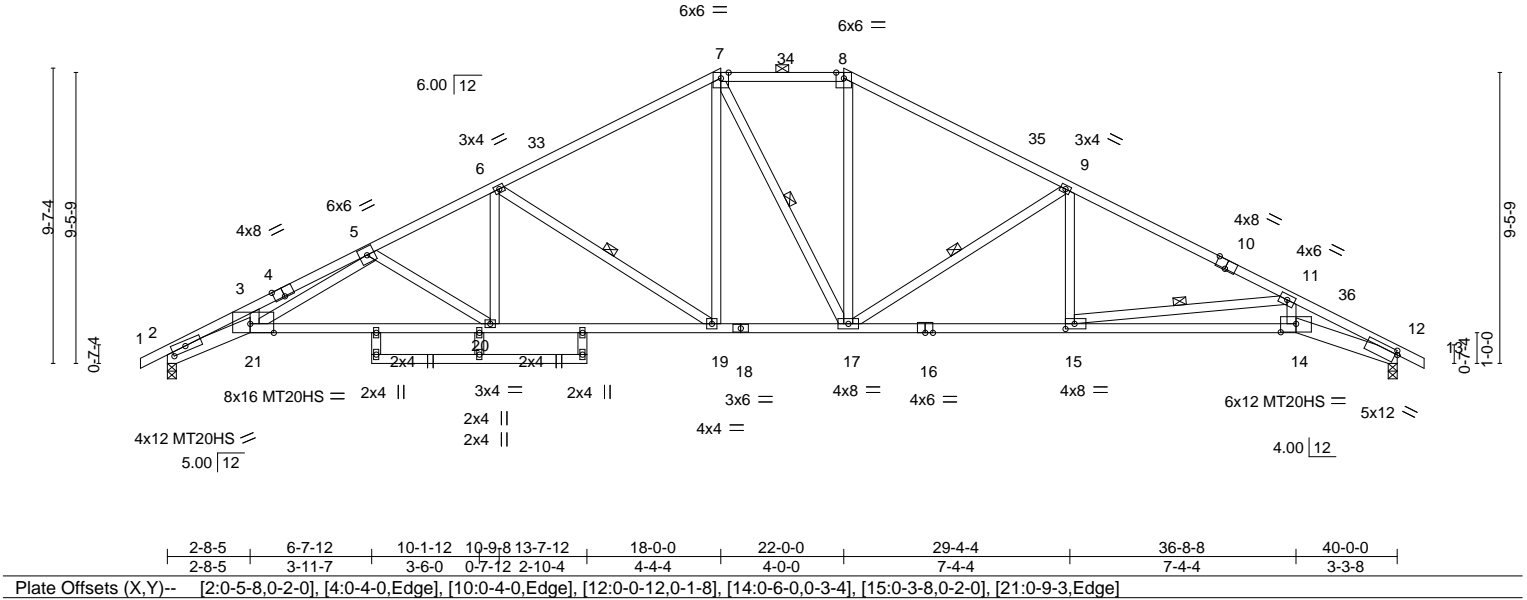
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:01 2021 Page 1

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-0-10-8	2-8-5	6-7-12	10-9-8	13-7-12	18-0-0	22-0-0	29-4-4	36-8-8	40-0-0	40-10-8
0-10-8	2-8-5	3-11-7	4-1-12	2-10-4	4-4-4	4-0-0	7-4-4	7-4-4	3-3-8	0-10-8

Scale = 1:74.9



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 0.90	Vert(LL)	-0.39 14-15	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.78 20-21	>617	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.49 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 202 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 4-7,1-4: 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-8-5 max.): 7-8.
BOT CHORD 2x4 SPF No.2 *Except* 2-21,12-14: 2x6 SPF 2100F 1.8E, 18-21: 2x4 SPF 1650F 1.5E 24-25,14-16: 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 6-19, 7-17, 9-17, 11-15

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=165(LC 12)
Max Uplift 2=321(LC 12), 12=321(LC 13)
Max Grav 2=1861(LC 1), 12=1861(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7084/1316, 3-5=-6738/1344, 5-6=-3549/615, 6-7=-2567/492, 7-8=-2184/489,
8-9=-2577/495, 9-11=-3600/580, 11-12=-6181/988
BOT CHORD 2-21=-1313/6421, 20-21=-742/3832, 19-20=-525/3124, 17-19=-234/2187,
15-17=-385/3165, 14-15=-810/5271, 12-14=-843/5576
WEBS 3-21=0/476, 6-19=-1098/342, 7-19=-137/692, 7-17=-260/248, 8-17=-124/725,
9-17=-1151/342, 9-15=-9/553, 11-15=-2127/477, 11-14=-119/1264, 6-20=-75/648,
5-21=-623/2658, 5-20=-836/256

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 2-10-1, Interior(1) 2-10-1 to 18-0-0, Exterior(2E) 18-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-7-14, Interior(1) 27-7-14 to 40-10-8 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.
- Bearing at joint(s) 2, 12 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 321 lb uplift at joint 2 and 321 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



March 8, 2021

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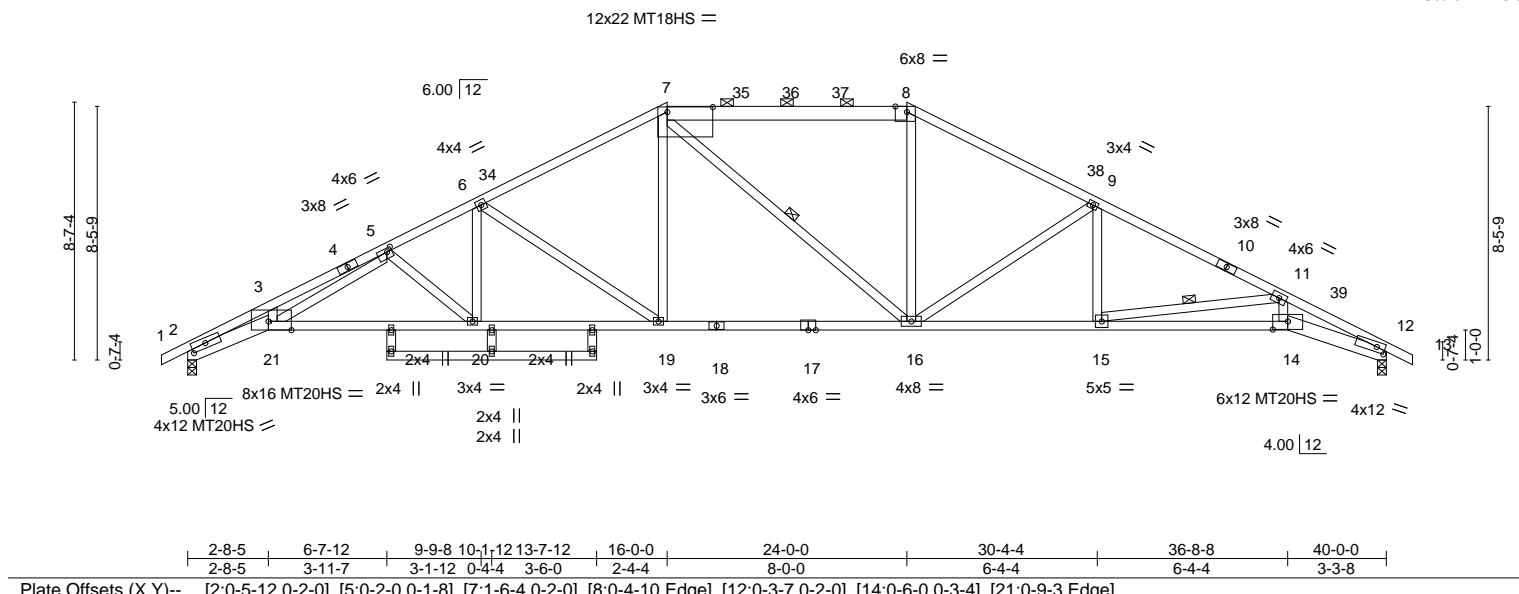
Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	145088523
2704670	A5	Hip	1	1		

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:03 2021 Page 1

0-10-8 2-8-5 6-7-12 9-9-8 13-7-12 16-0-0 24-0-0 30-4-4 36-8-8 40-0-0 40-10-8
0-10-8 2-8-5 3-11-7 3-1-12 3-10-4 2-4-4 8-0-0 6-4-4 6-4-4 3-3-8 0-10-8

Scale = 1:76.9



LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	in (loc)	l/defl	L/d	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(LL)	-0.38 20-21	>999 240	MT20HS	148/108	
BCLL	0.0	Rep Stress Incr	YES	WB	0.98	Vert(CT)	-0.77 16-19	>627 180	MT18HS	197/144	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS		Horz(CT)	0.47 12	n/a n/a	Weight: 199 lb	FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 7-8: 2x6 SPF No.2, 1-4,10-13: 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-11-10 max.): 7-8.
BOT CHORD 2x4 SPF No.2 *Except* 2-21,12-14: 2x6 SPF 2100F 1.8E, 18-21: 2x4 SPF 1650F 1.5E 14-17: 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 7-16, 11-15

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=147(LC 12)
Max Uplift 2=325(LC 12), 12=325(LC 13)
Max Grav 2=1861(LC 1), 12=1861(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6990/1298, 3-5=-6644/1328, 5-6=-3689/653, 6-7=-2811/525, 7-8=-2427/516,
8-9=-2822/527, 9-11=-3729/614, 11-12=-6146/993
BOT CHORD 2-21=-1278/6328, 20-21=-722/3828, 19-20=-550/3251, 16-19=-296/2431,
15-16=-425/3292, 14-15=-808/5221, 12-14=-845/5534
WEBS 3-21=0/475, 7-19=-103/673, 7-16=-262/254, 8-16=-83/713, 9-16=-1021/305,
9-15=-30/495, 11-15=-1955/433, 11-14=-129/1273, 6-19=-968/302, 6-20=-101/668,
5-20=-755/225, 5-21=-607/2560

- 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 2-10-1, Interior(1) 2-10-1 to 16-0-0, Exterior(2R) 16-0-0 to 21-7-14, Interior(1) 21-7-14 to 24-0-0, Exterior(2R) 24-0-0 to 29-7-14, Interior(1) 29-7-14 to 40-10-8 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.
 - Bearing at joint(s) 2, 12 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 325 lb uplift at joint 2 and 325 lb uplift at joint 12.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 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.



March 8, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088524
2704670	A6	Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:05 2021 Page 1

ID: ?30jNkFGYePzNd9PEe1z6czlwVq-AbRp?XV41yXrWlfj15ry3Ulc_WM7TfPkPjKybszd1em

Job Reference (optional)



Scale = 1:72.3

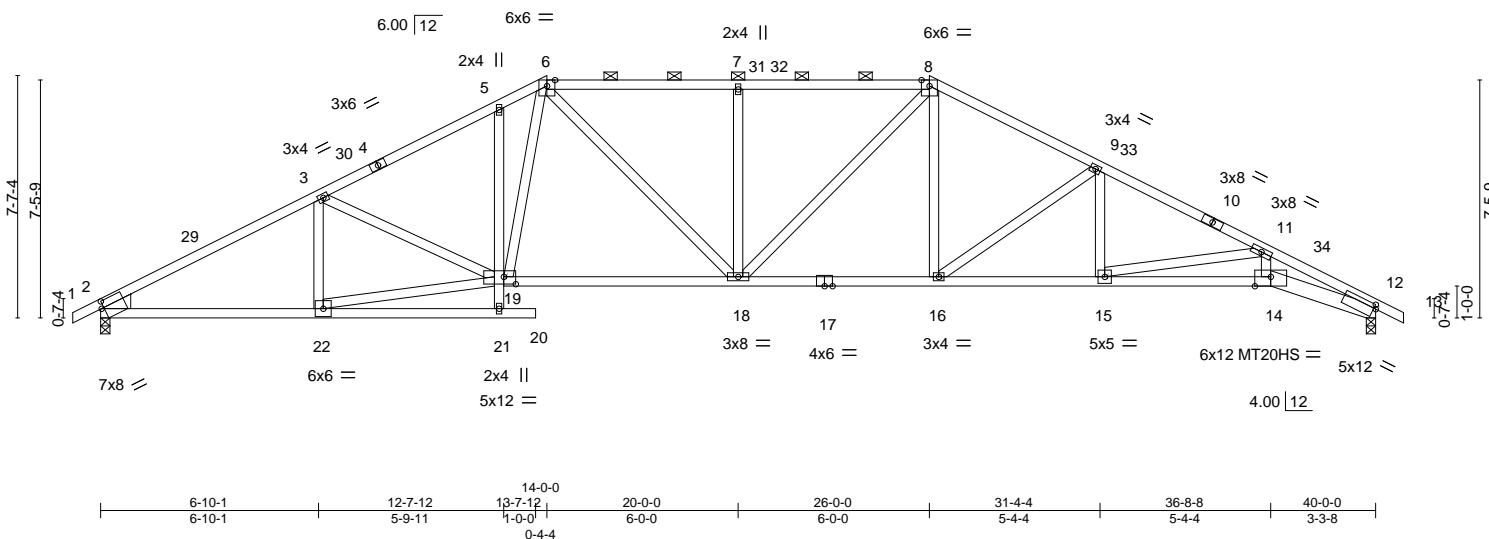


Plate Offsets (X,Y)--		[2:0-0-15,0-2-10], [12:0-0-12,0-1-8], [14:0-6-0,Edge], [19:0-4-8,0-2-12]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.33 16-18	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.65 18-19	>735	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.30 12	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				PLATES	GRIP		
				MT20	197/144		
				MT20HS	148/108		
				Weight: 189 lb	FT = 20%		

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 12-14: 2x6 SPF 2100F 1.8E, 14-17: 2x4 SP 2400F 2.0E
 WEBS 2x4 SPF No.2
 WEDGE
 Left: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 12=0-3-8
 Max Horz 2=129(LC 12)
 Max Uplift 2=323(LC 12), 12=326(LC 13)
 Max Grav 2=1875(LC 1), 12=1868(LC 1)

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

TOP CHORD 2-3=-3245/536, 3-5=-3235/550, 5-6=-3122/606, 6-7=-2990/559, 7-8=-2990/559,
 8-9=-3069/544, 9-11=-3915/631, 11-12=-6075/976
 BOT CHORD 2-22=-504/2798, 18-19=-348/2663, 16-18=-270/2664, 15-16=-447/3470, 14-15=-788/5172,
 12-14=-826/5464
 WEBS 7-18=-515/202, 8-16=-107/634, 9-16=-963/266, 9-15=-38/527, 11-15=-1734/376,
 11-14=-131/1196, 6-19=-193/749, 6-18=-156/633, 8-18=-156/640, 3-22=-391/138,
 19-22=-504/2760

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 3-1-8, Interior(1) 3-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-7-14, Interior(1) 19-7-14 to 26-0-0, Exterior(2R) 26-0-0 to 31-7-14, Interior(1) 31-7-14 to 40-10-8 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.
- Bearing at joint(s) 12 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 323 lb uplift at joint 2 and 326 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



March 8, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088525
2704670	A7	Hip	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:08 2021 Page 1
ID: ?30jNkFGYePzNd9PEe1z6czlwVq-bA7ydZYkTvPNpOliDPfg6w7JkOEg3sA6hZcCBzd1ej

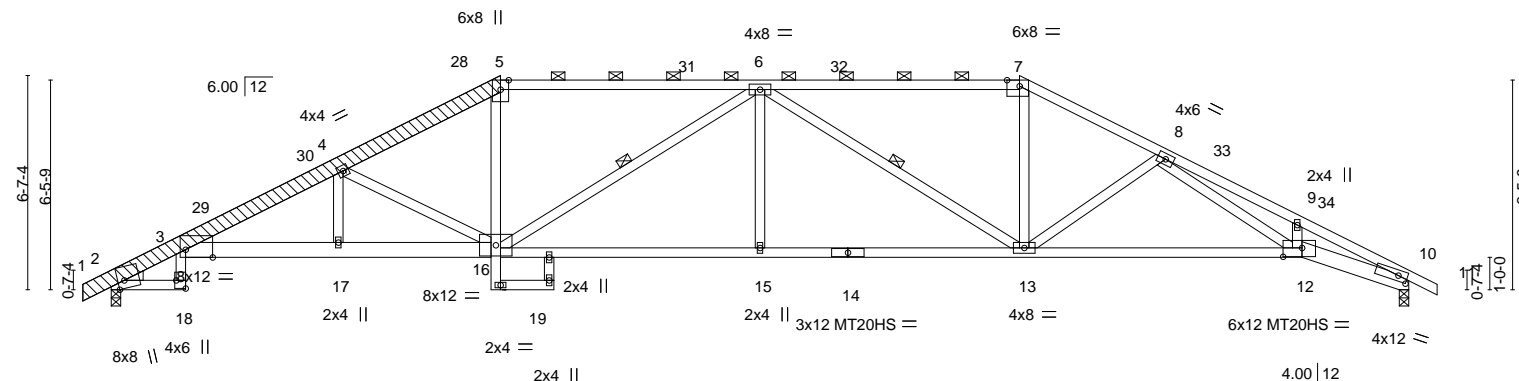
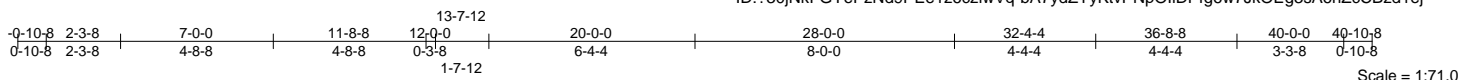


Plate Offsets (X,Y)--	[2:0-3-0,0-2-6], [3:0-10-0,Edge], [7:0-4-10,Edge], [10:0-3-7,0-2-0], [12:0-7-0,0-3-4], [18:Edge,0-3-8]
-----------------------	--

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 0.81	Vert(LL)	-0.46 15-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.94	Vert(CT)	-0.90 15-16	>536	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.55 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 206 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E *Except*
 1-5: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
 3-16,10-12: 2x6 SPF 2100F 1.8E, 12-14: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 1-5 2x6 SPF 2100F 1.8E one side
WEDGE
 Left: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
 2-0-0 oc purlins (2-11-1 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-13, 6-16

REACTIONS. (size) 2=0-3-8, 10=0-3-8
 Max Horz 2=115(LC 12)
 Max Uplift 2=247(LC 12), 10=247(LC 13)
 Max Grav 2=1861(LC 1), 10=1861(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-23=-1059/201, 3-4=-4502/704, 4-5=-3470/583, 5-6=-3006/549, 6-7=-2946/539,
 7-8=-3369/569, 8-9=-5977/929, 9-10=-6126/872
BOT CHORD 3-18=-68/468, 3-17=-561/4179, 16-17=-562/4186, 5-16=-125/1118, 15-16=-475/3575,
 13-15=-475/3574, 12-13=-497/3586, 10-12=-739/5503
WEBS 6-15=0/299, 7-13=-118/1049, 8-13=-753/245, 8-12=-303/2165, 6-13=-917/237,
 6-16=-845/218, 4-16=-1324/328, 4-17=0/293

- NOTES-**
- 1) Attached 14-7-8 scab 1 to 5, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except: starting at 0-0-4 from end at joint 1, nail 3 row(s) at 2" o.c. for 5-5-15; starting at 7-0-13 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-8-13.
 - 2) Unbalanced roof live loads have been considered for this design.
 - 3) 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 3-1-8, Interior(1) 3-1-8 to 12-0-0, Exterior(2R) 12-0-0 to 17-7-14, Interior(1) 17-7-14 to 28-0-0, Exterior(2R) 28-0-0 to 33-7-14, Interior(1) 33-7-14 to 40-10-8 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
 - 4) Provide adequate drainage to prevent water ponding.
 - 5) All plates are MT20 plates unless otherwise indicated.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 247 lb uplift at joint 2 and 247 lb uplift at joint 10.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and Conference signed and ANSI/TPI 1.



March 8, 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 #92/MO	I45088525
2704670	A7	Hip	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:08 2021 Page 2
ID:~30jNkFGYePzNd9PEe1z6czlwVq-bA7ydZYyKtvPNpOliDPfg6w7JkOEg3sA6hZcCBzd1ej

NOTES-

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	145088526
2704670	A8	Hip	1	1		

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:11 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-?lp4GbarcoH_EG7sNLYMlIXfDxYitQVdofnHoWzd1eg

-0-10-8 2-3-8 10-0-0 11-8-8 13-8-0 19-1-5 21-0-0 24-6-11 30-0-0 36-8-8 40-0-0 49-10-8
0-10-8 2-3-8 7-8-8 1-8-8 1-11-8 5-5-5 1-10-11 3-6-11 5-5-5 6-8-8 3-3-8 0-10-8

Scale = 1:72.3

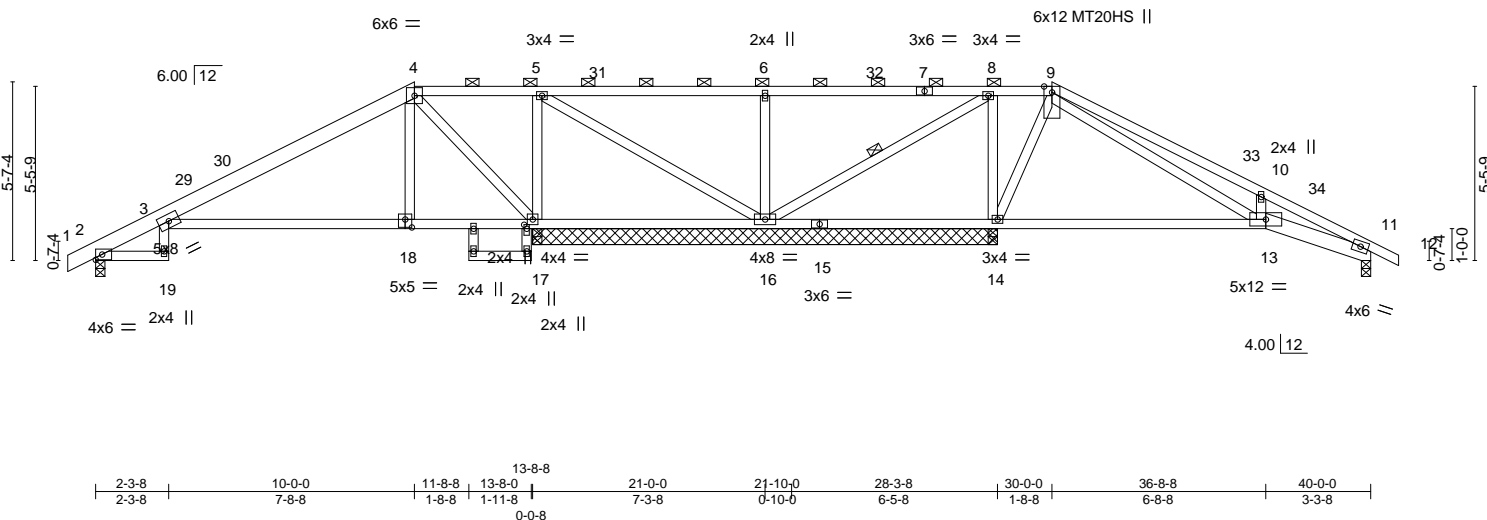


Plate Offsets (X,Y)--		[17:0-1-8,0-1-0], [18:0-2-8,0-3-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.77	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.44	Vert(LL) -0.13 3-18 >999 240
BCLL 0.0	Rep Stress Incr YES	WB 0.68	Vert(CT) -0.27 3-18 >613 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.09 17 n/a n/a
			PLATES
			MT20 197/144
			MT20HS 148/108
			Weight: 168 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except
1-4: 2x6 SPF No.2	2-0-0 oc purlins (9-11-12 max.): 4-9.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
11-13: 2x6 SPF No.2	WEBS 1 Row at midpt 8-16
WEBS 2x4 SPF No.2	

REACTIONS. All bearings 14-7-0 except (jt=length) 2=0-3-8, 11=0-3-8.
(lb) - Max Horz 2=97(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 11 except 17=351(LC 12), 14=190(LC 13), 16=237(LC 8)
Max Grav All reactions 250 lb or less at joint(s) except 2=253(LC 25), 11=305(LC 26), 17=1799(LC 25), 17=1745(LC 1), 14=1284(LC 26), 14=1195(LC 1), 16=422(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-254/772, 4-5=-335/1395, 5-6=-113/744, 6-8=-113/744, 8-9=-66/808,
9-10=-720/301, 10-11=-576/128
BOT CHORD 3-18=-572/252, 17-18=-580/248, 16-17=-1395/456, 14-16=-807/281, 13-14=-511/194,
11-13=-67/523
WEBS 4-18=0/259, 10-13=-415/244, 5-17=-823/211, 8-14=-457/166, 4-17=-1201/306,
6-16=-535/219, 5-16=-257/876, 8-16=-235/292, 9-14=-736/216, 9-13=-351/1201

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 3-1-8, Interior(1) 3-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 15-7-14, Interior(1) 15-7-14 to 30-0-0, Exterior(2R) 30-0-0 to 35-7-14, Interior(1) 35-7-14 to 40-10-8 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) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) 11 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) 2, 11 except (jt=lb) 17=351, 14=190, 16=237.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 8, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088527
2704670	A9	Hip	1	1		

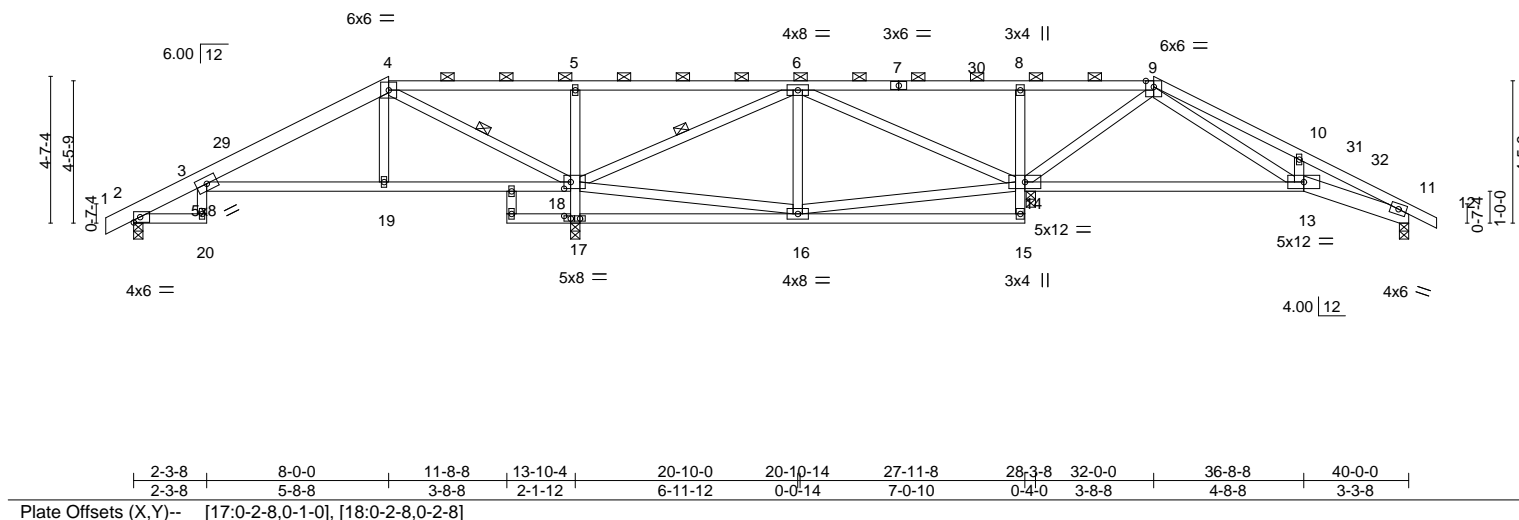
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:13 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-x8wrgGc58PXiUaHFVm_qNAd_fIC?LIbWfzGntOzd1ee

0-10-8 2-3-8 8-0-0 11-8-8 13-10-4 17-1-8 20-10-0 22-6-8 27-11-8 32-0-0 36-8-8 40-0-0 40-10-8
0-10-8 2-3-8 5-8-8 3-8-8 2-1-12 3-3-4 3-8-8 1-8-8 5-5-0 4-0-8 4-8-8 3-3-8 0-10-8

Scale = 1:72.3



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 0.77	Vert(LL)	-0.16 13-14	>938	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.32 13-14	>453	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.80	Horz(CT)	0.10 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 178 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-4: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (10-0-0 max.): 4-9.
BOT CHORD 2x4 SPF No.2 *Except* 11-13: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 4-18, 6-18

REACTIONS. All bearings 0-3-8.
(lb) - Max Horz 2=80(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2 except 14=264(LC 8), 11=109(LC 13), 17=330(LC 9)
Max Grav All reactions 250 lb or less at joint(s) except 2=383(LC 25), 14=1398(LC 26), 11=398(LC 26), 17=1718(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-248/1223, 5-6=-242/1196, 6-8=-44/745, 8-9=-60/770, 9-10=-918/282, 10-11=-865/161
BOT CHORD 16-17=-256/49, 8-14=-416/175, 11-13=-88/771
WEBS 4-19=0/290, 4-18=-1363/266, 9-14=-845/179, 10-13=-253/173, 6-16=0/338, 17-18=-1683/356, 5-18=-472/195, 9-13=-230/1016, 6-14=-785/202, 6-18=-1177/222

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 13-10-4, Interior(1) 13-10-4 to 32-0-0, Exterior(2R) 32-0-0 to 37-7-14, Interior(1) 37-7-14 to 40-10-8 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 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 11, 17 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) 2 except (jt=lb) 14=264, 11=109, 17=330.
- This truss 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.



March 8, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss A10	Truss Type Hip Girder	Qty 1	Ply 2	SUMMIT/STONE CREEK #92/MO I45088528
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:37:54 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czwVq-?UHfhnNAda8OifKbtH9N69Ko54jGOS17iWAti?zd1ex

0-10-8 2-3-8 6-0-0 10-0-0 11-8-8 13-10-4 17-1-8 18-2-6 22-6-8 27-11-8 30-11-12 34-0-0 36-8-8 40-0-0 49-10-8
0-10-8 2-3-8 3-8-8 4-0-0 1-8-8 2-1-12 3-3-4 1-0-14 4-4-2 5-5-0 3-0-4 3-0-4 2-8-8 3-3-8 0-10-8

Scale = 1:72.3

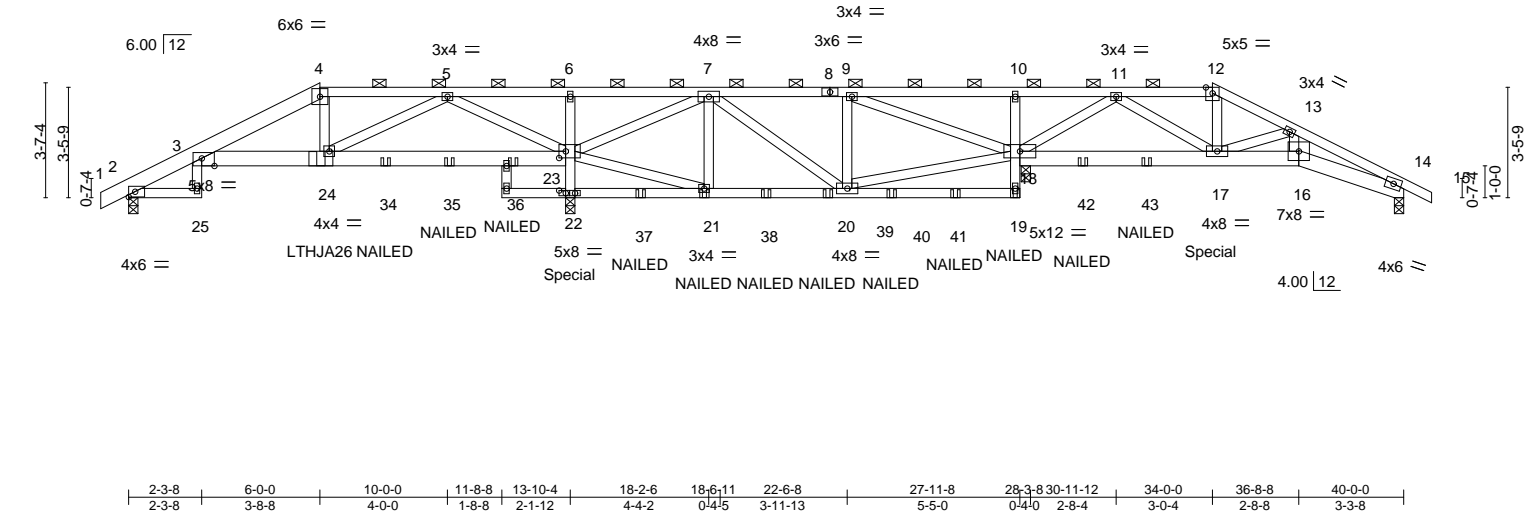


Plate Offsets (X,Y)-- [3:0-4-12,Edge], [22:0-2-8,0-1-0], [23:0-2-8,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.06 3-24	l/defl	L/d
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.11 3-24	>999	240
BCLL	0.0	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.07 14	n/a	180
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS					
								Weight: 371 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-4: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-12.
BOT CHORD 2x4 SPF No.2 *Except* 3-23,16-18,14-16: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS.	All bearings 0-3-8.
(lb) - Max Horz	2=62(LC 8)
Max Uplift	All uplift 100 lb or less at joint(s) except 2=-164(LC 8), 18=-490(LC 4), 22=-590(LC 5), 14=-178(LC 9)
Max Grav	All reactions 250 lb or less at joint(s) except 2=705(LC 21), 18=1896(LC 22), 22=2335(LC 21), 14=681(LC 22)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-29=-346/129, 3-4=-1364/327, 4-5=-1237/323, 5-6=-409/1837, 6-7=-396/1794, 9-10=-194/1004, 10-11=-206/1018, 11-12=-1034/296, 12-13=-1185/313, 13-14=-1771/439
BOT CHORD	3-24=-275/1215, 21-22=-344/89, 20-21=-255/176, 10-18=-336/134, 16-17=-318/1481, 14-16=-339/1575
WEBS	4-24=-137/276, 9-18=-1194/328, 12-17=-83/302, 13-17=-459/163, 13-16=-48/310, 22-23=-2299/603, 6-23=-320/126, 7-21=-41/276, 7-20=-95/391, 7-23=-1735/428, 11-18=-1413/366, 11-17=-246/1040, 5-23=-2000/528, 5-24=-374/1514

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 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 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 22, 14 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 164 lb uplift at joint 2, 490 lb uplift at joint 18, 590 lb uplift at joint 22 and 178 lb uplift at joint 14.

Continued on page 2



March 8, 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088528
2704670	A10	Hip Girder	1	2	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:37:54 2021 Page 2
ID:730jNkFGYePzNd9PEe1z6cziwVq-?UHfhnNAda8OifKbtH9N69Ko54jGOs17tWAti?zd1ex

NOTES-

- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Use Simpson Strong-Tie LTHJA26 (LTHJA26 on 2 ply, Right Hand Hip) or equivalent at 6'-0" from the left end to connect truss(es) to back face of bottom chord.
- 13) Fill all nail holes where hanger is in contact with lumber.
- 14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 72 lb down and 35 lb up at 13'-10"-4, and 445 lb down and 192 lb up at 33'-11"-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-3=-70, 3-4=-70, 4-12=-70, 12-15=-70, 25-28=-20, 3-23=-20, 19-22=-20, 16-18=-20, 16-31=-20
 - Concentrated Loads (lb)
 - Vert: 23=-72(B) 19=-72(B) 24=-477(B) 17=-445(B) 21=-72(B) 34=-63(B) 35=-63(B) 36=-72(B) 37=-72(B) 38=-72(B) 39=-72(B) 40=-72(B) 41=-72(B) 42=-65(B) 43=-65(B)

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 #92/MO	I45088529
2704670	B1	Roof Special	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:15 2021 Page 1
 ID:730jNkFGYePzNd9PEe1z6czlwVq-uW2b5ydLg1nQjuQecB11TbiPNYxipE4CjHmUxHzd1ec
 Job Reference (optional)
 0-10-8 4-8-13 9-5-4 13-7-0 14-8-10 20-0-0 20-4-4 26-8-8 33-0-12 39-8-8
 0-10-8 4-8-13 4-8-7 4-1-12 1-1-10 5-3-6 0-4-4 6-4-4 6-4-4 6-7-12
 6x6 = Scale = 1:78.8

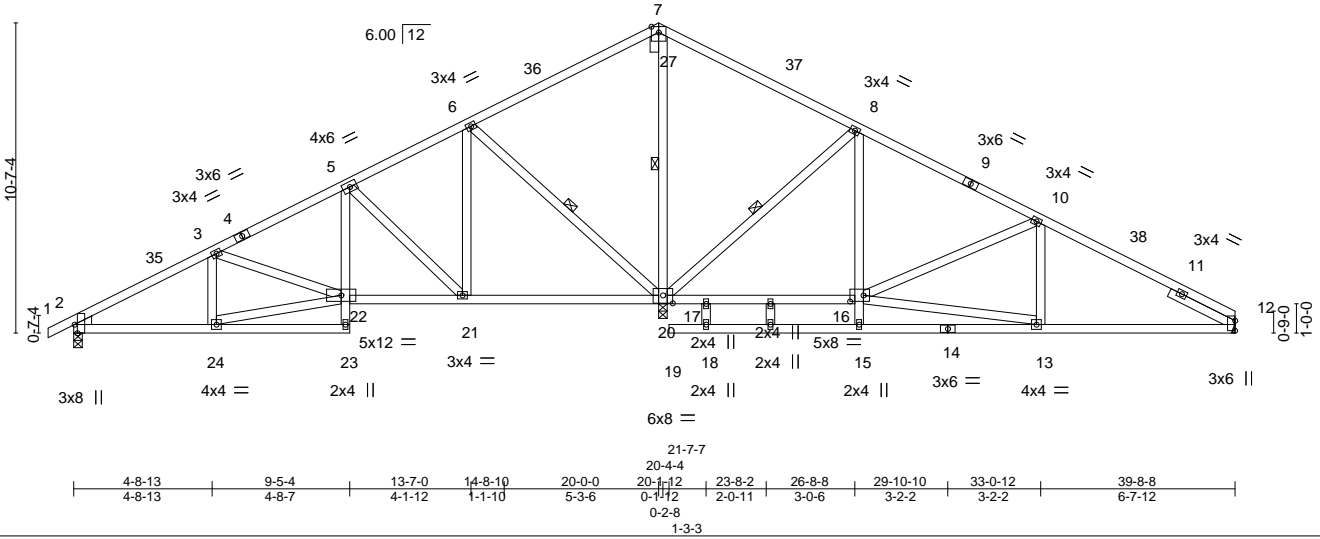


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [12:0-4-1,0-0-1], [16:0-5-8,0-2-8], [20:0-4-0,0-3-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1.15		TC	0.50	Vert(LL)	-0.04 20-21	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.31	Vert(CT)	-0.08 20-21	>999	180		
BCLL	0.0	Rep Stress Incr YES		WB	0.64	Horz(CT)	0.02 20	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 197 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
 SLIDER Right 2x4 SPF No.2 -t 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied. Except:
 6-0-0 oc bracing: 17-20
 WEBS 1 Row at midpt 7-20, 8-20, 6-20

REACTIONS.

(size) 2=0-3-8, 12=Mechanical, 20=0-3-8
 Max Horz 2=195(LC 12)
 Max Uplift 2=151(LC 12), 12=176(LC 13), 20=324(LC 12)
 Max Grav 2=766(LC 25), 12=707(LC 26), 20=2324(LC 1)

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

TOP CHORD 2-3=-1078/204, 3-5=-843/206, 5-6=-347/139, 6-7=-31/674, 7-8=-8/692, 8-10=-470/208,
 10-12=-889/274
 BOT CHORD 2-24=-301/906, 5-22=-71/345, 21-22=-204/685, 20-21=-63/269, 12-13=-160/795,
 17-20=-141/341, 16-17=-141/341
 WEBS 7-20=-975/130, 8-16=-49/478, 8-20=-921/309, 6-21=-88/516, 6-20=-914/315,
 5-21=-573/201, 3-22=-264/99, 22-24=-304/860, 13-16=-159/790, 10-16=-550/203

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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 3-1-2, Interior(1) 3-1-2 to 20-0-0, Exterior(2R) 20-0-0 to 23-11-10, Interior(1) 23-11-10 to 39-8-8 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) The Fabrication Tolerance at joint 7 = 12%
- 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) 20 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) 2=151, 12=176, 20=324.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



March 8, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2704670	Truss B2	Truss Type Hip	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO 145088530
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:22 2021 Page 1

0-10-8 4-8-13 9-5-4 13-8-10 18-0-0 20-4-4 22-0-0 26-8-7 27-9-11 33-7-5 39-8-8
0-10-8 4-8-13 4-8-7 4-3-6 4-3-6 2-4-4 1-7-12 4-8-7 1-1-3 5-9-11 6-1-3

ID:730jNkFGYePzNd9PEe1z6czlwVq-BtzFZlik1AgQ3zT_W9fxF3VcRNKCyNIEKtyMhNzd1eV

Job Reference (optional)

Scale = 1:81.4

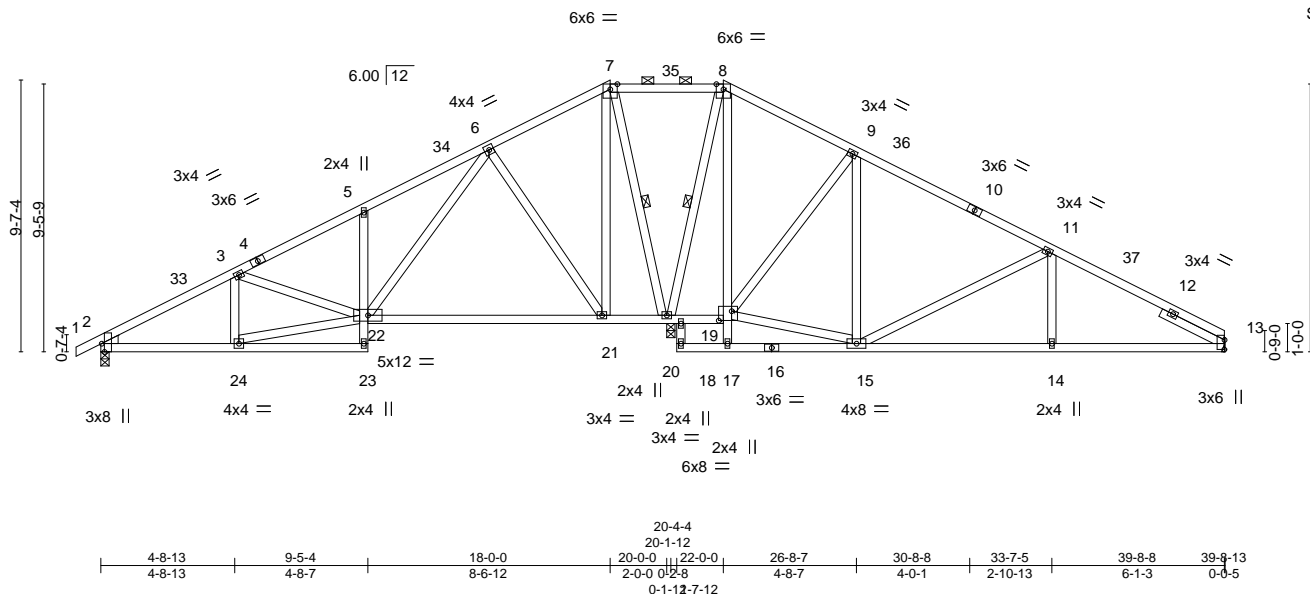


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [13:0-4-1,0-0-1], [19:0-5-8,0-4-0]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.09 21-22	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.20 21-22	>999	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.02 20	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				Weight: 213 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 "Except"	2-0-0 oc purlins (10-0-0 max.): 7-8.
19-22: 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 7-20, 8-20
WEDGE	
Left: 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 -t 2-6-0	

REACTIONS. (size) 2=0-3-8, 13=Mechanical, 20=0-3-8
Max Horz 2=176(LC 12)
Max Uplift 2=147(LC 12), 13=-167(LC 13), 20=-336(LC 12)
Max Grav 2=718(LC 25), 13=671(LC 26), 20=2456(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-984/194, 3-5=-735/183, 5-6=-741/279, 6-7=0/575, 7-8=-2/765, 8-9=-30/588,
9-11=-344/228, 11-13=-871/267
BOT CHORD 2-24=-274/822, 5-22=-317/169, 20-21=-475/268, 19-20=-497/224, 14-15=-163/779,
13-14=-163/779
WEBS 6-22=-257/879, 6-21=-702/284, 7-21=-155/704, 8-19=-144/671, 3-22=-290/109,
22-24=-248/840, 7-20=-1229/259, 8-20=-1166/202, 9-15=-66/440, 9-19=-785/282,
11-15=-662/232, 11-14=0/265

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-1-2, Interior(1) 3-1-2 to 18-0-0, Exterior(2E) 18-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-7-6, Interior(1) 27-7-6 to 39-8-8 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=147, 13=167, 20=336.
- This truss 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.



March 8, 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 2704670	Truss B4	Truss Type Hip	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO 145088532
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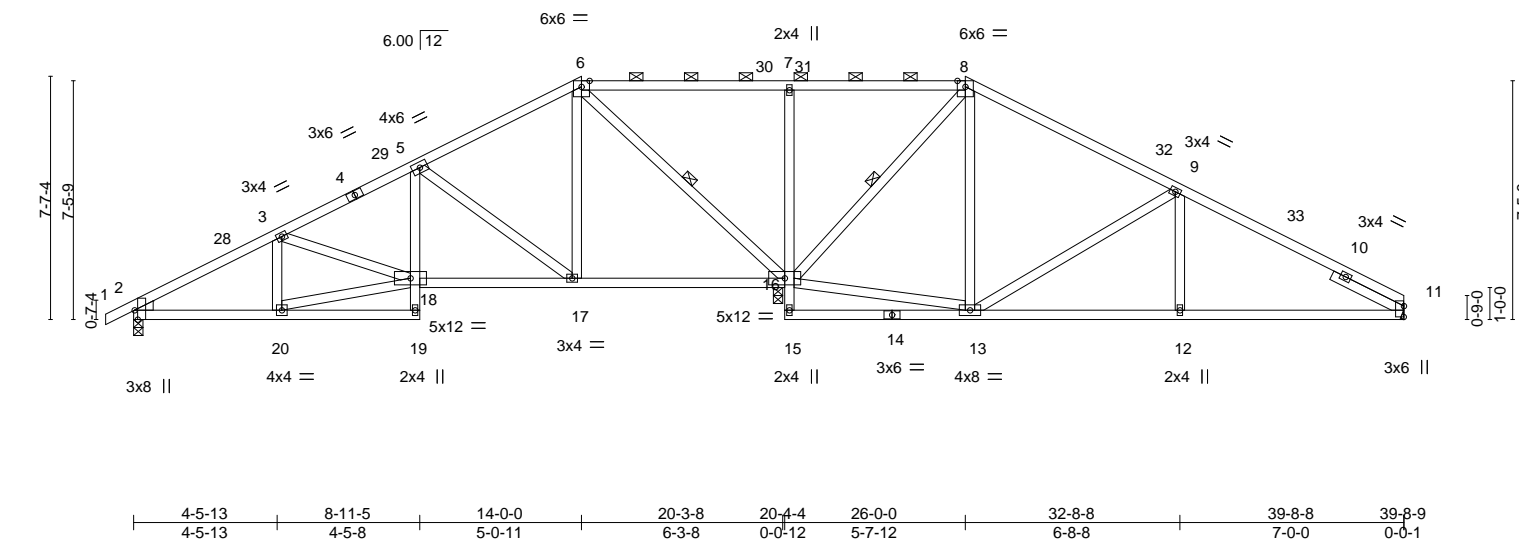
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:29 2021 Page 1

ID:730JnKFGYePzNd9PEe1z6czWVq-TDuu1ko7NKYRP2VKR7Ha1YHmsBiZ5ZcGxS9DRTzd1eO

-0-10-8	4-5-13	8-11-5	14-0-0	20-4-4	26-0-0	32-8-8	39-8-8
0-10-8	4-5-13	4-5-8	5-0-11	6-4-4	5-7-12	6-8-8	7-0-0

Scale = 1:72.0



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 0.63	Vert(LL)	-0.04 16-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.09 16-17	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.03 16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 184 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
SLIDER Right 2x4 SPF No.2 t 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (10-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-16, 8-16

REACTIONS.

(size) 11=Mechanical, 2=0-3-8, 16=0-3-8
Max Horz 2=140(LC 12)
Max Uplift 11=185(LC 13), 2=176(LC 12), 16=314(LC 12)
Max Grav 11=700(LC 26), 2=793(LC 25), 16=2241(LC 1)

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

TOP CHORD 2-3=-1133/251, 3-5=-982/270, 5-6=-381/160, 6-7=-21/679, 7-8=-26/687, 8-9=-339/220,
9-11=-872/295
BOT CHORD 2-20=-290/954, 5-18=-57/348, 17-18=-227/837, 16-17=-25/259, 7-16=-463/197,
12-13=-177/780, 11-12=-177/780
WEBS 5-17=-701/250, 6-17=-91/541, 6-16=-1207/278, 8-16=-1110/209, 8-13=-78/476,
9-13=-692/246, 9-12=0/273, 18-20=-279/904

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 3-1-2, Interior(1) 3-1-2 to 14-0-0, Exterior(2R) 14-0-0 to 19-7-6, Interior(1) 19-7-6 to 26-0-0, Exterior(2R) 26-0-0 to 31-7-6, Interior(1) 31-7-6 to 39-8-8 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) 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) 11=185, 2=176, 16=314.
- 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.



March 8, 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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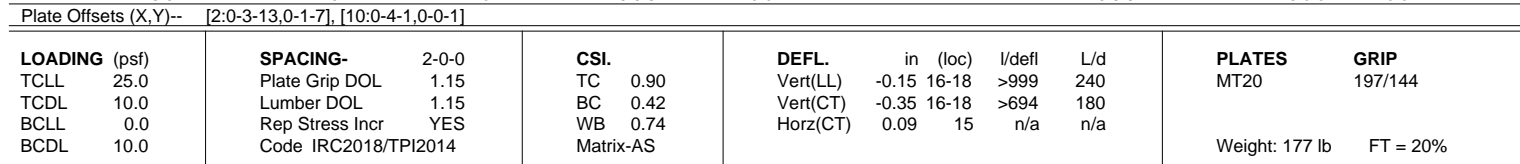
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:31 2021 Page 1

ID: ?30JnkFGYePzNd9PFe1z6czlwVq-Qb0eSQpOvx08elJfYYJ26zM28?NgZSZZOmeKWMzd1eM

-Q-10-8	2-8-5	7-4-2	12-0-0	16-2-2	20-4-4	28-0-0	33-8-8	39-8-8
0-10-8	2-8-5	4-7-14	4-7-14	4-2-2	4-2-2	7-7-12	5-8-8	6-0-0

Scale = 1:70.8



REACTIONS. (size) 10=Mechanical, 2=0-3-8, 15=0-3-8
 Max Horz 2=122(LC 12)
 Max Uplift 10=-184(LC 13), 2=-148(LC 12), 15=-378(LC 12)
 Max Grav 10=647(LC 26), 2=698(LC 25), 15=2421(LC 1)

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

TOP CHORD 2-3=-2272/527, 3-4=-2240/622, 4-5=-403/120, 5-6=-169/1104, 6-7=-181/1118,
 7-8=-404/241, 8-10=-810/297

BOT CHORD 2-18=-555/2070, 16-18=-219/773, 15-16=-27/287, 6-15=-628/263, 11-12=-188/724,
 10-11=-188/724

WEBS 7-15=-1429/238, 7-12=-38/470, 8-12=-548/196, 5-15=-1578/367, 5-16=-51/549,
 4-16=-558/246, 4-18=-400/1431

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 2-10-1, Interior(1) 2-10-1 to 12-0-0, Exterior(2R) 12-0-0 to 17-7-6, Interior(1) 17-7-6 to 28-0-0, Exterior(2R) 28-0-0 to 33-8-8, Interior(1) 33-8-8 to 39-8-8 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) 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) 2 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) 10=184, 2=148, 15=378.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 8, 2021

Job 2704670	Truss B6	Truss Type Hip	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088534
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:33 2021 Page 1

ID: ?30jNkFGYePzNd9PEe1z6czlwVq_M_8Pt6reRY2stfo5gzLBOSRYp_11Nsr47RaEzd1eK

-0-10-8	2-8-5	6-4-2	10-0-0	15-2-2	20-4-4	25-2-2	30-0-0	34-8-8	39-8-8
0-10-8	2-8-5	3-7-14	3-7-14	5-2-2	5-2-2	4-9-14	4-9-14	4-8-8	5-0-0

Scale = 1:72.0

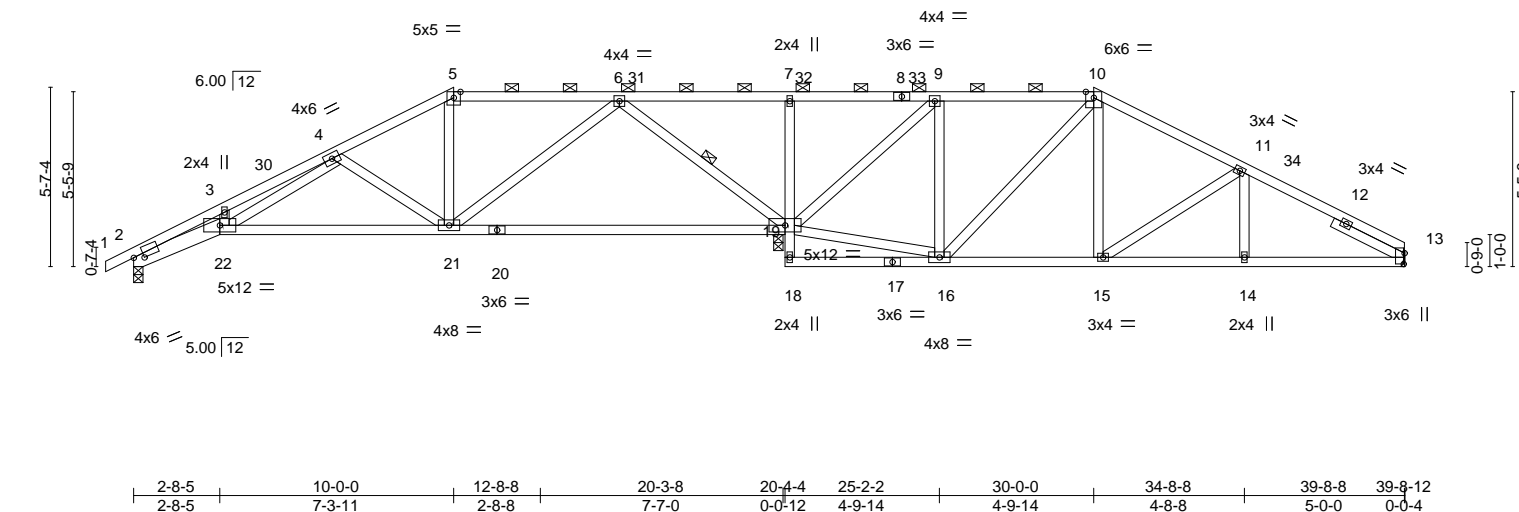


Plate Offsets (X,Y)-- [2:0-3-13,0-1-7], [13:0-4-1,0-0-5]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.20	19-21	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.42	19-21	>592	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.07	19	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 177 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-22: 2x6 SPF No.2, 19-20: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 -t 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 5-10.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-19

REACTIONS. (size) 13=Mechanical, 2=0-3-8, 19=0-3-8
Max Horz 2=105(LC 12)
Max Uplift 13=183(LC 13), 2=163(LC 12), 19=372(LC 9)
Max Grav 13=646(LC 26), 2=723(LC 25), 19=2361(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2285/579, 3-4=-2213/637, 4-5=-691/191, 5-6=-569/199, 6-7=-222/1289,
7-8=-220/1297, 9-10=-85/292, 10-11=-541/262, 11-13=-849/298
BOT CHORD 2-22=-582/2073, 21-22=-272/994, 7-19=-352/141, 15-16=-73/413, 14-15=-200/760,
13-14=-200/760
WEBS 10-15=-43/336, 6-21=-133/836, 6-19=-1474/400, 9-16=-73/636, 10-16=-691/119,
9-19=-1458/268, 4-22=-357/1180, 4-21=-515/224, 11-15=-425/150

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-10-1, Interior(1) 2-10-1 to 10-0-0, Exterior(2R) 10-0-0 to 15-7-6, Interior(1) 15-7-6 to 30-0-0, Exterior(2R) 30-0-0 to 35-7-6, Interior(1) 35-7-6 to 39-8-8 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
 - 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) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=183, 2=163, 19=372.
 - This truss 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.



March 8, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	145088535
2704670	B7	Roof Special	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:43 2021 Page 1

ID: ?30jNkFGYePzNd9PEe1z6czlwVq-3vkBzXzv4dJR4BZ0F4XsbUsCLrUENT_K9eYzxfzd1eA

0-10-8	2-8-5	8-0-0	13-4-8	16-6-0	19-7-8	20-4-4	24-3-14	28-0-0	30-0-0	34-8-8	39-8-8
0-10-8	2-8-5	5-3-11	5-4-8	3-1-8	3-1-8	0-8-12	3-11-10	3-8-2	2-0-0	4-8-8	5-0-0

Scale = 1:73.3

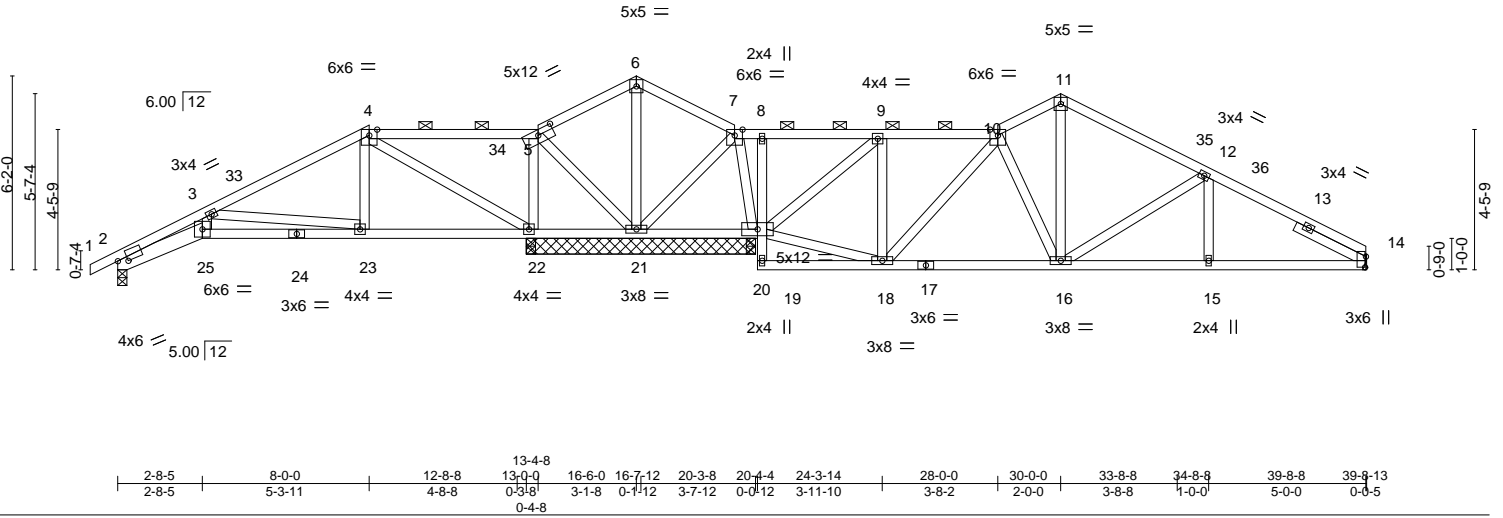


Plate Offsets (X, Y)--		[2:0-3-13,0-1-7], [5:0-6-0,0-2-0], [14:0-4-1,0-0-5]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.05	23-25	>999	240	197/144		
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.11	23-25	>999	180			
BCLL 0.0	Rep Stress Incr	YES	WB 0.71	Horz(CT)	0.05	14	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS								
										Weight: 183 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 2-25: 2x6 SPF No.2
 WEBS 2x4 SPF No.2
 SLIDER Right 2x4 SPF No.2 -t 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
 2-0-0 oc purlins (6-0-0 max.): 4-5, 7-10.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS.

All bearings 7-3-8 except (jt=length) 14=Mechanical, 2=0-3-8.
 (lb) - Max Horz 2=117(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 21 except 14=175(LC 13), 22=308(LC 12), 20=310(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 21 except 14=772(LC 26), 2=475(LC 25), 22=1193(LC 25), 22=1134(LC 1), 20=1312(LC 26), 20=1169(LC 1)

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

TOP CHORD 2-3=-1334/329, 3-4=-292/84, 4-5=-184/732, 5-6=-68/452, 6-7=-58/462, 7-8=-56/580,
 8-9=-52/570, 9-10=-327/158, 10-11=-743/258, 11-12=-790/243, 12-14=-1116/285
 BOT CHORD 2-25=-377/1228, 23-25=-353/1103, 21-22=-710/235, 20-21=-538/184, 16-18=-91/677,
 15-16=-189/965, 14-15=-189/965
 WEBS 3-25=-62/384, 4-23=-6/319, 3-23=-913/346, 5-22=-546/187, 5-21=-122/536,
 6-21=-569/115, 7-21=-32/343, 4-22=-1066/298, 7-20=-300/104, 11-16=-120/398,
 12-16=-387/161, 9-18=-52/428, 18-20=-17/359, 9-20=-1127/271, 10-18=-547/131

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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 2-10-1, Interior(1) 2-10-1 to 8-0-0, Exterior(2R) 8-0-0 to 11-11-10, Interior(1) 11-11-10 to 16-6-0, Exterior(2E) 16-6-0 to 19-7-8, Interior(1) 19-7-8 to 30-0-0, Exterior(2R) 30-0-0 to 33-11-10, Interior(1) 33-11-10 to 39-8-8 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
- 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) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 21 except (jt=lb) 14=175, 22=308, 20=310.
- This truss 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.



March 8, 2021

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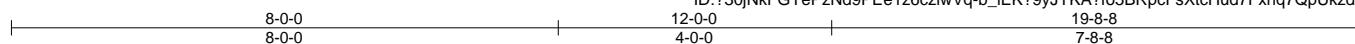
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088536
2704670	B8	Hip	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:59 2021 Page 1

ID:??30jNkFGYePzNd9PEe1z6czlwVq-b_iEK?9yJYKA?fo5BRpcFsXtcHud7Fhxq7QpUkd1dw



Scale = 1:33.7

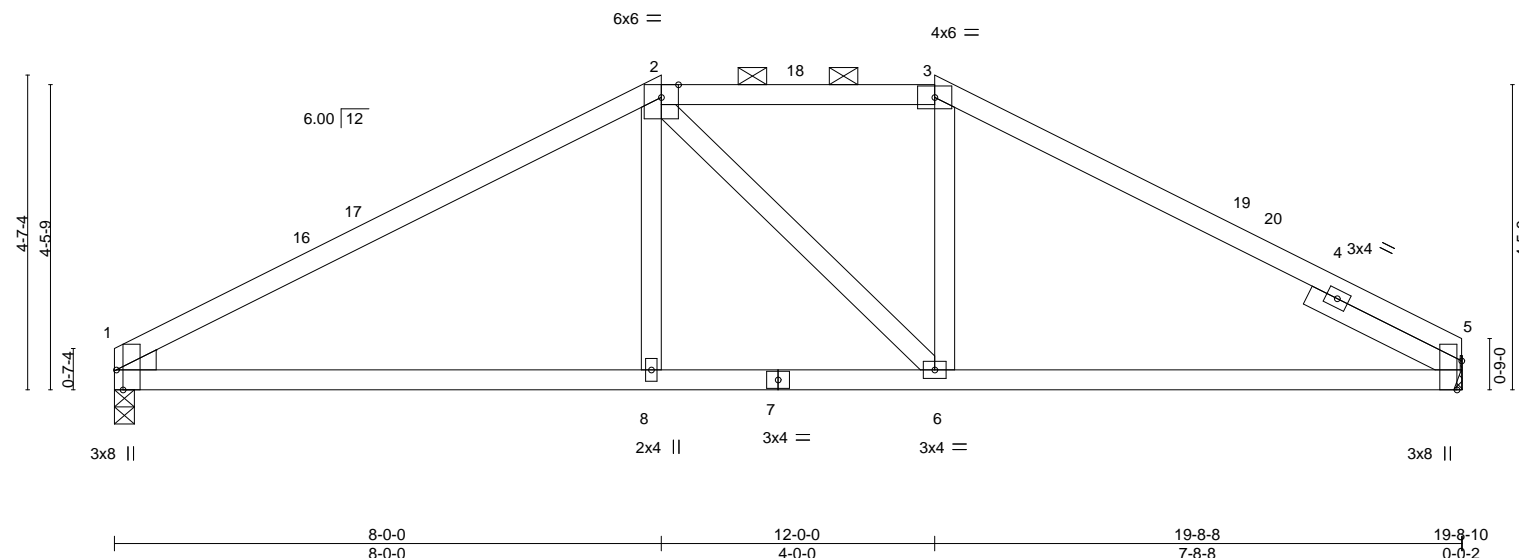


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [5:0-5-1,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	0.10 8-15	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.19 8-15	>999	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.03 5	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 66 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 (5-4-6 max.): 2-3.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEDGE	
Left: 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 -t 2-6-0	

REACTIONS. (size) 5=Mechanical, 1=0-3-8
Max Horz 1=73(LC 12)
Max Uplift 5=149(LC 13), 1=151(LC 12)
Max Grav 5=887(LC 1), 1=887(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=1308/290, 2-3=1036/312, 3-5=1203/286
BOT CHORD 1-8=179/1071, 6-8=180/1066, 5-6=166/1041

- 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 3-0-0, Interior(1) 3-0-0 to 8-0-0, Exterior(2E) 8-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-2-15, Interior(1) 16-2-15 to 19-8-8 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
 - 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) 5=149, 1=151.
 - This truss 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.



March 8, 2021

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

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

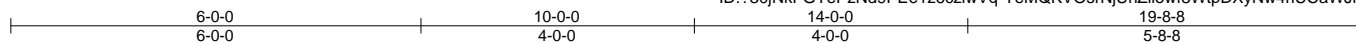


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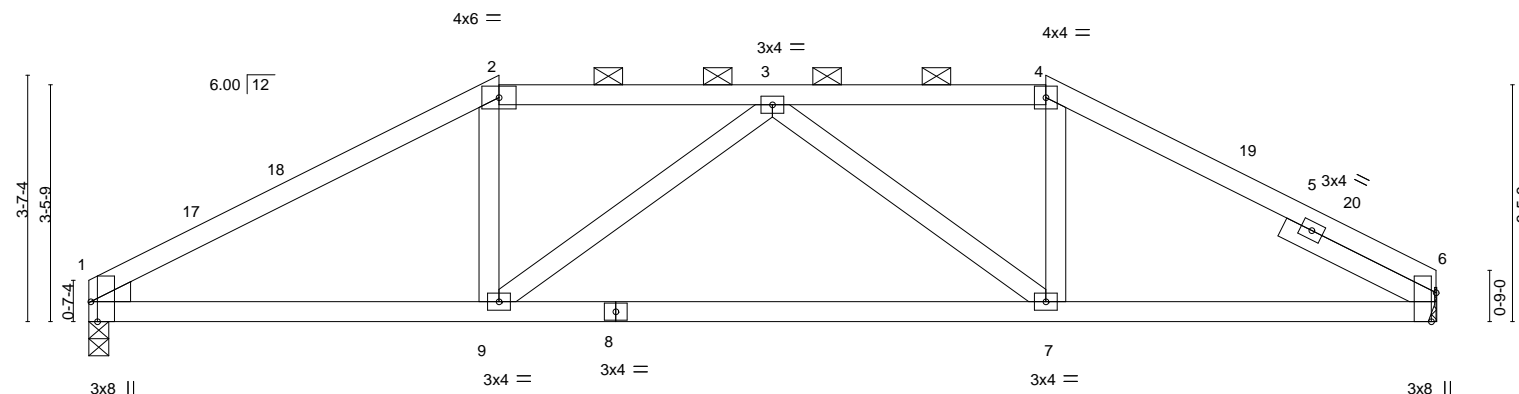
Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088537
2704670	B9	Hip	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:18 2021 Page 1
ID:730jNkFGYePzNd9PEe1z6czlwVq-YeMQKVOSrNjUnZllowf3WtpDXyNw4rUCaWJf7zd1dd



Scale = 1:33.7



6-0-0 6-0-0	14-0-0 8-0-0	19-8-8 5-8-8	19-8-10 0-0-2
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Plate Offsets (X,Y)-- [1:0-3-8,Edge], [6:0-5-1,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 0.30	Vert(LL)	-0.13	7-9	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.27	7-9	>873	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.04	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 68 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
SLIDER Right 2x4 SPF No.2 - t 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (5-3-6 max.): 2-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 6=Mechanical, 1=0-3-8
Max Horz 1=54(LC 12)
Max Uplift 6=152(LC 13), 1=154(LC 12)
Max Grav 6=887(LC 1), 1=887(LC 1)

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

TOP CHORD 1-2=-1433/286, 2-3=-1196/296, 3-4=-1146/285, 4-6=-1343/281
BOT CHORD 1-9=-191/1207, 7-9=-246/1378, 6-7=-177/1158
WEBS 2-9=-14/341, 4-7=-16/358, 3-9=-343/137, 3-7=-394/141

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 3-0-0, Interior(1) 3-0-0 to 6-0-0, Exterior(2R) 6-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-0-0, Exterior(2R) 14-0-0 to 18-2-15, Interior(1) 18-2-15 to 19-8-8 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
- 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) 6=152, 1=154.
- This truss 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.



March 8, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss B10	Truss Type Hip Girder	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088538
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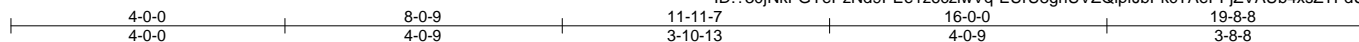
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

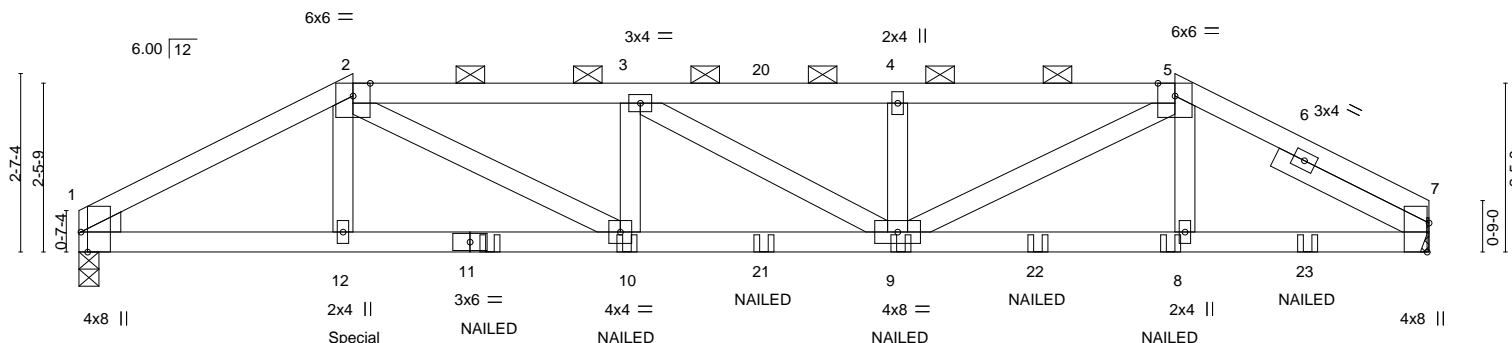
8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:20 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-EUrU8ghUVZQipfJbPkcTAePFjZVAUb4xsZTFdUzd1eX

Job Reference (optional)



Scale = 1:33.6



4-0-0	8-0-9	11-11-7	16-0-0	19-8-8
4-0-0	4-0-9	3-10-13	4-0-9	3-8-8

Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-5-1,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 0.46	Vert(LL)	-0.11 9-10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.21 9-10	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.27	Horz(CT)	0.05 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						
								Weight: 73 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
SLIDER Right 2x4 SPF No.2 -t 2-6-0

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 1=0-3-8
Max Horz 1=36(LC 29)
Max Uplift 7=180(LC 9), 1=206(LC 8)
Max Grav 7=1114(LC 1), 1=1158(LC 1)

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

TOP CHORD 1-2=-2009/355, 2-3=-2510/435, 3-4=-2421/400, 4-5=-2423/402, 5-7=-1693/264
BOT CHORD 1-12=-308/1745, 10-12=-306/1729, 9-10=-414/2508, 8-9=-204/1481, 7-8=-202/1487
WEBS 2-12=-43/257, 2-10=-157/947, 3-10=-301/146, 4-9=-338/129, 5-9=-208/1120

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=180, 1=206.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 241 lb down and 105 lb up at 4-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-5=-70, 5-7=-70, 13-17=-20



March 8, 2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088538
2704670	B10	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:38:20 2021 Page 2
ID:730jNkFGYePzNd9PEe1z6czlwVq-EUrU8ghUVZQipfJbPkcTAePFjZVAUb4xsZTFdUzd1eX

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 11=-25(F) 12=-241(F) 10=-25(F) 9=-25(F) 8=-25(F) 21=-25(F) 22=-25(F) 23=-104(F)

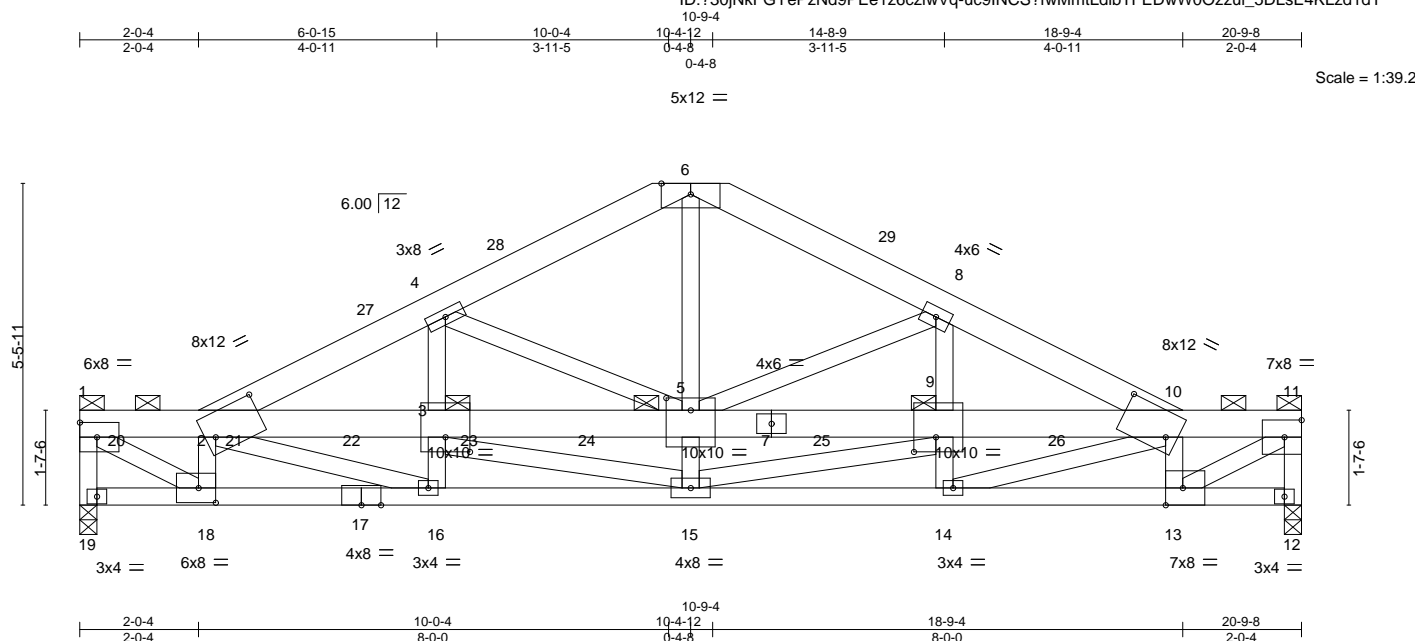


Plate Offsets (X,Y)-- [2:0-10-0-0-4-12], [3:0-5-0-0-3-0], [5:0-5-0-0-2-8], [9:0-4-8-0-3-0], [10:0-9-12,0-5-0], [13:0-3-8,Edge], [18:0-3-8,0-3-0]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.02	16	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.18	14-15	>999	180			
BCLL	0.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.08	12	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 282 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-7-6 max.): 1-11.
BOT CHORD	2x4 SPF No.2 *Except* 12-17: 2x4 SPF 1650F 1.5E	BOT CHORD	
WEBS	2x4 SPF No.2 *Except* 1-18,11-13: 2x4 SPF 1650F 1.5E	JOINTS	Rigid ceiling directly applied. 1 Brace at Jt(s): 1, 11, 9, 3, 5

REACTIONS. (size) 19=0-3-8, 12=0-3-8
Max Horz 19=-89(LC 8)
Max Grav 19=4619(LC 1), 12=4651(LC 1)

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

TOP CHORD 1-19=4443/0, 1-2=6046/0, 3-5=397/0, 10-11=6739/0, 2-4=6837/0, 4-6=4561/0,
6-8=4562/0, 8-10=7148/0, 11-12=4451/0

BOT CHORD 18-19=0/415, 16-18=0/6046, 15-16=0/6024, 14-15=0/6409, 13-14=0/6739, 12-13=0/383

WEBS 1-18=0/6655, 2-18=3620/0, 13-18=4072/0, 11-13=0/7457, 8-9=0/2100, 9-14=0/316,
3-4=0/1847, 5-6=0/3429, 5-8=2502/0, 4-5=2192/0, 3-15=0/453, 10-14=353/0

NOTES-

- 1) 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 0-7-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 18-2 2x4 - 1 row at 0-7-0 oc, member 13-10 2x4 - 1 row at 0-7-0 oc.
- 2) 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.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) 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) interior zone and C-C Exterior(2E) 2-2-0 to 5-2-0, Interior(1) 5-2-0 to 10-4-12, Exterior(2R) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 20-7-12, Exterior(2R) 10-4-12 to 13-4-12, Interior(1) 13-4-12 to 18-7-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Bearing at joint(s) 19, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 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) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheathing be applied directly to the bottom chord.



March 8, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088539
2704670	C1	Roof Special	1	2	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:23 2021 Page 2
ID:?30jNkFGYePzNd9PEe1z6czlwVq-uc9lNCS?fwMmtLdibTFEDwW0Ozzul_5DLsE4KLzd1dY


NOTES-

- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 10-11=-70, 2-6=-70, 6-10=-70, 12-19=-20
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-58, 10-11=-58, 2-6=-58, 6-10=-58, 12-19=-20
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-20, 10-11=-20, 2-6=-20, 6-10=-20, 12-19=-40
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=34, 10-11=26, 2-27=36, 6-27=32, 6-29=40, 10-29=32, 12-19=-8
Horz: 1-19=20, 2-27=-48, 6-27=-44, 6-29=52, 10-29=44, 11-12=35
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=26, 10-11=34, 2-28=32, 6-28=40, 6-10=32, 12-19=-8
Horz: 1-19=-35, 2-28=-44, 6-28=-52, 6-10=44, 11-12=-20
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-36, 10-11=-36, 2-6=-42, 6-10=-42, 12-19=-20
Horz: 1-19=-23, 2-6=22, 6-10=-22, 11-12=32
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-36, 10-11=-36, 2-6=-42, 6-10=-42, 12-19=-20
Horz: 1-19=32, 2-6=22, 6-10=-22, 11-12=23
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=16, 10-11=6, 2-6=6, 6-10=19, 12-19=-8
Horz: 1-19=12, 2-6=-18, 6-10=31, 11-12=18
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 10-11=16, 2-6=19, 6-10=6, 12-19=-8
Horz: 1-19=-18, 2-6=-31, 6-10=18, 11-12=-12
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-3, 10-11=-14, 2-6=-26, 6-10=-13, 12-19=-20
Horz: 1-19=24, 2-6=6, 6-10=7, 11-12=6
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-14, 10-11=-3, 2-6=-13, 6-10=-26, 12-19=-20
Horz: 1-19=-6, 2-6=-7, 6-10=-6, 11-12=-24
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=16, 10-11=6, 2-6=35, 6-10=17, 12-19=-8
Horz: 1-19=7, 2-6=-47, 6-10=29, 11-12=15
Concentrated Loads (lb)
Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088539
2704670	C1	Roof Special	1	2	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:23 2021 Page 3
ID:?30jNkFGYePzNd9PEe1z6czlwVq-uc9INCStfwMmtLdibTFEDwW0Ozzul_5DLsE4KLzd1dY

- LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=6, 10-11=16, 2-6=17, 6-10=35, 12-19=-8
 Horz: 1-19=-15, 2-6=-29, 6-10=47, 11-12=-7

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=16, 10-11=6, 2-6=22, 6-10=12, 12-19=-8
 Horz: 1-19=7, 2-6=-34, 6-10=24, 11-12=15

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=6, 10-11=16, 2-6=12, 6-10=22, 12-19=-8
 Horz: 1-19=-15, 2-6=-24, 6-10=34, 11-12=-7

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-3, 10-11=-14, 2-6=3, 6-10=-14, 12-19=-20
 Horz: 1-19=19, 2-6=-23, 6-10=6, 11-12=4

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-14, 10-11=-3, 2-6=-14, 6-10=3, 12-19=-20
 Horz: 1-19=-4, 2-6=-6, 6-10=23, 11-12=-19

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90

Uniform Loads (plf)

Vert: 1-2=-20, 10-11=-20, 2-6=-20, 6-10=-20, 12-19=-20

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

19) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-45, 10-11=-53, 2-6=-62, 6-10=-52, 12-19=-20
 Horz: 1-19=18, 2-6=4, 6-10=6, 11-12=5

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

20) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-53, 10-11=-45, 2-6=-52, 6-10=-62, 12-19=-20
 Horz: 1-19=-5, 2-6=-6, 6-10=-4, 11-12=-18

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

21) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-45, 10-11=-53, 2-6=-40, 6-10=-53, 12-19=-20
 Horz: 1-19=14, 2-6=-17, 6-10=4, 11-12=3

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

22) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-53, 10-11=-45, 2-6=-53, 6-10=-40, 12-19=-20
 Horz: 1-19=-3, 2-6=-4, 6-10=17, 11-12=-14

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

23) Dead + 0.6 C-C Wind Min. Down: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-28, 10-11=-28, 2-6=-28, 6-10=-28, 12-19=-8
 Horz: 1-19=-16, 2-6=16, 6-10=-16, 11-12=-16

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

24) Dead + 0.6 C-C Wind Min. Upward: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=4, 10-11=4, 2-6=4, 6-10=4, 12-19=-8
 Horz: 1-19=16, 2-6=-16, 6-10=16, 11-12=16

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

25) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-70, 10-11=-20, 2-6=-70, 6-10=-20, 12-19=-20

 Concentrated Loads (lb)

Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

Continued on page 4

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088539
2704670	C1	Roof Special	1	2	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:23 2021 Page 4
ID:?30jNkFGYePzNd9PEe1z6czlwVq-uc9lNCS?fwMmtLdibTFEDwW0OzzuL_5DLsE4KLzd1dY

LOAD CASE(S) Standard

- 26) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-2=-20, 10-11=-20, 2-6=-20, 6-10=-20, 12-19=-20
- Concentrated Loads (lb)
- Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- 27) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-2=-58, 10-11=-20, 2-6=-58, 6-10=-20, 12-19=-20
- Concentrated Loads (lb)
- Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)
- 28) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-2=-20, 10-11=-20, 2-6=-20, 6-10=-20, 12-19=-20
- Concentrated Loads (lb)
- Vert: 10=-1050(F) 9=-825(F) 5=-650(F) 20=-650(F) 21=-650(F) 22=-650(F) 23=-700(F) 24=-650(F) 25=-750(F) 26=-850(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	145088540
2704670	C2	Hip	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:24 2021 Page 1

ID:730JNkFGYePzNd9PEe1z6cZwVq-MojhaYSdQDUdVUCu9BmTm83EZMR6UaoMaWzesnd1dX

0-10-8	4-0-7	8-0-8	12-9-0	16-9-1	20-9-8	21-8-0
0-10-8	4-0-7	4-0-1	4-8-8	4-0-1	4-0-7	0-10-8

Scale = 1:37.3

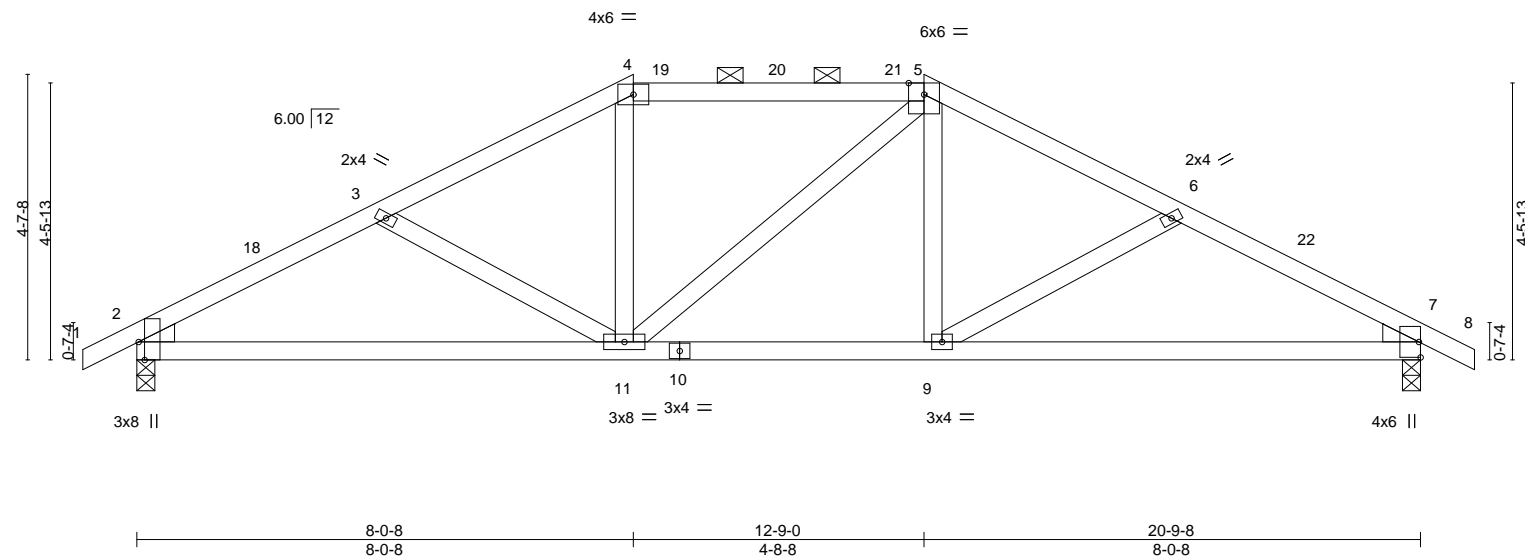


Plate Offsets (X,Y)-- [2:0-3-8,Edge]		8-0-8		12-9-0		20-9-8	
		8-0-8		4-8-8		8-0-8	
LOADING (psf)	SPACING-	2-0-0		CSI.	DEFL.	in (loc)	
TCLL 25.0	Plate Grip DOL	1.15		TC 0.27	Vert(LL)	-0.07	9-17
TCDL 10.0	Lumber DOL	1.15		BC 0.48	Vert(CT)	-0.14	9-17
BCLL 0.0	Rep Stress Incr	YES		WB 0.09	Horz(CT)	0.04	7
BCDL 10.0	Code IRC2018/TPI2014			Matrix-AS		n/a	n/a
					PLATES	GRIP	
					MT20	197/144	
					Weight: 79 lb	FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
 Max Horz 2=-77(LC 13)
 Max Uplift 2=-179(LC 12), 7=-179(LC 13)
 Max Grav 2=997(LC 1), 7=997(LC 1)

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

TOP CHORD 2-3=-1525/334, 3-4=-1301/291, 4-5=-1113/298, 5-6=-1301/292, 6-7=-1525/334
 BOT CHORD 2-11=-259/1306, 9-11=-140/1113, 7-9=-237/1306
 WEBS 4-11=-15/281, 5-9=-17/281

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 8-0-8, Exterior(2R) 8-0-8 to 12-3-7, Interior(1) 12-3-7 to 12-9-0, Exterior(2R) 12-9-0 to 16-11-0, Interior(1) 16-11-0 to 21-8-0 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
- 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=179, 7=179.
- This truss 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.



March 8, 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 #92/MO	145088541
2704670	C3	Hip	1	1	Job Reference (optional)	

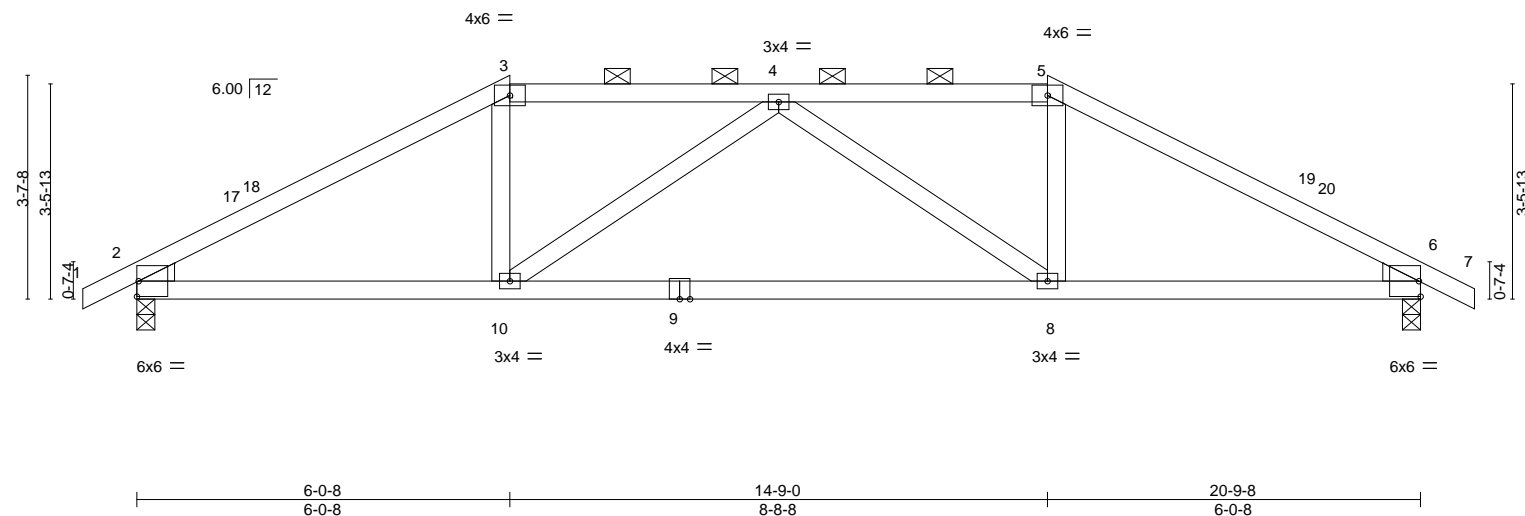
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:27 2021 Page 1

ID: ?30jNkFGYePzNd9PEe1z6czlwVq-nNPpCaVWj8sCMyxTqJJANmhkbaRkhvXpGUCIT6zd1dU

0-10-8	6-0-8	10-4-12	14-9-0	20-9-8	21-8-0
0-10-8	6-0-8	4-4-4	4-4-4	6-0-8	0-10-8

Scale = 1:37.3



	6-0-8	14-9-0	20-9-8	
	6-0-8	8-8-8	6-0-8	
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES
TCLL 25.0	2-0-0	TC 0.35	in (loc) l/defl L/d	GRIP
TCDL 10.0	Plate Grip DOL 1.15	BC 0.62	Vert(LL) -0.17 8-10 >999 240	MT20 197/144
BCLL 0.0	Lumber DOL 1.15	WB 0.22	Vert(CT) -0.36 8-10 >695 180	
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.04 6 n/a n/a	
	Code IRC2018/TPI2014			Weight: 72 lb FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (5-0-9 max.): 3-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=59(LC 12)
Max Uplift 2=182(LC 12), 6=182(LC 13)
Max Grav 2=997(LC 1), 6=997(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1526/281, 3-4=-1276/294, 4-5=-1276/294, 5-6=-1526/281
BOT CHORD 2-10=-182/1288, 8-10=-235/1516, 6-8=-168/1288
WEBS 3-10=-15/373, 4-10=-404/155, 4-8=-404/155, 5-8=-15/373

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 6-0-8, Exterior(2R) 6-0-8 to 10-4-12, Interior(1) 10-4-12 to 14-9-0, Exterior(2R) 14-9-0 to 18-11-15, Interior(1) 18-11-15 to 21-8-0 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
- 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=182, 6=182.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



March 8, 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 2704670	Truss C4	Truss Type Hip Girder	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO 145088542
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

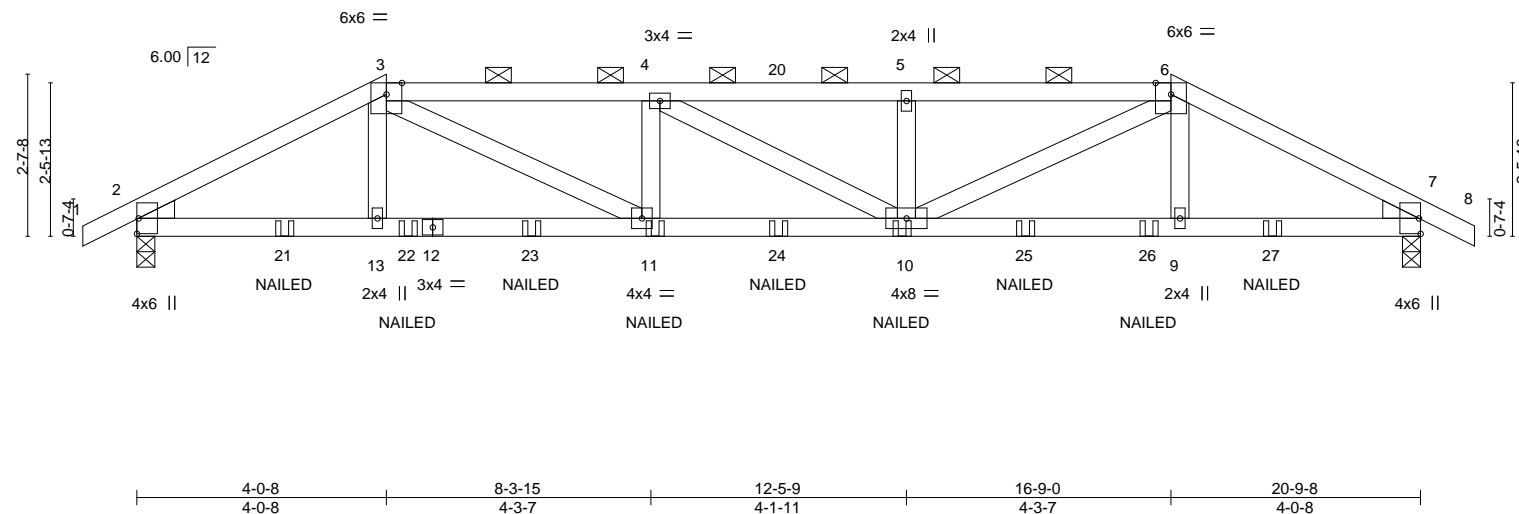
8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:29 2021 Page 1

ID: ?30jNkFGYePzNd9PEe1z6czlwVq-jmWadGWmFm6wbG4sykMeTBm2qN3J9oE5kohPY_zd1dS

Job Reference (optional)

0-10-8 0-10-8	4-0-8 4-0-8	8-3-15 4-3-7	12-5-9 4-1-11	16-9-0 4-3-7	20-9-8 4-0-8	21-8-0 0-10-8
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Scale = 1:37.3



LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	-0.13 10-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.24 10-11	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.27	Horz(CT)	0.06 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 77 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-12 oc purlins, except
2-0-0 oc purlins (3-3-8 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 9-5-12 oc bracing.

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=41(LC 29)
Max Uplift 2=-219(LC 8), 7=-219(LC 9)
Max Grav 2=1224(LC 1), 7=1224(LC 1)

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

TOP CHORD 2-3=-1924/306, 3-4=-2592/423, 4-5=-2589/421, 5-6=-2591/422, 6-7=-1924/306
BOT CHORD 2-13=-253/1673, 11-13=-254/1665, 10-11=-388/2590, 9-10=-232/1665, 7-9=-232/1673
WEBS 3-11=-188/1098, 4-11=-363/140, 5-10=-347/135, 6-10=-187/1097

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=219, 7=219.
- 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 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-6=-70, 6-8=-70, 14-17=-20
Concentrated Loads (lb)
Vert: 11=-25(B) 10=-25(B) 21=-139(B) 22=-25(B) 23=-25(B) 24=-25(B) 25=-25(B) 26=-25(B) 27=-139(B)



March 8, 2021

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

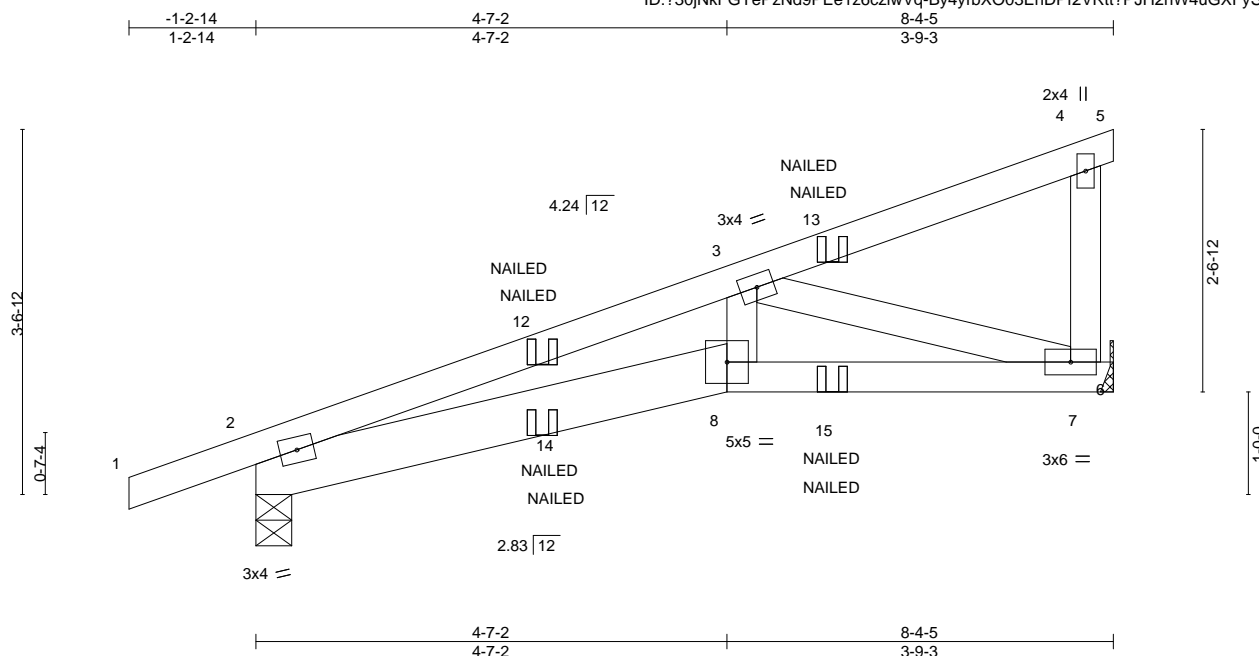
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 2704670	Truss CJ1	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088543
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:30 2021 Page 1
ID:730jNkFGYePzNd9PEe1z6czlwVq-By4yrbXO03EnDPf2VRtt?PJH2nW4uGXfYSQy4Rzd1dR



Scale = 1:22.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.02	8	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.04	8	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.20	Horz(CT)	0.02	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 31 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-4-3, 7=Mechanical
Max Horz 2=129(LC 5)
Max Uplift 2=137(LC 4), 7=128(LC 8)
Max Grav 2=474(LC 1), 7=409(LC 1)

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

TOP CHORD 2-3=-993/283
BOT CHORD 2-8=-307/915, 7-8=-293/849
WEBS 3-8=-30/283, 3-7=-885/327

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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=137, 7=128.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-20, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 13=-29(F=-15, B=-15) 14=2(F=1, B=1) 15=-30(F=-15, B=-15)



March 8, 2021

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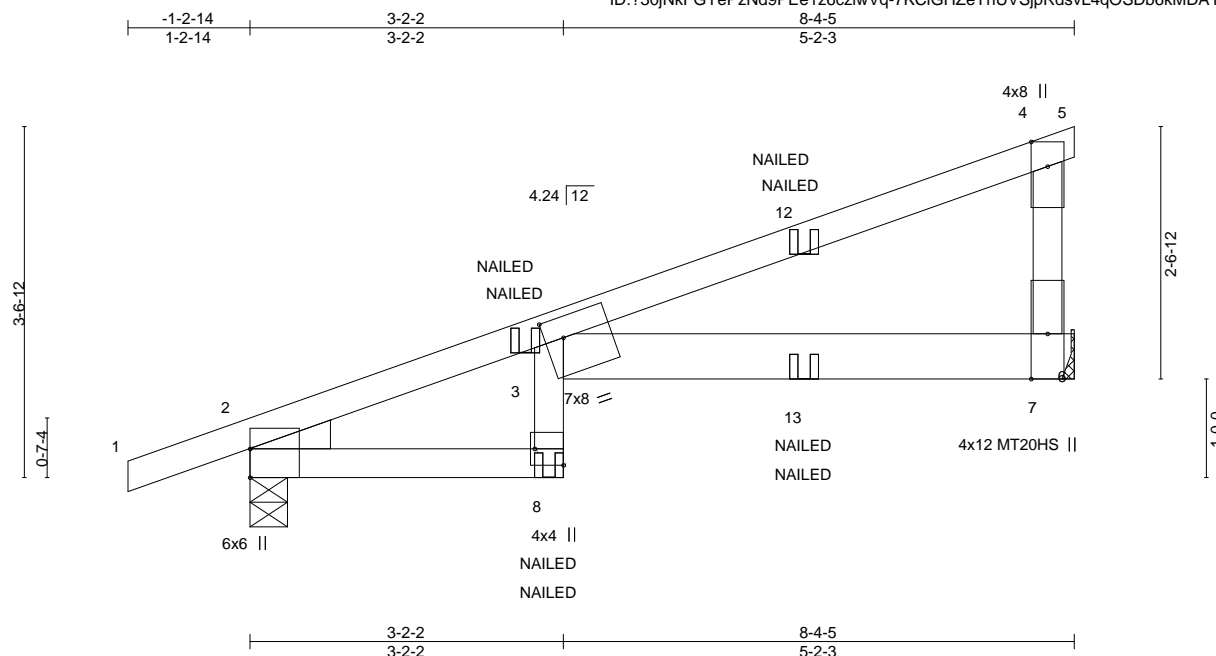


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss CJ2	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088544
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:32 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-7KCIGHZeYhUVSjpRdsVL4qOSDb6kMDAYQmv39Jzd1dP



Scale = 1:23.4

Plate Offsets (X,Y)--		[3:0-2-4,0-2-8], [8: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 0.93		Vert(LL) 0.20 8 >484 240		MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.76		Vert(CT) -0.34 8 >290 180		MT20HS	148/108
BCLL 0.0		Rep Stress Incr NO		WB 0.00		Horz(CT) 0.18 7 n/a n/a			
BCDL 10.0		Code IRC2018/TPI2014		Matrix-MR					
								Weight: 32 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
 BOT CHORD 2x4 SPF No.2 *Except*
 3-6: 2x6 SPF No.2
 WEBS 2x4 SPF No.2
 WEDGE
 Left: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9
 Max Horz 2=127(LC 5)
 Max Uplift 7=155(LC 8), 2=159(LC 4)
 Max Grav 7=442(LC 1), 2=495(LC 1)

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

TOP CHORD 3-10=271/46, 3-4=272/75

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) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=155, 2=159.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-70, 3-4=-70, 4-5=-20, 8-9=-20, 3-6=-20
 Concentrated Loads (lb)
 Vert: 8=-12(F=-6, B=-6) 12=-17(F=-9, B=-9) 13=-82(F=-41, B=-41)



March 8, 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 **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 2704670	Truss CJ4	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088546
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:37 2021 Page 1 ID:730jNkFGYePzNd9PEe1z6czlwVq-UI?bJ?dnMD6nZUIOQPvWnt5VhczB1TfHZ1dqqXzd1dK					
Job Reference (optional)					

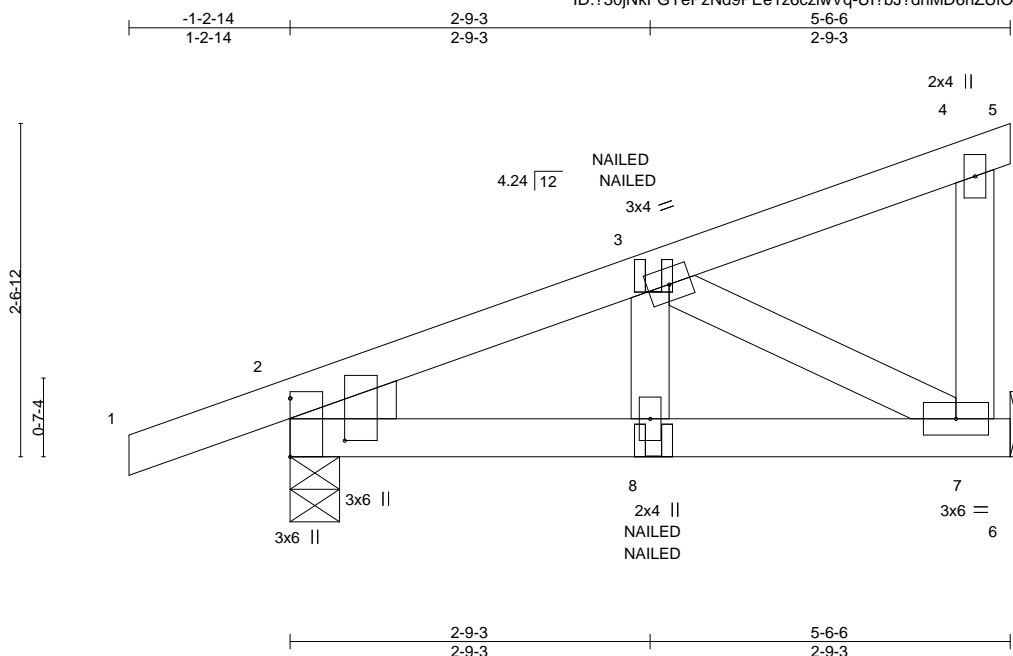


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0]				
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.00 8 >999 240
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01 8 >999 180
BCLL 0.0	Rep Stress Incr	NO	WB 0.05	Horz(CT)	0.00 7 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP		
					PLATES MT20 GRIP 197/144
					Weight: 22 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9
Max Horz 2=104(LC 7)
Max Uplift 7=77(LC 8), 2=113(LC 4)
Max Grav 7=244(LC 1), 2=339(LC 1)

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

TOP CHORD 2-3=-294/74
BOT CHORD 2-8=-82/258, 7-8=-82/258
WEBS 3-7=-290/113

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=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).

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=-12(F=-6, B=-6)



March 8, 2021

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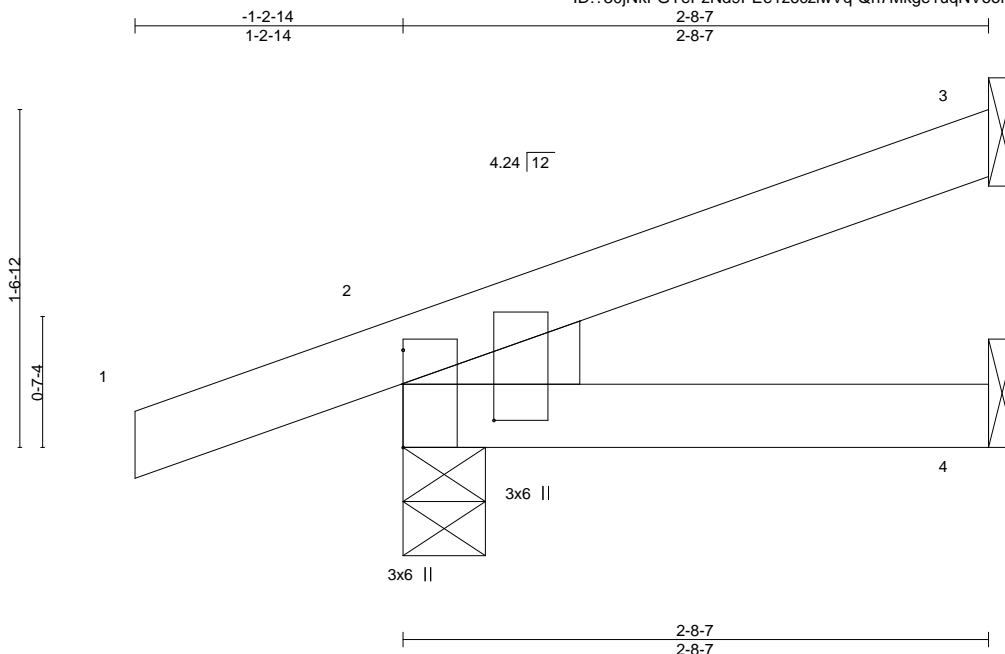


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss CJ5	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088547
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:39 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-Qh7Mkge1uqNVoomXqX_slBrQPgOVNva1L6xuPzd1dl



Scale = 1:10.6

Plate Offsets (X,Y)--		[2:0-3-14,0-5-0]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00 7 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	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				Weight: 9 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 2=0-4-9
Max Horz 2=62(LC 8)
Max Uplift 3=-31(LC 12), 4=-1(LC 12), 2=-80(LC 8)
Max Grav 3=67(LC 1), 4=44(LC 3), 2=226(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 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 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, 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.



March 8, 2021

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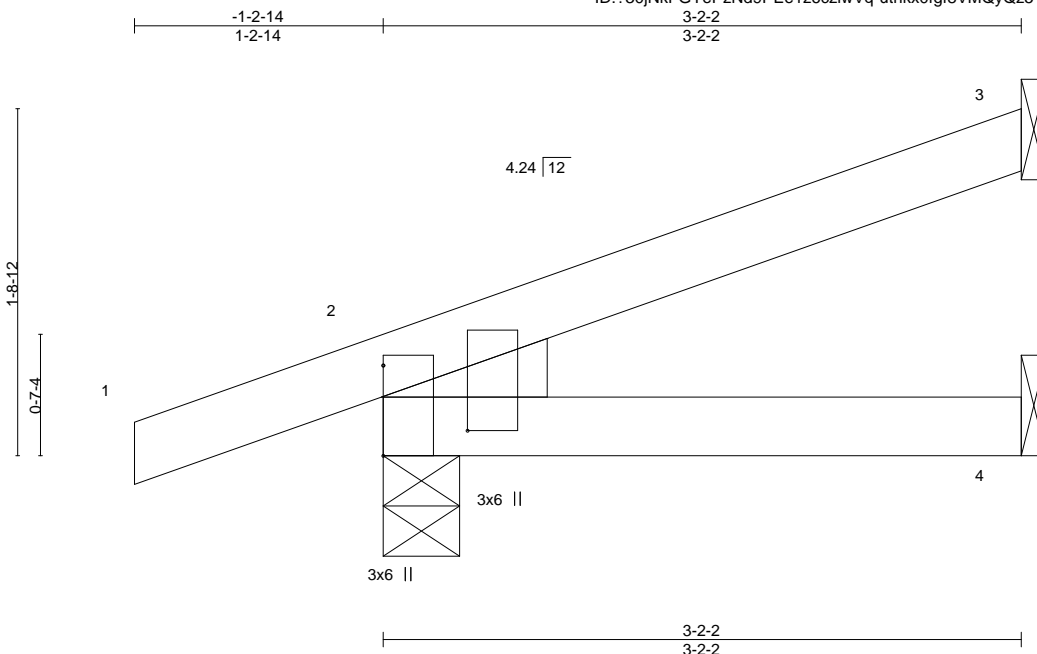
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss CJ6	Truss Type Jack-Open	Qty 2	Ply 1	SUMMIT/STONE CREEK #92/MO I45088548
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:40 2021 Page 1
ID:730jNkFGYePzNd9PEe1z6czlwVq-uthkx0fgf8VMQyQz5Y2DPWj0Ap?AEq9jF?rURszd1dH



Scale = 1:11.5

Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	0.01 4-7	>999	240
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 2	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
WEDGE
Left: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 2=0-4-9
Max Horz 2=69(LC 8)
Max Uplift 3=-38(LC 12), 4=-1(LC 12), 2=-82(LC 8)
Max Grav 3=83(LC 1), 4=54(LC 3), 2=244(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 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 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, 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.



March 8, 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 2704670	Truss D1	Truss Type Hip	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088550
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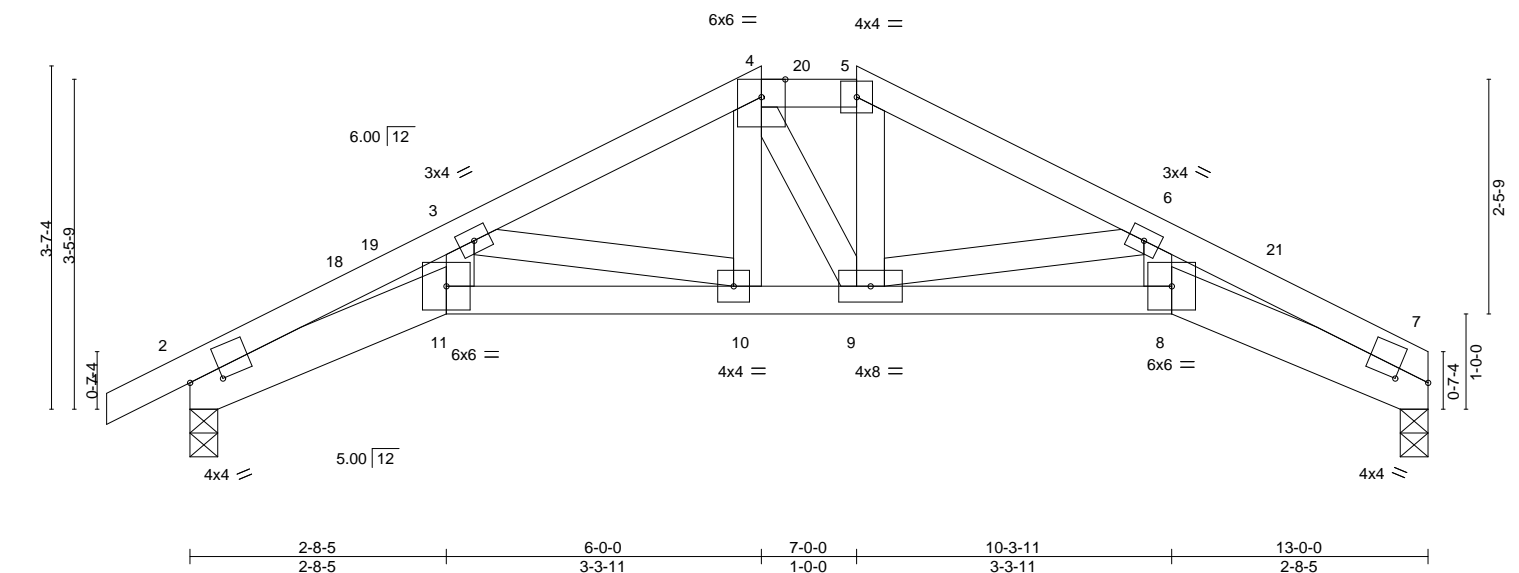
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:43 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-JSMsZ2hYy3txHP9Ymgcx18LW31vyR9i9yz481Bzd1dE

-0-10-8	2-8-5	6-0-0	7-0-0	10-3-11	13-0-0
0-10-8	2-8-5	3-3-11	1-0-0	3-3-11	2-8-5

Scale: 1/2"=1'



Job 2704670	Truss D2	Truss Type Hip Girder	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO Job Reference (optional)	I45088551
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:44 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-newFnOiAjN?ouZkkKN7AZMuafQ9xAcTJAdphadz1dD



Scale = 1:23.4

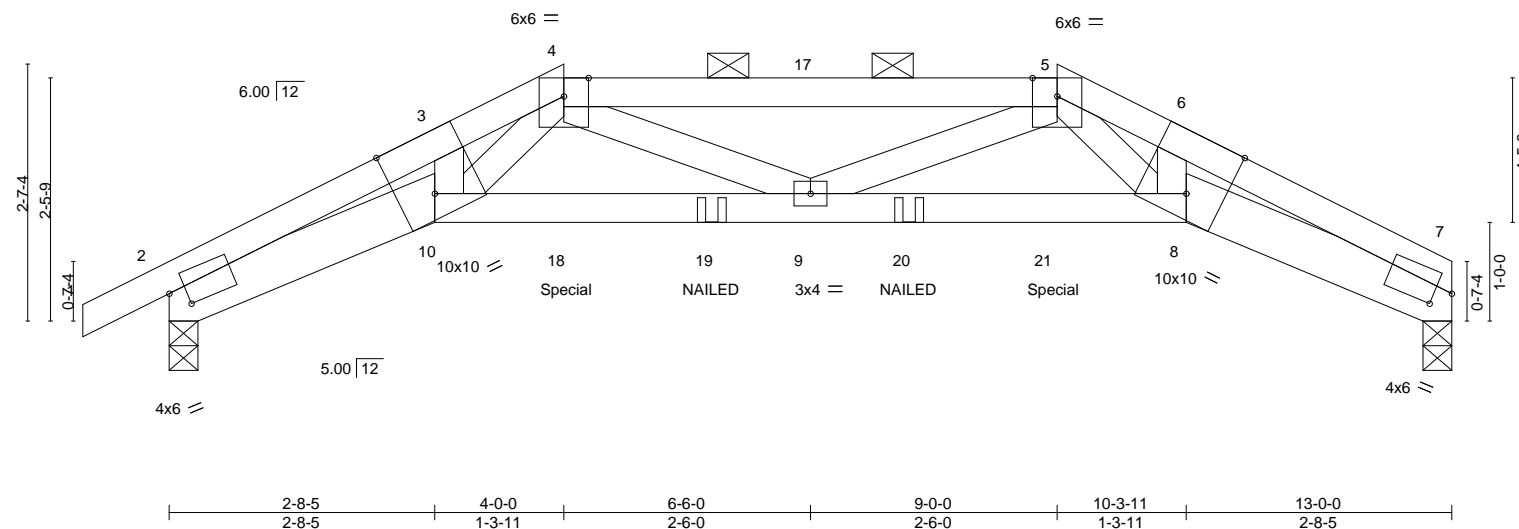


Plate Offsets (X,Y)-- [2:0-2-1,0-2-3], [7:0-2-1,0-2-3], [8:0-4-7,Edge], [10:0-4-7,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.11	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.22	8-9	>725	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.13	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 47 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
8-10: 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-7 oc purlins, except
2-0-0 oc purlins (3-3-14 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 9-3-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 2=0-3-8
Max Horz 2=49(LC 8)
Max Uplift 7=166(LC 9), 2=188(LC 8)
Max Grav 7=806(LC 1), 2=873(LC 1)

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

TOP CHORD 2-3=-2969/637, 3-4=-2610/596, 4-5=-2292/418, 5-6=-2628/556, 6-7=-2988/591
BOT CHORD 2-10=-577/2695, 9-10=-394/1956, 8-9=-337/1962, 7-8=-500/2716
WEBS 3-10=-115/536, 6-8=-122/535, 5-8=-165/704, 4-10=-184/689, 4-9=-71/435, 5-9=-72/431

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.
- Bearing at joint(s) 7, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=166, 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.
- 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) 211 lb down and 93 lb up at 4-0-0, and 211 lb down and 93 lb up at 8-11-4 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: 1-4=-70, 4-5=-70, 5-7=-70, 10-14=-20, 8-10=-20, 8-11=-20



March 8, 2021

Continued on page 2

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088551
2704670	D2	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:44 2021 Page 2
ID:?30jNkFGYePzNd9PEe1z6czlwVq-newFnOiAjN?ouZkkKN7AZMuafQ9xAcTJAdphadz1dD

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 18=-211(F) 19=-13(F) 20=-13(F) 21=-211(F)

Job 2704670	Truss E1	Truss Type Common	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088552
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:45 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-FrUd_kjoUg7eWjJxu5eP6ZRs6qhBv5rSPHZF63zd1dC

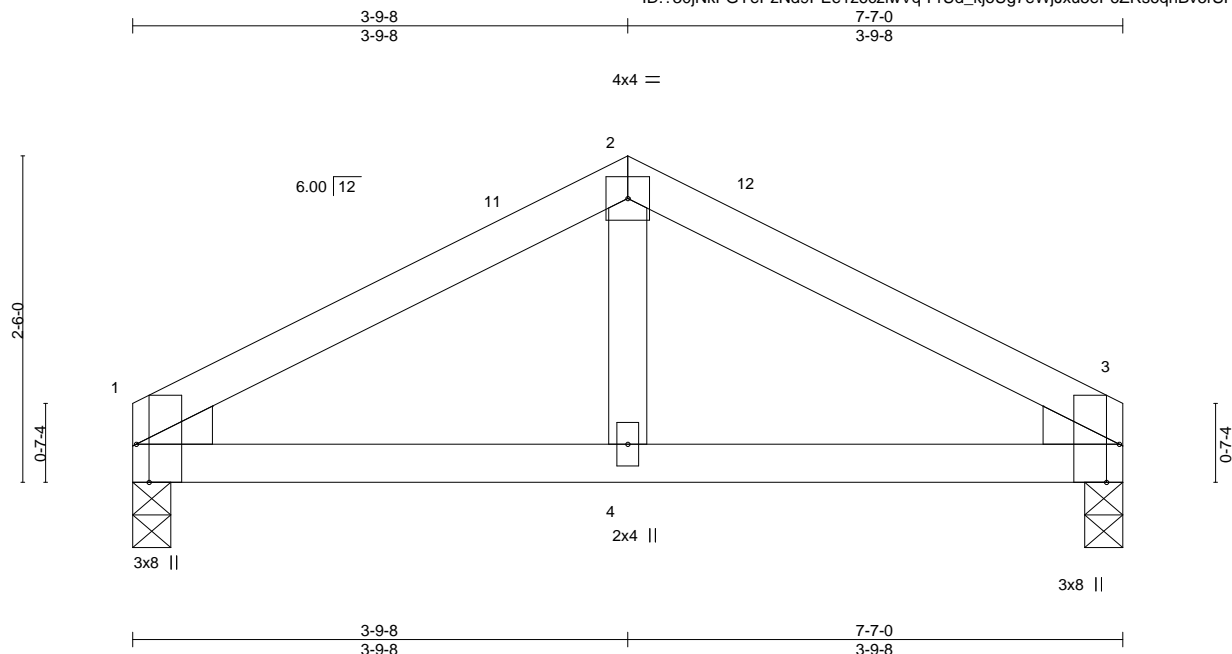


Plate Offsets (X,Y)--		[1:0-3-8,Edge], [3:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.15
TCDL 10.0	Lumber DOL	1.15	BC 0.15
BCLL 0.0	Rep Stress Incr	YES	WB 0.04
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.01 4-7 >999 240
			Vert(CT) -0.01 4-7 >999 180
			Horz(CT) 0.00 1 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 22 lb FT = 20%

LUMBER-

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

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 3=0-3-8
Max Horz 1=-33(LC 17)
Max Uplift 1=-55(LC 12), 3=-55(LC 13)
Max Grav 1=341(LC 1), 3=341(LC 1)

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

TOP CHORD 1-2=-411/236, 2-3=-411/236
BOT CHORD 1-4=-130/318, 3-4=-130/318

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 3-9-8, Exterior(2R) 3-9-8 to 6-11-11, Interior(1) 6-11-11 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



March 8, 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

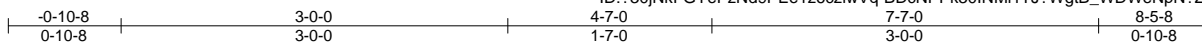
Job	Truss	Truss Type	Qty	Ply	SUMMIT/STONE CREEK #92/MO	I45088553
2704670	E2	Hip Girder	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:47 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-BDcNPPk30INMI1TJ?WgtB_WDWeNpN?Zlsb2MByzd1dA



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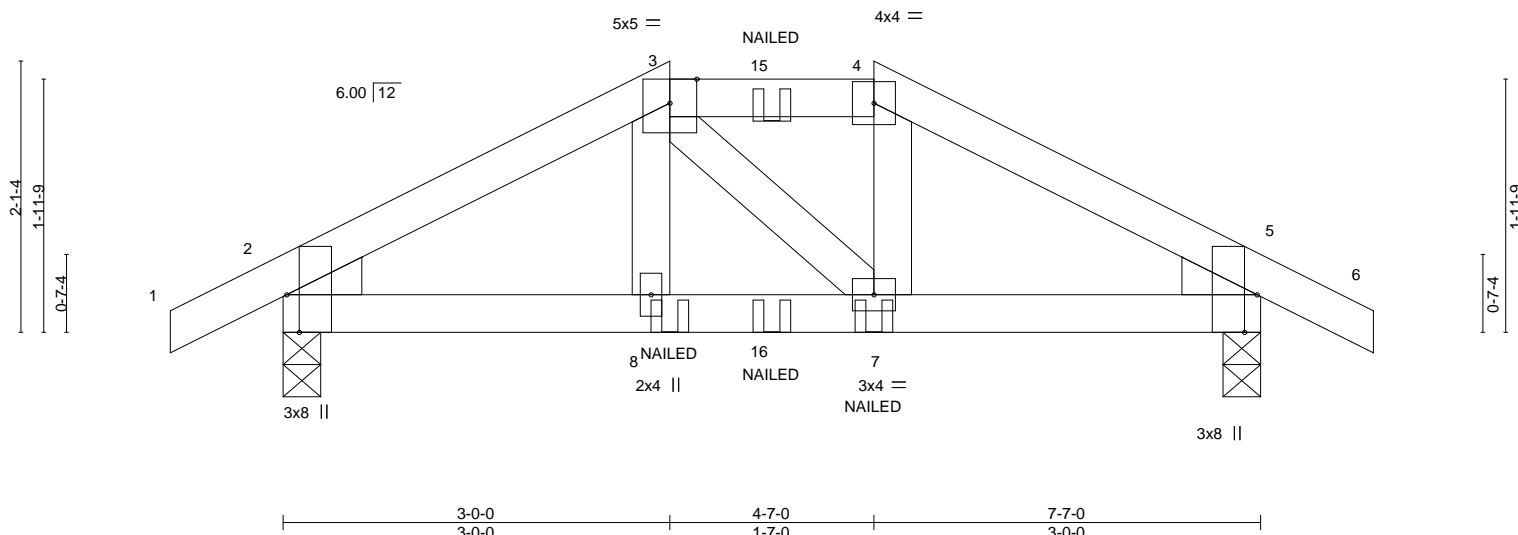


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [5:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.09		Vert(LL) -0.01 8 >999 240		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.14		Vert(CT) -0.01 7-8 >999 180					
BCLL	0.0	Rep Stress Incr NO		WB 0.02		Horz(CT) 0.00 5 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP				Weight: 28 lb		FT = 20%	

LUMBER-

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

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=33(LC 8)
Max Uplift 2=93(LC 8), 5=93(LC 9)
Max Grav 2=435(LC 1), 5=435(LC 1)

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

TOP CHORD 2-3=-487/99, 3-4=-396/108, 4-5=-487/99
BOT CHORD 2-8=-65/401, 7-8=-65/396, 5-7=-46/402

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) 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.
- 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.
- 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: 8=-16(F) 7=-16(F) 15=-13(F) 16=-20(F)



March 8, 2021

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

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



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Chesterfield, MO 63017

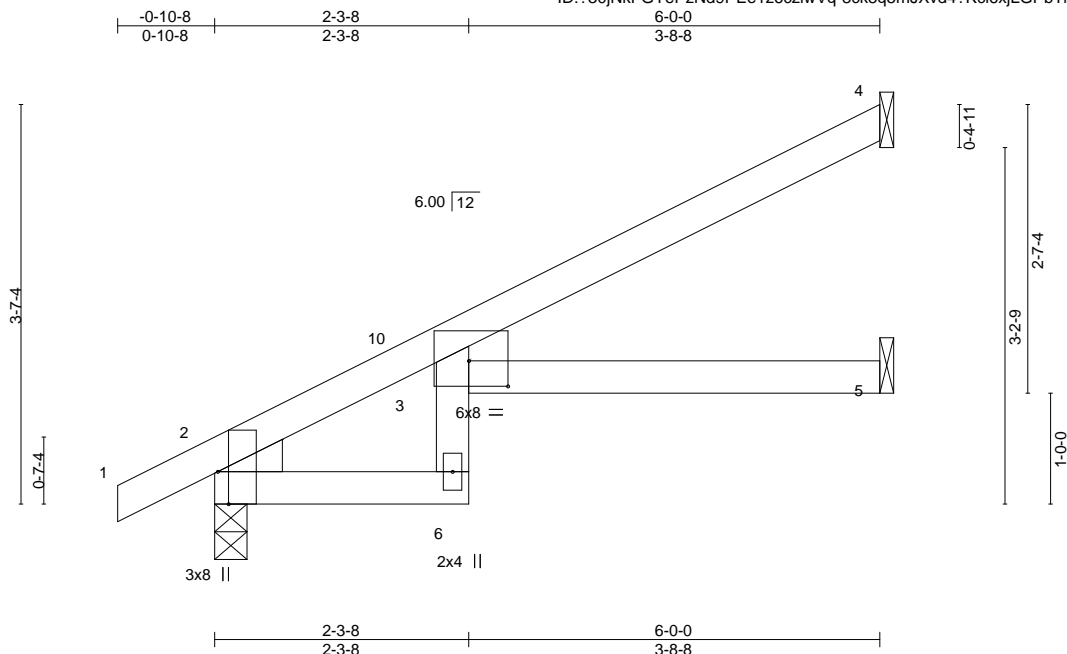
Job 2704670	Truss J1	Truss Type Jack-Open	Qty 3	Ply 1	SUMMIT/STONE CREEK #92/MO I45088554
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:49 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-8ck8q5mJXvd4?Kci6xjLGPbTnR?jrvO2KvXSFqzd1d8



Job 2704670	Truss J2	Truss Type Jack-Open	Qty 9	Ply 1	SUMMIT/STONE CREEK #92/MO I45088555
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:58 2021 Page 1

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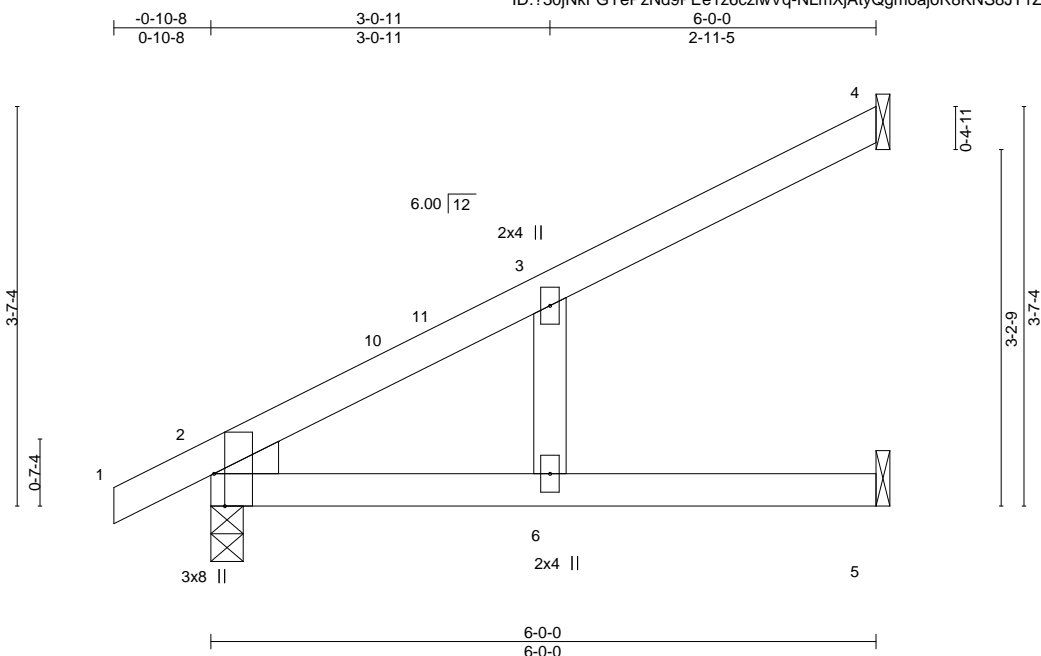


Plate Offsets (X,Y)-- [2:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	0.09	6	>770	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.13	6	>533	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 18 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 4=311(LC 1), 2=311(LC 1)
Max Uplift 2=126(LC 12), 5=15(LC 12)
Max Grav 2=504(LC 1), 5=93(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=406/185, 3-4=359/254

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 and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 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) 5 except (jt=lb) 2=126.
- 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.



March 8, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

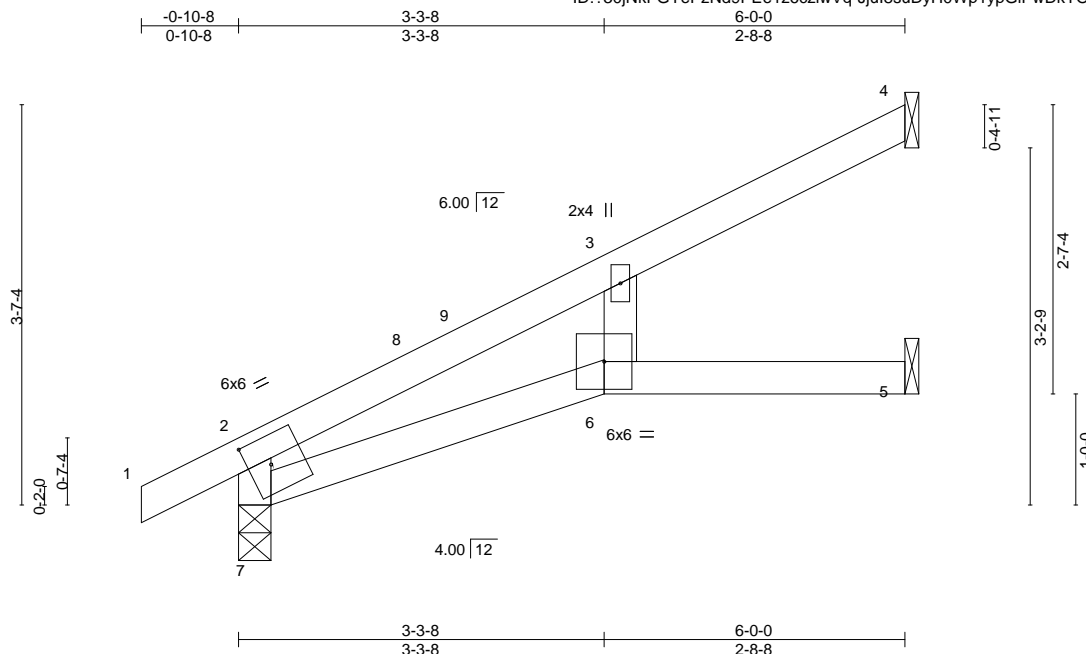
Job 2704670	Truss J3	Truss Type Jack-Open	Qty 3	Ply 1	SUMMIT/STONE CREEK #92/MO I45088556
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:00 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-Jju8suDyH0Wp1ypGIPwDkYOitm_wtngs6hY7hzd1cz



Scale = 1:20.7

Plate Offsets (X,Y)--		[2:0-2-7,0-3-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.32	Vert(LL)	0.08	6	>880	240	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.33	Vert(CT)	-0.11	6	>643	180	
BCLL	0.0	Rep Stress Incr YES		WB	0.02	Horz(CT)	0.04	5	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) 4=Mechanical, 5=Mechanical, 7=0-3-8
Max Horz 4=-297(LC 1), 7=297(LC 1)
Max Uplift 5=-16(LC 12), 7=-126(LC 12)
Max Grav 5=85(LC 1), 7=508(LC 1)

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

TOP CHORD 2-7=-410/237, 2-3=-408/162, 3-4=-336/245

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 5-11-4 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) 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) 5 except (jt=lb) 7=126.
- 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.



March 8, 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 2704670	Truss J4	Truss Type Jack-Open	Qty 7	Ply 1	SUMMIT/STONE CREEK #92/MO I45088557
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:01 2021 Page 1

ID:??30jNkFGYePzNd9PEe1z6czlwVq-nwSgLCvrb8NRAX0pSw9mx5bXH9bfKMP5mR5f8zd1cy

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

Scale: 3/4"=1'

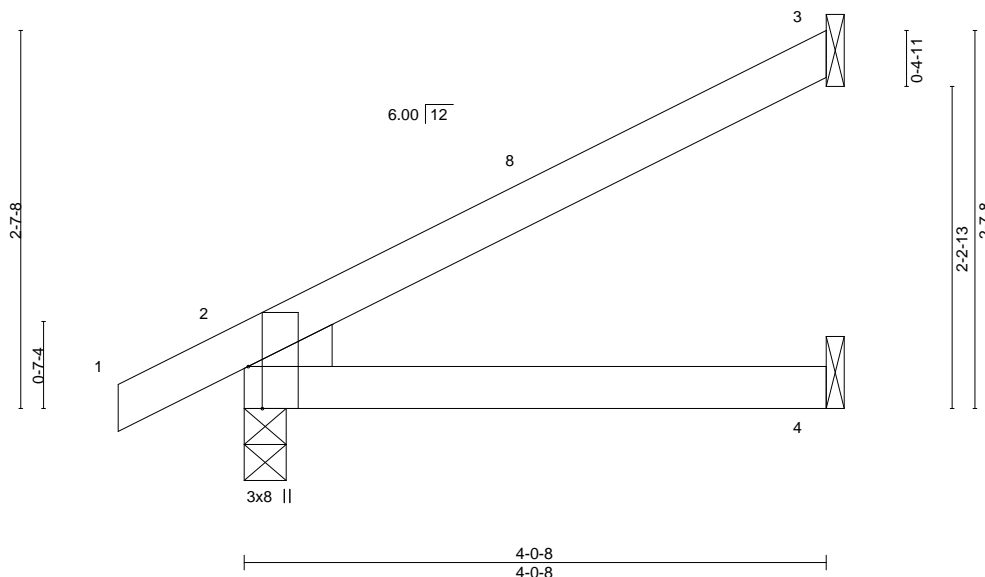


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19
TCDL 10.0	Lumber DOL	1.15	BC 0.11
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.01 4-7 >999 240
			Vert(CT) -0.02 4-7 >999 180
			Horz(CT) 0.00 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 12 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied.

BOT CHORD

Rigid ceiling directly applied.

REACTIONS.

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

Max Horz 3=222(LC 1), 2=222(LC 1)

Max Uplift 2=104(LC 12)

Max Grav 2=374(LC 1), 4=68(LC 3)

FORCES.

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

TOP CHORD 2-3=-304/211

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 3-11-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=104.
- 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.



March 8, 2021

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Chesterfield, MO 63017

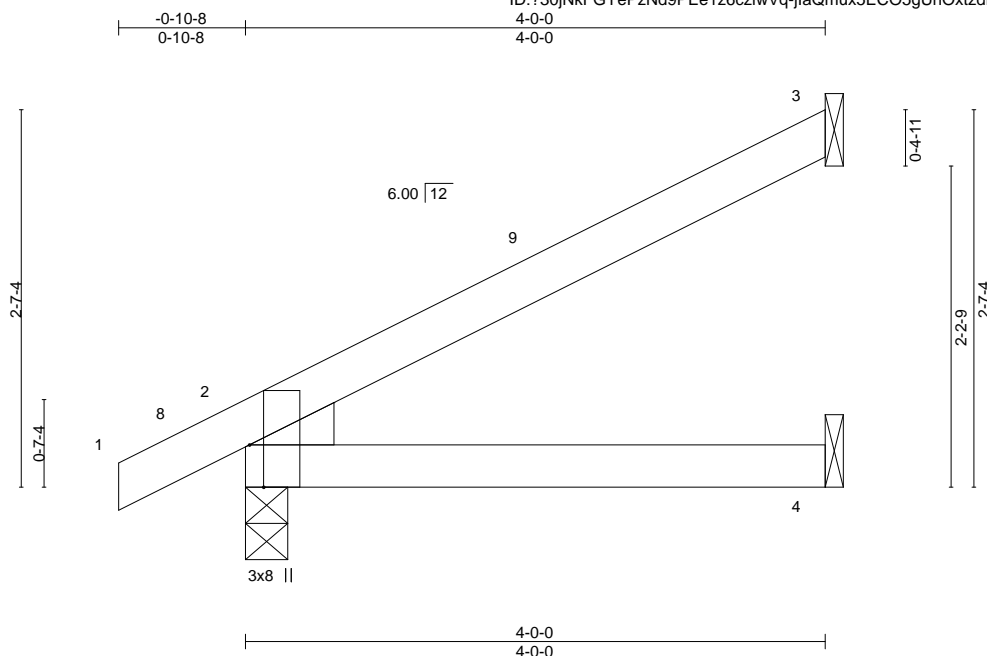


Plate Offsets (X,Y)-- [2:0-3-8,Edge]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01	4-7	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	4-7	>999	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 12 lb	FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 3=-217(LC 1), 2=217(LC 1)
Max Uplift 2=-103(LC 12)
Max Grav 2=370(LC 1), 4=68(LC 3)

FORCES.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-299/207

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 3-11-4 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) except (jt=lb) 2=103.
- 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.



March 8, 2021

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

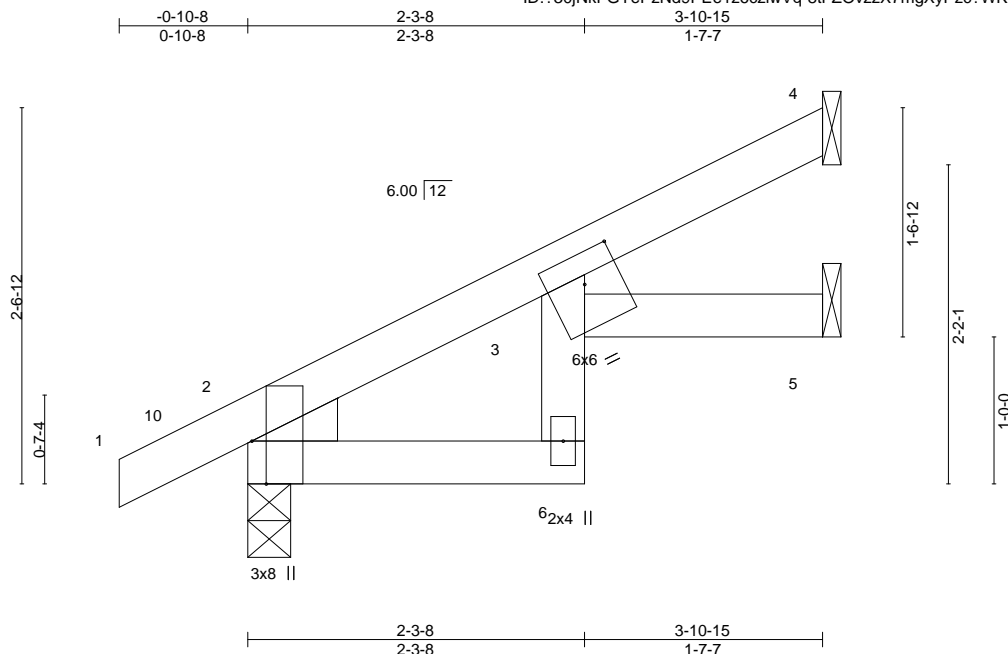
WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 16f, 17f, 18f, 19f, 20f, 21f, 22f, 23f, 24f, 25f, 26f, 27f, 28f, 29f, 30f, 31f, 32f, 33f, 34f, 35f, 36f, 37f, 38f, 39f, 40f, 41f, 42f, 43f, 44f, 45f, 46f, 47f, 48f, 49f, 50f, 51f, 52f, 53f, 54f, 55f, 56f, 57f, 58f, 59f, 60f, 61f, 62f, 63f, 64f, 65f, 66f, 67f, 68f, 69f, 70f, 71f, 72f, 73f, 74f, 75f, 76f, 77f, 78f, 79f, 80f, 81f, 82f, 83f, 84f, 85f, 86f, 87f, 88f, 89f, 90f, 91f, 92f, 93f, 94f, 95f, 96f, 97f, 98f, 99f, 100f, 101f, 102f, 103f, 104f, 105f, 106f, 107f, 108f, 109f, 110f, 111f, 112f, 113f, 114f, 115f, 116f, 117f, 118f, 119f, 120f, 121f, 122f, 123f, 124f, 125f, 126f, 127f, 128f, 129f, 130f, 131f, 132f, 133f, 134f, 135f, 136f, 137f, 138f, 139f, 140f, 141f, 142f, 143f, 144f, 145f, 146f, 147f, 148f, 149f, 150f, 151f, 152f, 153f, 154f, 155f, 156f, 157f, 158f, 159f, 160f, 161f, 162f, 163f, 164f, 165f, 166f, 167f, 168f, 169f, 170f, 171f, 172f, 173f, 174f, 175f, 176f, 177f, 178f, 179f, 180f, 181f, 182f, 183f, 184f, 185f, 186f, 187f, 188f, 189f, 190f, 191f, 192f, 193f, 194f, 195f, 196f, 197f, 198f, 199f, 200f, 201f, 202f, 203f, 204f, 205f, 206f, 207f, 208f, 209f, 210f, 211f, 212f, 213f, 214f, 215f, 216f, 217f, 218f, 219f, 220f, 221f, 222f, 223f, 224f, 225f, 226f, 227f, 228f, 229f, 230f, 231f, 232f, 233f, 234f, 235f, 236f, 237f, 238f, 239f, 240f, 241f, 242f, 243f, 244f, 245f, 246f, 247f, 248f, 249f, 250f, 251f, 252f, 253f, 254f, 255f, 256f, 257f, 258f, 259f, 260f, 261f, 262f, 263f, 264f, 265f, 266f, 267f, 268f, 269f, 270f, 271f, 272f, 273f, 274f, 275f, 276f, 277f, 278f, 279f, 280f, 281f, 282f, 283f, 284f, 285f, 286f, 287f, 288f, 289f, 290f, 291f, 292f, 293f, 294f, 295f, 296f, 297f, 298f, 299f, 300f, 301f, 302f, 303f, 304f, 305f, 306f, 307f, 308f, 309f, 310f, 311f, 312f, 313f, 314f, 315f, 316f, 317f, 318f, 319f, 320f, 321f, 322f, 323f, 324f, 325f, 326f, 327f, 328f, 329f, 330f, 331f, 332f, 333f, 334f, 335f, 336f, 337f, 338f, 339f, 340f, 341f, 342f, 343f, 344f, 345f, 346f, 347f, 348f, 349f, 350f, 351f, 352f, 353f, 354f, 355f, 356f, 357f, 358f, 359f, 360f, 361f, 362f, 363f, 364f, 365f, 366f, 367f, 368f, 369f, 370f, 371f, 372f, 373f, 374f, 375f, 376f, 377f, 378f, 379f, 380f, 381f, 382f, 383f, 384f, 385f, 386f, 387f, 388f, 389f, 390f, 391f, 392f, 393f, 394f, 395f, 396f, 397f, 398f, 399f, 400f, 401f, 402f, 403f, 404f, 405f, 406f, 407f, 408f, 409f, 410f, 411f, 412f, 413f, 414f, 415f, 416f, 417f, 418f, 419f, 420f, 421f, 422f, 423f, 424f, 425f, 426f, 427f, 428f, 429f, 430f, 431f, 432f, 433f, 434f, 435f, 436f, 437f, 438f, 439f, 440f, 441f, 442f, 443f, 444f, 445f, 446f, 447f, 448f, 449f, 450f, 451f, 452f, 453f, 454f, 455f, 456f, 457f, 458f, 459f, 460f, 461f, 462f, 463f, 464f, 465f, 466f, 467f, 468f, 469f, 470f, 471f, 472f, 473f, 474f, 475f, 476f, 477f, 478f, 479f, 480f, 481f, 482f, 483f, 484f, 485f, 486f, 487f, 488f, 489f, 490f, 491f, 492f, 493f, 494f, 495f, 496f, 497f, 498f, 499f, 500f, 501f, 502f, 503f, 504f, 505f, 506f, 507f, 508f, 509f, 510f, 511f, 512f, 513f, 514f, 515f, 516f, 517f, 518f, 519f, 520f, 521f, 522f, 523f, 524f, 525f, 526f, 527f, 528f, 529f, 530f, 531f, 532f, 533f, 534f, 535f, 536f, 537f, 538f, 539f, 540f, 541f, 542f, 543f, 544f, 545f, 546f, 547f, 548f, 549f, 550f, 551f, 552f, 553f, 554f, 555f, 556f, 557f, 558f, 559f, 560f, 561f, 562f, 563f, 564f, 565f, 566f, 567f, 568f, 569f, 570f, 571f, 572f, 573f, 574f, 575f, 576f, 577f, 578f, 579f, 580f, 581f, 582f, 583f, 584f, 585f, 586f, 587f, 588f, 589f, 590f, 591f, 592f, 593f, 594f, 595f, 596f, 597f, 598f, 599f, 600f, 601f, 602f, 603f, 604f, 605f, 606f, 607f, 608f, 609f, 610f, 611f, 612f, 613f, 614f, 615f, 616f, 617f, 618f, 619f, 620f, 621f, 622f, 623f, 624f, 625f, 626f, 627f, 628f, 629f, 630f, 631f, 632f, 633f, 634f, 635f, 636f, 637f, 638f, 639f, 640f, 641f, 642f, 643f, 644f, 645f, 646f, 647f, 648f, 649f, 650f, 651f, 652f, 653f, 654f, 655f, 656f, 657f, 658f, 659f, 660f, 661f, 662f, 663f, 664f, 665f, 666f, 667f, 668f, 669f, 670f, 671f, 672f, 673f, 674f, 675f, 676f, 677f, 678f, 679f, 680f, 681f, 682f, 683f, 684f, 685f, 686f, 687f, 688f, 689f, 690f, 691f, 692f, 693f, 694f, 695f, 696f, 697f, 698f, 699f, 700f, 701f, 702f, 703f, 704f, 705f, 706f, 707f,



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss J7	Truss Type Jack-Open	Qty 2	Ply 1	SUMMIT/STONE CREEK #92/MO I45088560
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:06 2021 Page 1
ID:730jNkFGYePzNd9PEe1z6czlwVq-8tFZOvzzX7mgXyPzc?WKT?oQolsiKbbYE28sKLzd1ct



Scale = 1:15.7

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-3-0,0-2-7]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.03	6	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.04	6	>999
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.03	5	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR				
				PLATES		GRIP	
				MT20		197/144	
				Weight: 13 lb		FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=94(LC 12)
Max Uplift 4=-46(LC 12), 2=-35(LC 12), 5=-16(LC 12)
Max Grav 4=98(LC 1), 2=243(LC 1), 5=69(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 2-0-5, Interior(1) 2-0-5 to 3-10-3 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.
- 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.



March 8, 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

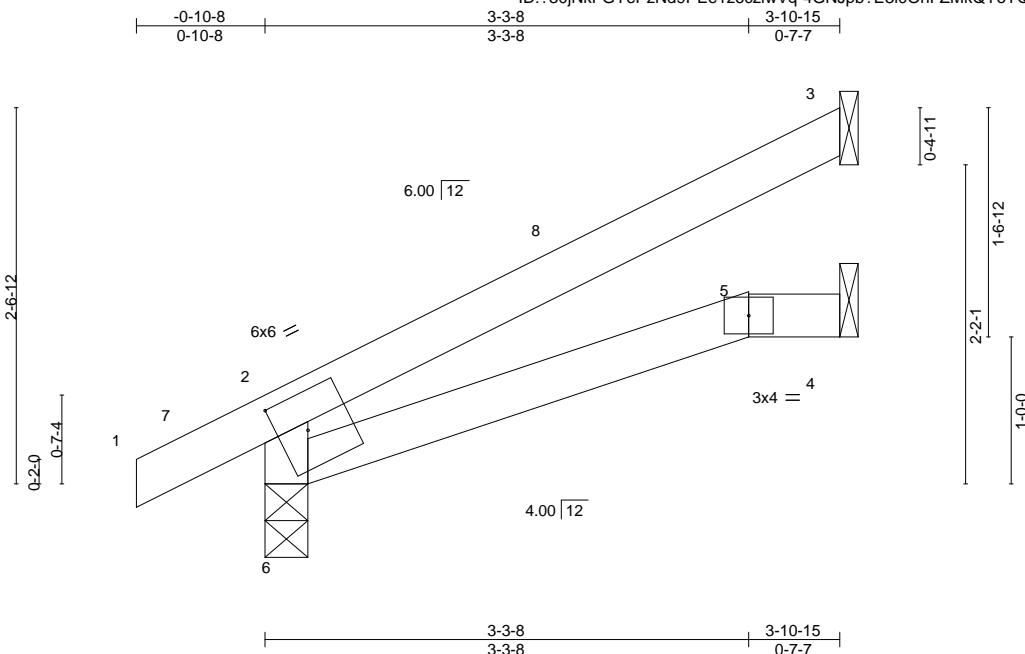
Job 2704670	Truss J8	Truss Type Jack-Open	Qty 2	Ply 1	SUMMIT/STONE CREEK #92/MO I45088561
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:08 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-4GNJpb?E3l0OnFZMkQYoYQume5XtoV5riMdzPEzd1cr



Scale = 1:15.7

Plate Offsets (X,Y)--		[2:0-2-7,0-3-0]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.19		Vert(LL) -0.01 5-6	>999	240	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.13		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-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 3-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 6=0-3-8
Max Horz 6=88(LC 12)
Max Uplift 3=65(LC 12), 6=37(LC 12)
Max Grav 3=114(LC 1), 4=69(LC 3), 6=248(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 3-10-3 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) 6 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, 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 8, 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

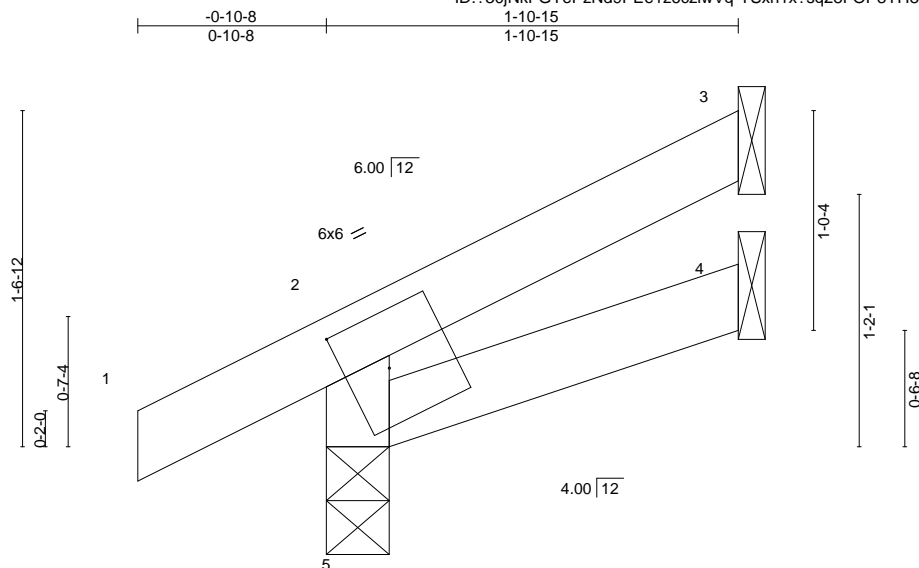
Job 2704670	Truss J9	Truss Type Jack-Open	Qty 2	Ply 1	SUMMIT/STONE CREEK #92/MO I45088562
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:09 2021 Page 1

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Scale = 1:10.7

Plate Offsets (X,Y)-- [2:0-2-7,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	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: 6 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 6-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=48(LC 12)
Max Uplift 3=-30(LC 12), 5=-30(LC 12)
Max Grav 3=44(LC 1), 4=31(LC 3), 5=171(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.



March 8, 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 2704670	Truss J10	Truss Type Jack-Open	Qty 4	Ply 1	SUMMIT/STONE CREEK #92/MO I45088563
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:50 2021 Page 1

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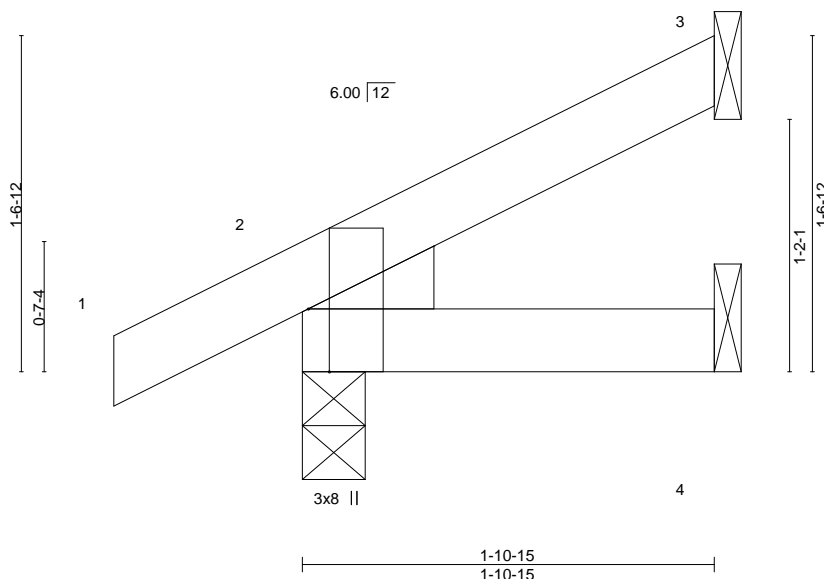


Plate Offsets (X,Y)--		[2:0-3-8,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.05		Vert(LL)	-0.00 7	>999	240	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.03		Vert(CT)	-0.00 7	>999	180		
BCLL 0.0		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.00 3	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-MP						Weight: 7 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 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=54(LC 12)

Max Uplift 3=27(LC 12), 2=28(LC 12), 4=4(LC 12)

Max Grav 3=48(LC 1), 2=161(LC 1), 4=32(LC 3)

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

NOTES-

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



March 8, 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 2704670	Truss J11	Truss Type Jack-Open	Qty 4	Ply 1	SUMMIT/STONE CREEK #92/MO I45088564
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:52 2021 Page 1

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0-10-8

1-10-15
1-10-15

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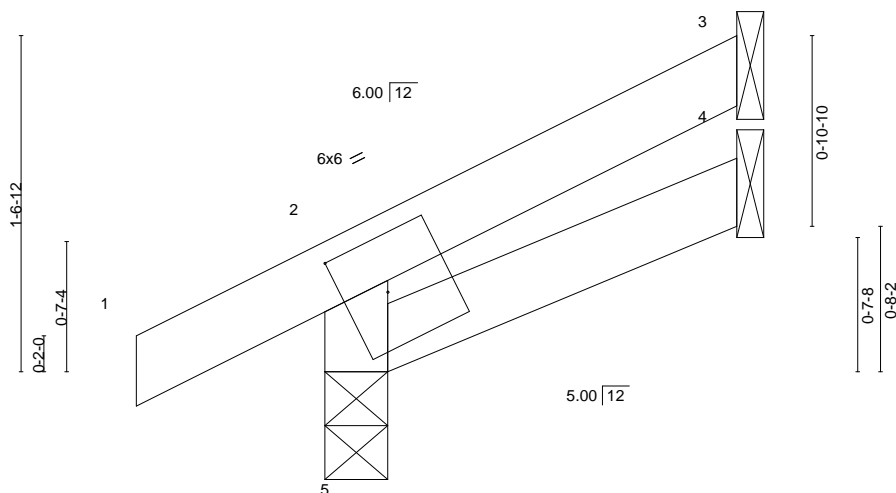


Plate Offsets (X,Y)-- [2:0-2-7,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	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: 6 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 6-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=48(LC 12)
Max Uplift 3=-30(LC 12), 5=-30(LC 12)
Max Grav 3=44(LC 1), 4=31(LC 3), 5=171(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 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
- 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, 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.



March 8, 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

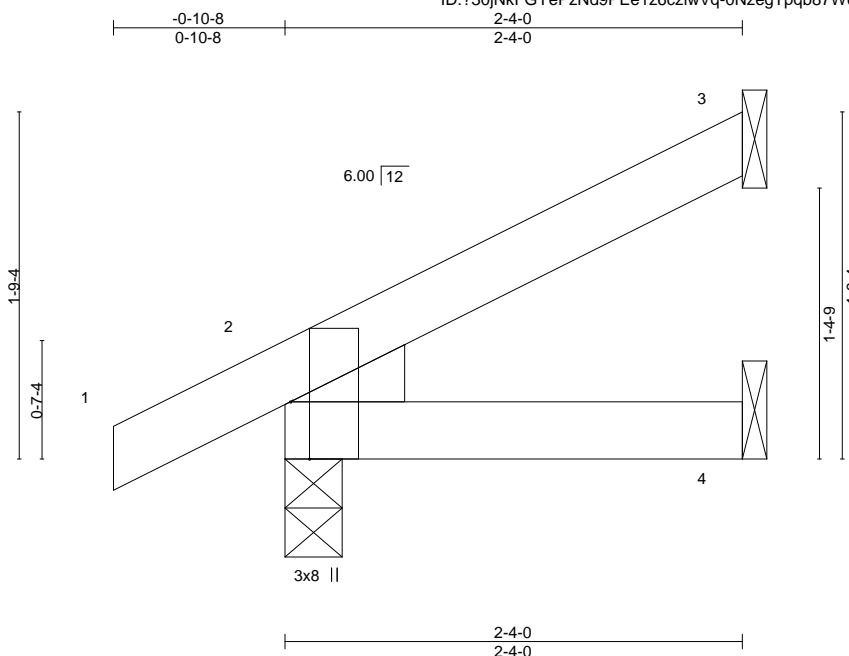
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss J12	Truss Type Jack-Open	Qty 2	Ply 1	SUMMIT/STONE CREEK #92/MO I45088565
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:53 2021 Page 1
ID: ?30jNkFGYePzNd9PEe1z6czlwVq-0NzegTpqb87WUywTLmnHRFmFd3SlnjNeFXVgObzd1d4



Scale = 1:11.8

Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05
TCDL 10.0	Lumber DOL	1.15	BC 0.05
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 8 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-4-0 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=62(LC 12)
Max Uplift 3=34(LC 12), 2=29(LC 12), 4=4(LC 12)
Max Grav 3=61(LC 1), 2=175(LC 1), 4=40(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, 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.



March 8, 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 2704670	Truss J13	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088566
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:54 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-UZX1tpqSMRGN56VfvUIWzTIPiSnOW9dnTBEDw2zd1d3

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

Scale = 1:13.4

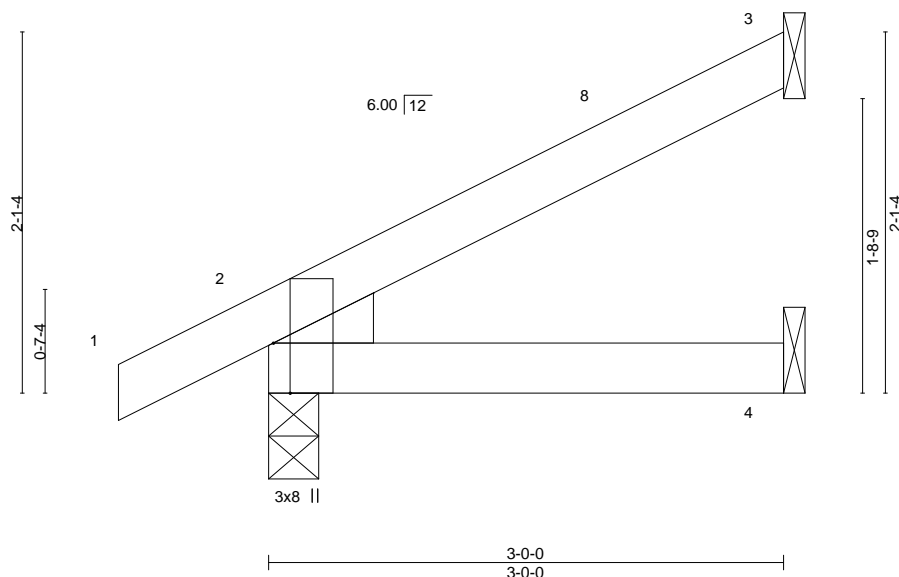


Plate Offsets (X,Y)--		[2:0-3-8,Edge]										
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	0.01	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	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

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 3-0-0 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=75(LC 12)

Max Uplift 3=45(LC 12), 2=32(LC 12), 4=3(LC 12)

Max Grav 3=83(LC 1), 2=203(LC 1), 4=53(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 2-11-4 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, 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.



March 8, 2021

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

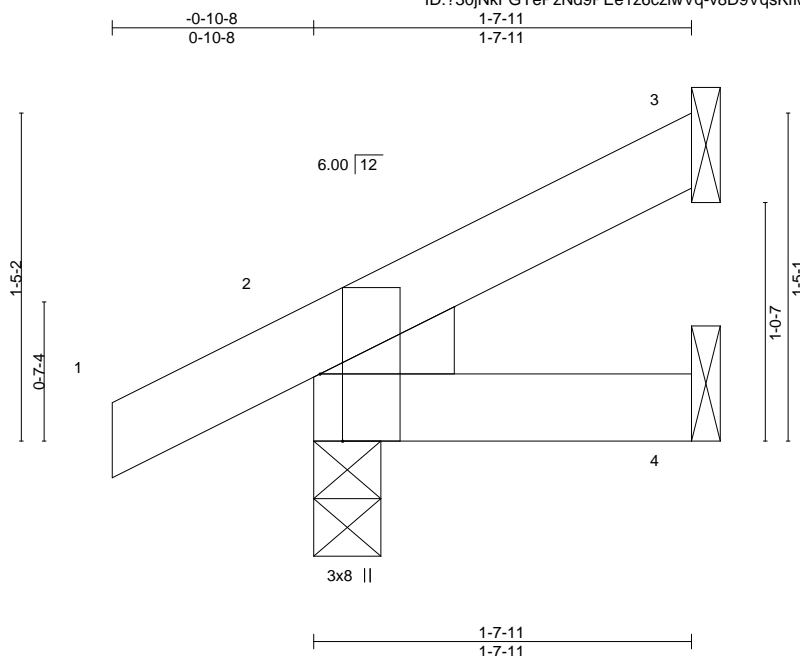
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss J14	Truss Type Jack-Open	Qty 2	Ply 1	SUMMIT/STONE CREEK #92/MO I45088567
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:39:57 2021 Page 1
ID:730jNkFGYePzNd9PEe1z6czlwVq-v8D9VqsKfMxyZDEacsDb5wxcgp2jWVND9TuXNzd1d0



Scale = 1:10.0

Plate Offsets (X,Y)-- [2:0-3-8,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00 7	>999	240
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				
						PLATES	GRIP
						MT20	197/144
						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-7-11 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=49(LC 12)
Max Uplift 3=22(LC 12), 2=27(LC 12), 4=4(LC 12)
Max Grav 3=38(LC 1), 2=151(LC 1), 4=27(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, 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.



March 8, 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 2704670	Truss JG2	Truss Type Half Hip Girder	Qty 2	Ply 1	SUMMIT/STONE CREEK #92/MO Job Reference (optional)	I45088569
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:28 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-V6at0REnMuYyAK5CvdvUMejEg9O2UYnnlTT164zd1cX

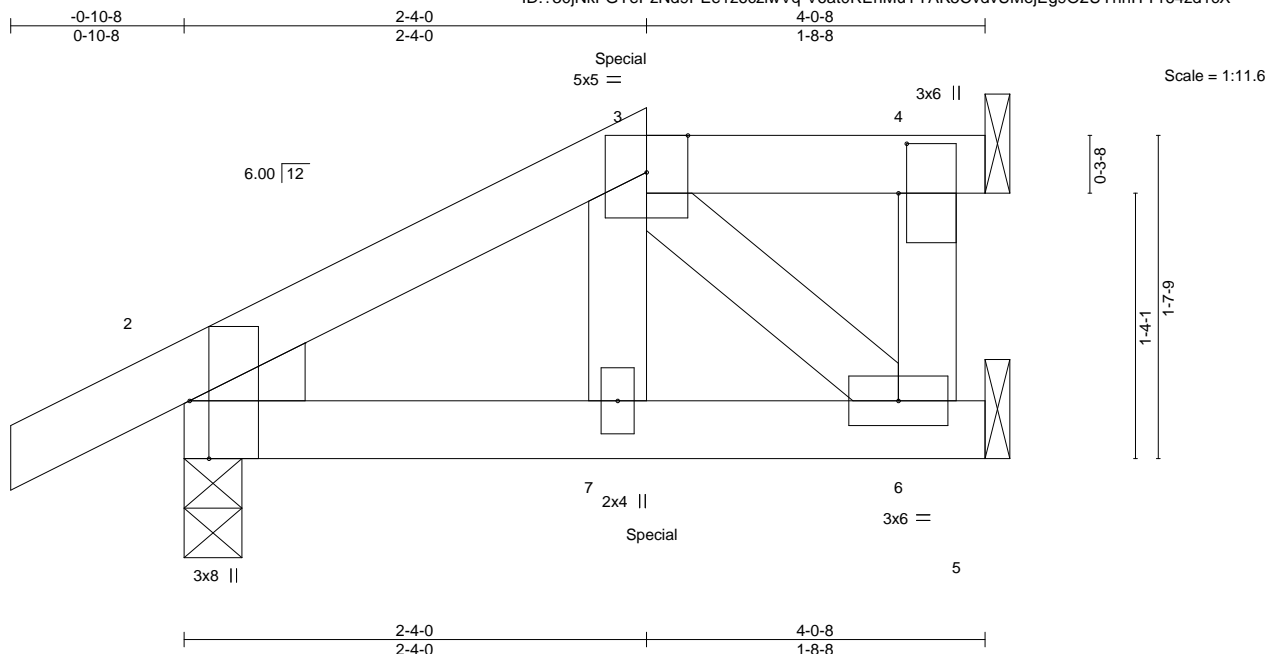


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [4:0-3-0,0-0-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	10	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 16 lb FT = 20%		

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical, 4=Mechanical
Max Horz 2=59(LC 1), 4=59(LC 1)
Max Uplift 2=81(LC 8), 6=52(LC 4)
Max Grav 2=267(LC 1), 6=159(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; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 49 lb down and 88 lb up at 2-4-0 on top chord, and 32 lb down and 27 lb up at 2-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 7=-21(B) 3=-1(B)



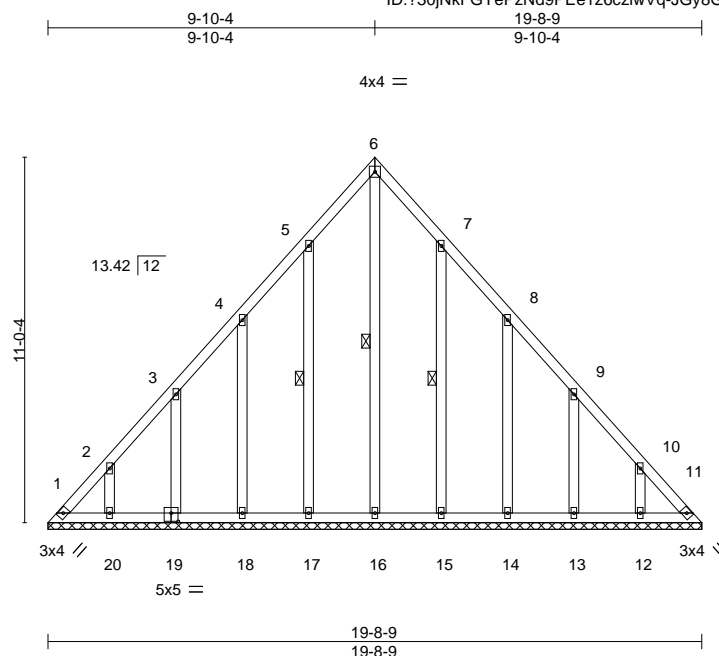
March 8, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:69.5

Plate Offsets (X,Y)-- [19:0-2-8,0-3-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 111 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 6-16, 5-17, 7-15

REACTIONS.

ONS. All bearings 19-8-9.
(lb) - Max Horz 1=-287(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-152(LC 10), 11=-102(LC 11), 19=-148(LC 12), 17=-140(LC 12), 18=-146(LC 12), 20=-142(LC 12), 15=-138(LC 13), 14=-148(LC 13), 13=-143(LC 13), 12=-140(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 19, 17, 18, 20, 15, 14, 13, 12 except 1=299(LC 12), 11=262(LC 13), 16=255(LC 13)

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

max. Comp/max. Ten. Air forces 250 (lb) or less except when shown:
 TOP CHORD 1-2=-418/262, 2-3=-291/210, 10-11=-369/251
 BOT CHORD 1-20=-187/274, 19-20=-187/274, 18-19=-180/271, 17-18=-180/271, 16-17=-180/271,
 15-16=-180/271, 14-15=-180/271, 13-14=-180/271, 12-13=-180/271, 11-12=-180/271

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) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 9-10-4, Exterior(2R) 9-10-4 to 12-10-4, Interior(1) 12-10-4 to 19-4-10 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 1, 102 lb uplift at joint 11, 148 lb uplift at joint 19, 140 lb uplift at joint 17, 146 lb uplift at joint 18, 142 lb uplift at joint 20, 138 lb uplift at joint 15, 148 lb uplift at joint 14, 143 lb uplift at joint 13 and 140 lb uplift at joint 12.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 8, 2021

 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 READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MMF/473 Rev. 3/19/2020 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

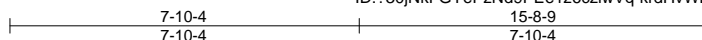
Job 2704670	Truss L2	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088571
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

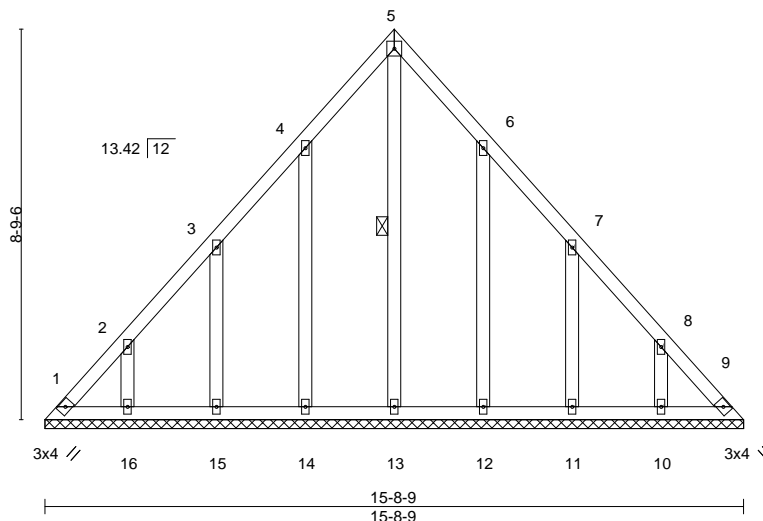
Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:37 2021 Page 1

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Scale = 1:51.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.01	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 79 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins.

BOT CHORD

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

WEBS

1 Row at midpt 5-13

REACTIONS.

All bearings 15-8-9.

(lb) - Max Horz 1=-227(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 9 except 1=-106(LC 10), 14=-145(LC 12), 15=-145(LC 12), 16=-139(LC 12), 12=-143(LC 13), 11=-146(LC 13), 10=-139(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

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

TOP CHORD 1-2=-310/197, 8-9=-279/193

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) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 7-10-4, Exterior(2R) 7-10-4 to 10-10-4, Interior(1) 10-10-4 to 15-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) All plates are 2x4 MT20 unless otherwise indicated.

4) Gable requires continuous bottom chord bearing.

5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 1=106, 14=145, 15=145, 16=139, 12=143, 11=146, 10=139.

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.



March 8, 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 2704670	Truss L3	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088572
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:42 2021 Page 1					
Job Reference (optional) ID: ?30jNkFGYePzNd9PEe1z6czlwVq-4oRayDPZ3BJZsUAujZ9mwbldApAULsvrWfsmcGzd1cJ					

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:42 2021 Page 1

ID: ?30jNkFGYePzNd9PEe1z6czlwVq-4oRayDPZ3BJZsUAujZ9mwbldApAULsvrWfsmcGzd1cJ

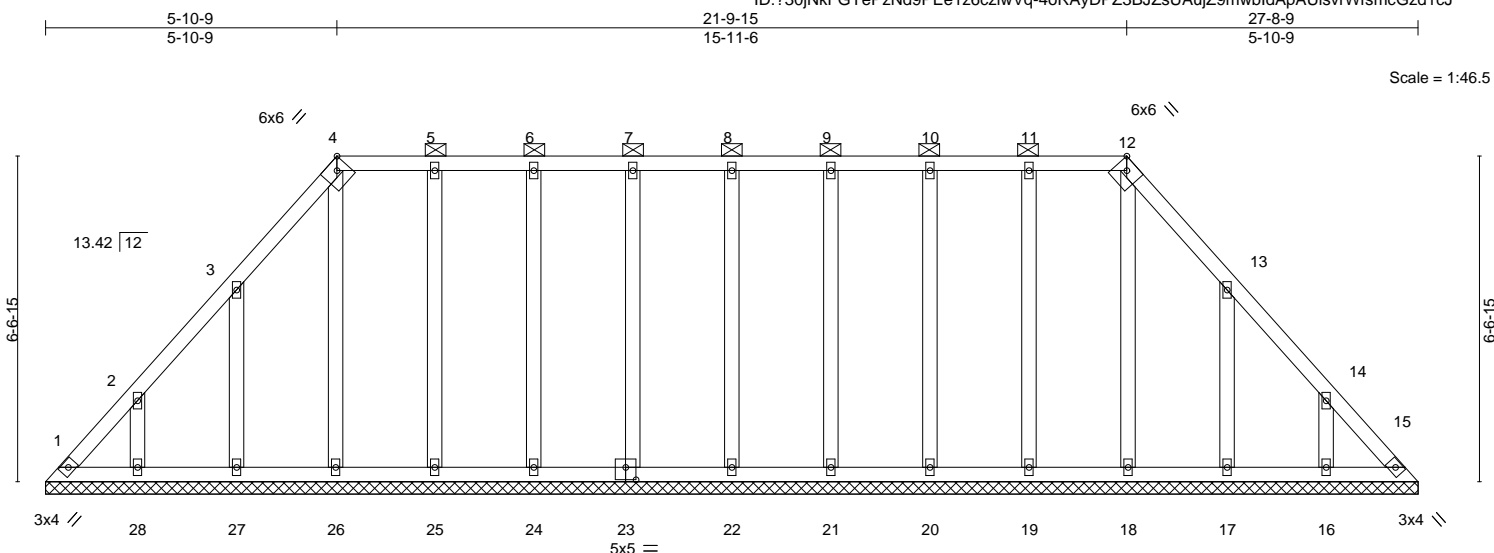


Plate Offsets (X,Y)--		[4:0-2-10,Edge], [12:0-2-10,Edge], [23:0-2-8,0-3-0]	
LOADING (psf)		SPACING-- 2-0-0	
TCLL	25.0	Plate Grip DOL	1.15
TCDL	10.0	Lumber DOL	1.15
BCLL	0.0	Rep Stress Incr	YES
BCDL	10.0	Code	IRC2018/TPI2014
		CSI.	
		TC	0.06
		BC	0.03
		WB	0.10
		Matrix-S	
		DEFL.	
		in (loc)	l/defl L/d
		Vert(LL)	n/a - n/a 999
		Vert(CT)	n/a - n/a 999
		Horz(CT)	0.01 15 n/a n/a
		PLATES	
		MT20	197/144
		GRIP	
		Weight: 142 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.): 4-12.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 27-8-9.
(lb) - Max Horz 1=168(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 15, 23, 22, 24, 25, 26, 21, 20, 19 except 27=156(LC 12), 28=138(LC 12), 17=155(LC 13), 16=138(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 15, 23, 22, 24, 25, 26, 27, 28, 21, 20, 19, 18, 17, 16

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) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 5-10-9, Exterior(2R) 5-10-9 to 9-10-4, Interior(1) 9-10-4 to 21-9-15, Exterior(2R) 21-9-15 to 25-10-4, Interior(1) 25-10-4 to 27-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 23, 22, 24, 25, 26, 21, 20, 19 except (jt=lb) 27=156, 28=138, 17=155, 16=138.
- This truss 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.



March 8, 2021

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

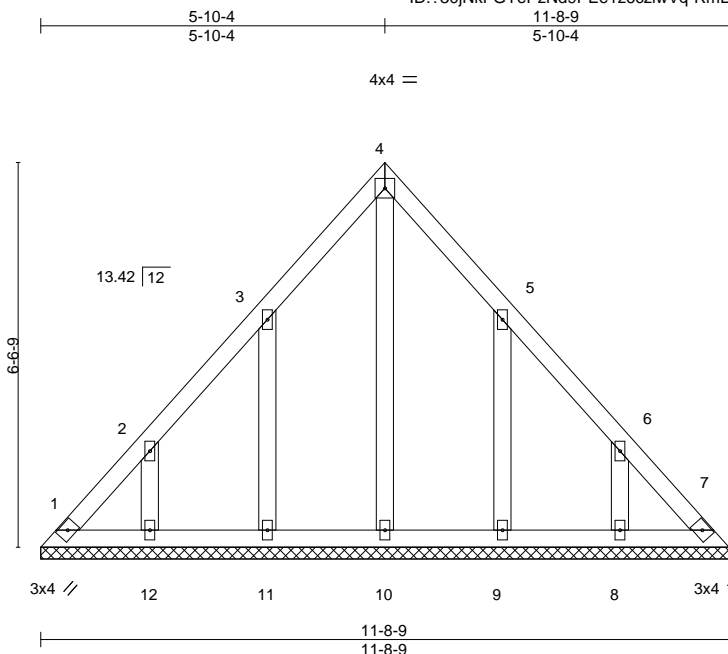
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss L4	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088573
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:47 2021 Page 1
ID:730jNkFGYePzNd9PEe1z6czlwVq-RmE3?wThjtjxyF2rW6lxd?UwqtCQ7bafwaXHTzd1cE



Scale = 1:39.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 51 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 11-8-9.
(lb) - Max Horz 1=167(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=150(LC 12), 12=139(LC 12), 9=149(LC 13), 8=140(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 5-10-4, Exterior(2R) 5-10-4 to 8-10-4, Interior(1) 8-10-4 to 11-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=150, 12=139, 9=149, 8=140.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 8, 2021

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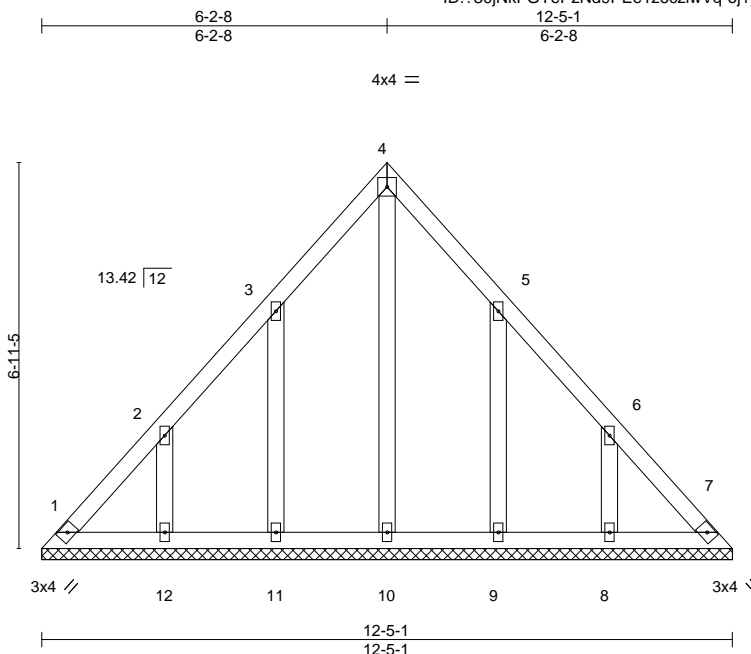
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss L5	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088574
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:52 2021 Page 1
ID:730jNkFGYePzNd9PEe1z6czlwVq-oj1y2eXqIGZ830xpJfL6KiiKXrah5NZJpCllzhzd1c9



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)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 55 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 12-5-1.
(lb) - Max Horz 1=177(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=146(LC 12), 12=156(LC 12), 9=144(LC 13), 8=156(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 6-2-8, Exterior(2R) 6-2-8 to 9-2-8, Interior(1) 9-2-8 to 12-1-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=146, 12=156, 9=144, 8=156.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 8, 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

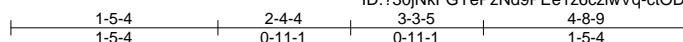


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss L6	Truss Type Lay-In Gable	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088575
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:40:58 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-ctODJhbbH6KlnxOzfwSWZyyMiFdKV6CCB8lcAKzd1c3



Scale: 3/4"=1'

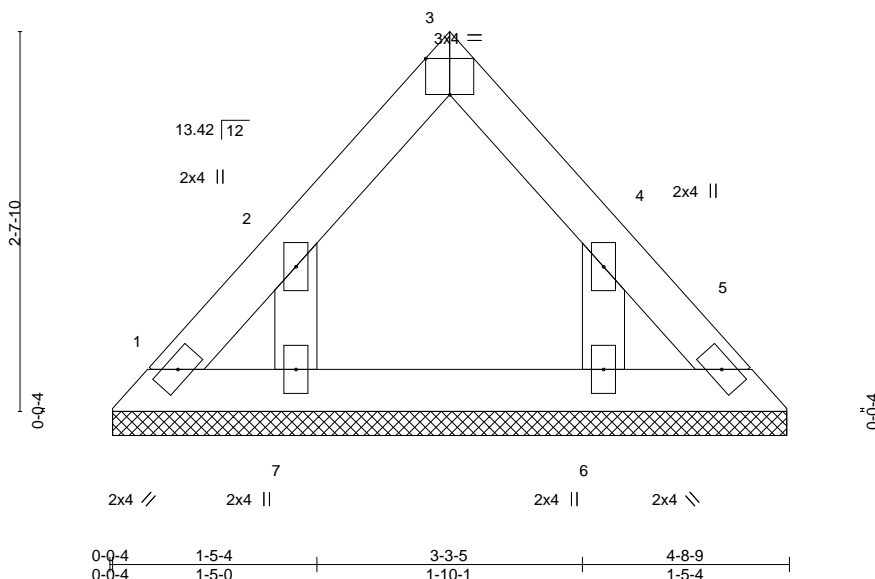


Plate Offsets (X,Y)-- [3:Edge,0-3-0]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	n/a	-	n/a
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	5	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P				
				PLATES	GRIP		
				MT20	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 or 4-8-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 4-8-1.
(lb) - Max Horz 1=61(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6, 7
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6, 7

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, 5, 6, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 8, 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

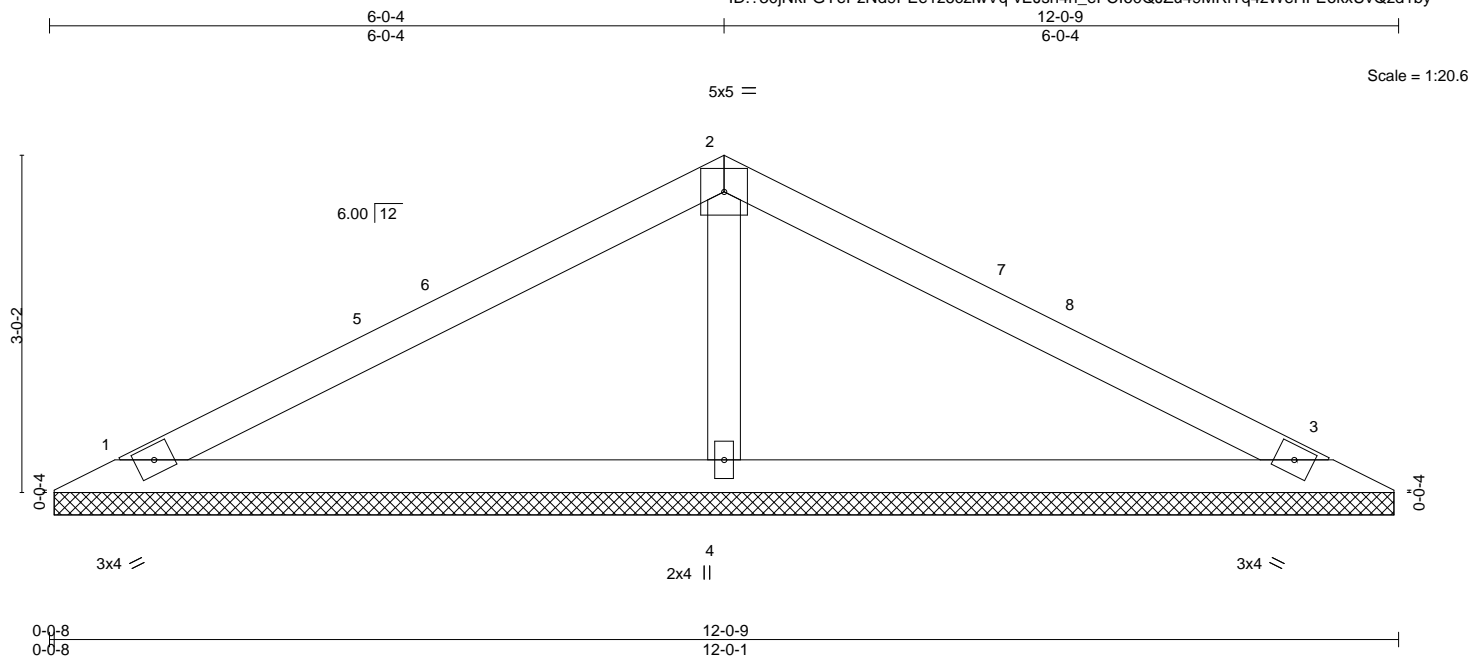


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss V1	Truss Type Valley	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088576
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:41:05 2021 Page 1

ID: ?30jNkFGYePzNd9PEe1z6czlwVq-vEJsn4h_eFCI60QJZu49MRITq4zWeHFEokxUvQzd1by



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 0.41	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 30 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=11-11-9, 3=11-11-9, 4=11-11-9
Max Horz 1=48(LC 16)
Max Uplift 1=-52(LC 12), 3=-61(LC 13), 4=-56(LC 12)
Max Grav 1=224(LC 25), 3=224(LC 26), 4=528(LC 1)

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

WEBS 2-4=-365/198

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-0-4, Exterior(2R) 6-0-4 to 9-0-4, Interior(1) 9-0-4 to 11-5-0 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
- 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.



March 8, 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

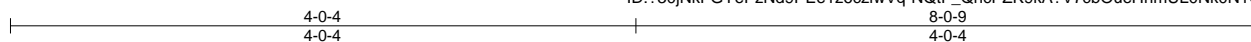
Job 2704670	Truss V2	Truss Type Valley	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088577
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Builders FirstSource (Valley Center),

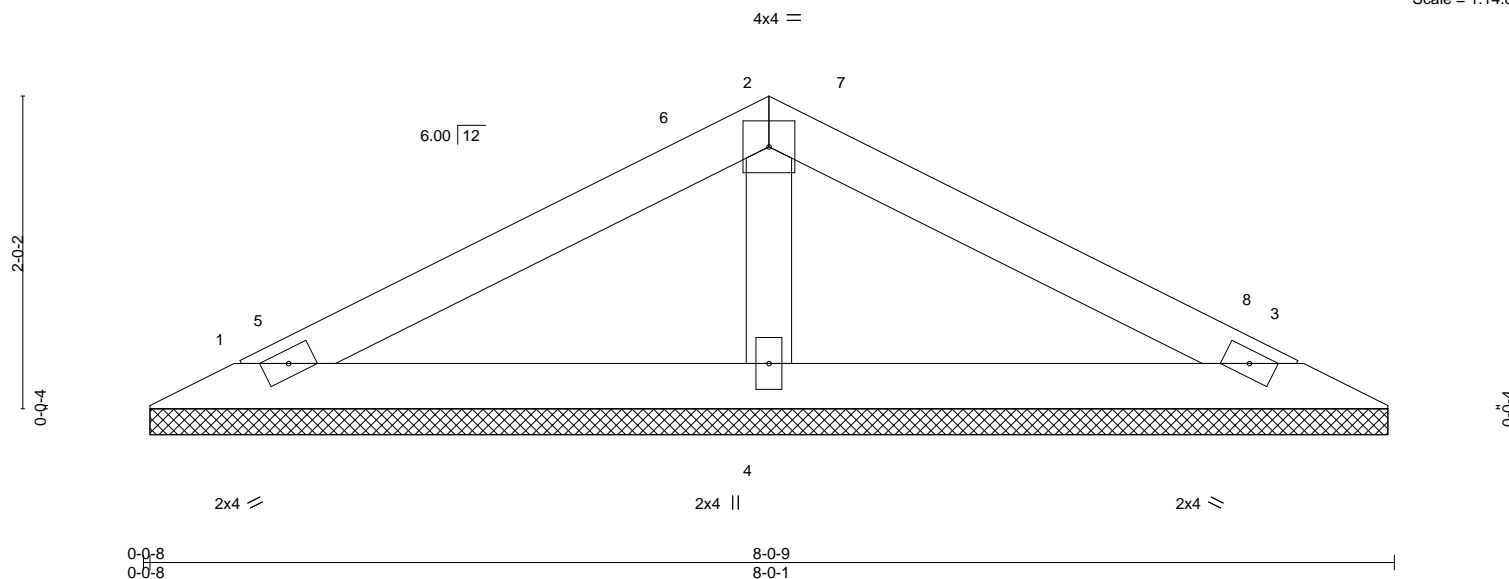
Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:41:06 2021 Page 1

ID: ?30jNkFGYePzNd9PEe1z6czlwVq-NQtF_QhcPZK9kA?V7cbOueHhmUL0Nk0N1Oh1Rtd1bx



Scale = 1:14.8



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 0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-11-9, 3=7-11-9, 4=7-11-9
Max Horz 1=30(LC 12)
Max Uplift 1=40(LC 12), 3=46(LC 13), 4=21(LC 12)
Max Grav 1=155(LC 1), 3=155(LC 1), 4=300(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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-0-4, Exterior(2R) 4-0-4 to 7-0-4, Interior(1) 7-0-4 to 7-5-0 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
- 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.



March 8, 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

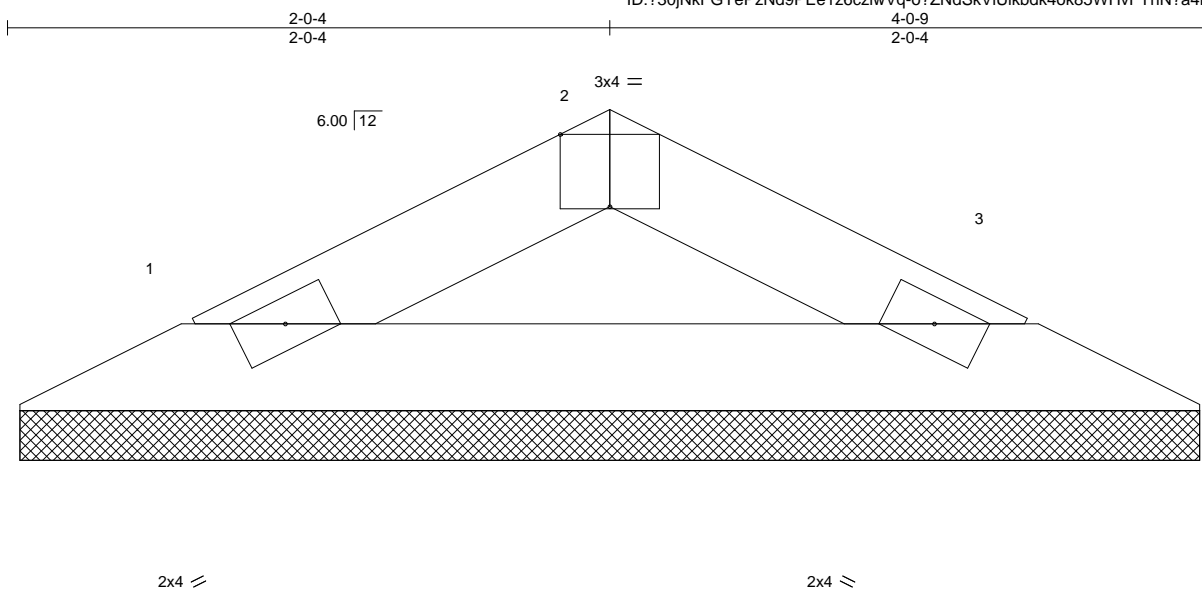
Job 2704670	Truss V3	Truss Type Valley	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088578
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:41:09 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-o?ZNdSkViUikbdk4ok85WHvFYhN?a4BqjLv2Bzd1bu



Scale = 1:7.7

0-0-8			4-0-9					
0-0-8			4-0-1					
Plate Offsets (X,Y)-- [2:0-2:0,Edge]								
LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC	0.05	Vert(LL) n/a - n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL 1.15	BC	0.08	Vert(CT) n/a - n/a	999		
BCLL	0.0	Rep Stress Incr YES	WB	0.00	Horz(CT) 0.00 3 n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014	Matrix-P				Weight: 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 4-0-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-11-9, 3=3-11-9
Max Horz 1=12(LC 12)
Max Uplift 1=21(LC 12), 3=21(LC 13)
Max Grav 1=125(LC 1), 3=125(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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 8, 2021

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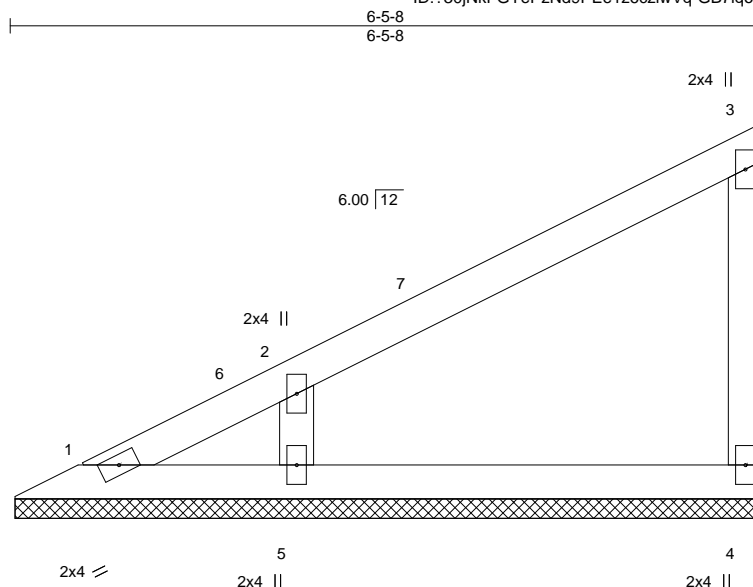


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss V4	Truss Type Valley	Qty 2	Ply 1	SUMMIT/STONE CREEK #92/MO I45088579
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:41:10 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-GB7lqol7ToqbDnJGMRgK3USO95jXJXhzy?ffaezd1bt



Scale = 1:19.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 19 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-5-0, 4=6-5-0, 5=6-5-0
Max Horz 1=119(LC 9)
Max Uplift 4=37(LC 12), 5=121(LC 12)
Max Grav 1=46(LC 9), 4=141(LC 1), 5=356(LC 1)

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

WEBS 2-5=-277/273

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-3-12 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) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=121.
- 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.



March 8, 2021

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

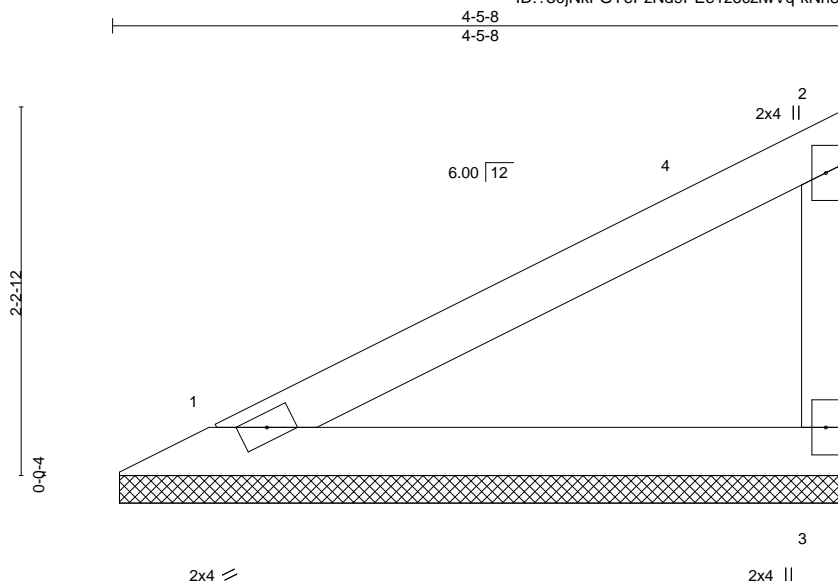
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss V5	Truss Type Valley	Qty 2	Ply 1	SUMMIT/STONE CREEK #92/MO I45088580
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:41:11 2021 Page 1
ID:730jNkFGYePzNd9PEe1z6czlwVq-kNh818lID5ySqxuTw9BZbi?XsV1c2_h6BfOo74zd1bs



Scale = 1:13.9

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 0.25	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					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 4-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-5-0, 3=4-5-0
Max Horz 1=77(LC 9)
Max Uplift 1=28(LC 12), 3=47(LC 12)
Max Grav 1=166(LC 1), 3=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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-3-12 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) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



March 8, 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 2704670	Truss V6	Truss Type Valley	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088581
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Builders FirstSource (Valley Center),

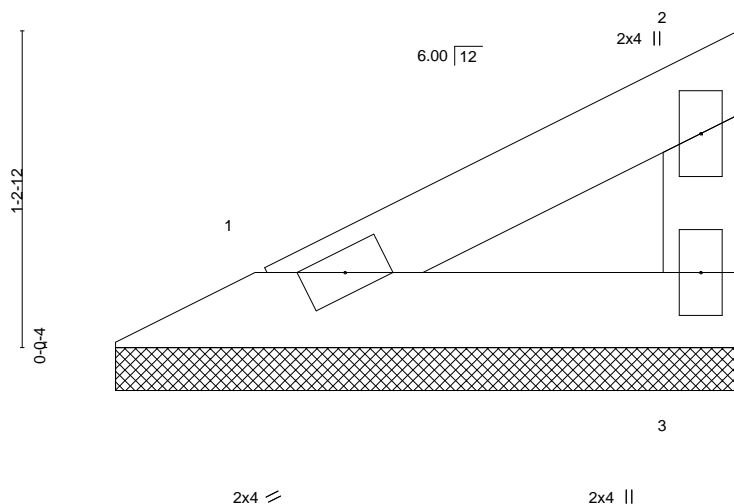
Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:41:11 2021 Page 1

ID:730jNkFGYePzNd9PEe1z6czlwVq-kNh818IID5ySquTw9BZbi7a2V3K2_h6BfOo74zd1bs

2-5-8
2-5-8

Scale = 1:8.9



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 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 6 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 2-5-8 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=2-5-0, 3=2-5-0

Max Horz 1=35(LC 9)

Max Uplift 1=13(LC 12), 3=22(LC 12)

Max Grav 1=76(LC 1), 3=76(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) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



March 8, 2021

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



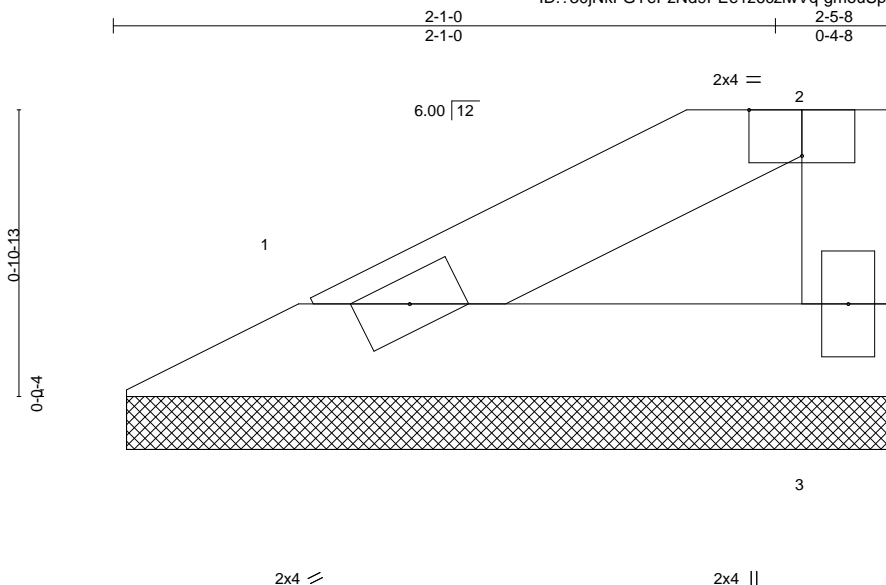
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2704670	Truss V7	Truss Type Valley	Qty 1	Ply 1	SUMMIT/STONE CREEK #92/MO I45088582
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:41:13 2021 Page 1
ID:730jNkFGYePzNd9PEe1z6cziwVg-gmouSpn?iJD94F1r1aD1g74wYIloWuBPeztvBzzd1bq



Scale = 1:7.3

Plate Offsets (X,Y)--		[2:0-2-0,Edge]											
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL 25.0		Plate Grip DOL	1.15	TC 0.05		Vert(LL)	n/a -	n/a	999	MT20	197/144		
TCDL 10.0		Lumber DOL	1.15	BC 0.02		Vert(CT)	n/a -	n/a	999				
BCLL 0.0		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.00 3	n/a	n/a				
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P						Weight: 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 2-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-5-0, 3=2-5-0
Max Horz 1=32(LC 9)
Max Uplift 1=14(LC 12), 3=21(LC 12)
Max Grav 1=76(LC 1), 3=76(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) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



March 8, 2021

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

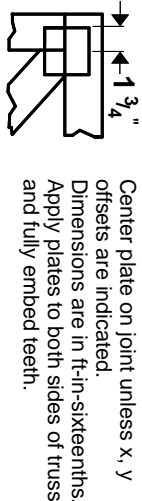
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



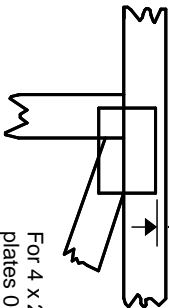
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



0- $\frac{1}{16}$ "



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

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

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

PLATE SIZE

4 X 4

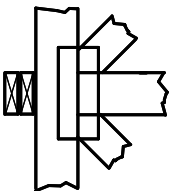
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



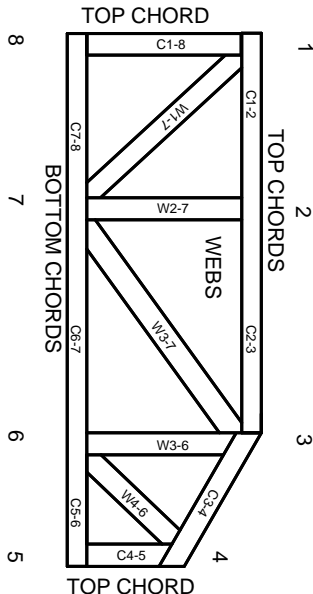
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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