



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/03/2021 4:55:11

MiTek USA, Inc.

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

Re: 2888681
Summit/11 Hawthorn

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: I47354455 thru I47354513

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

Missouri COA: Engineering 001193



August 9, 2021

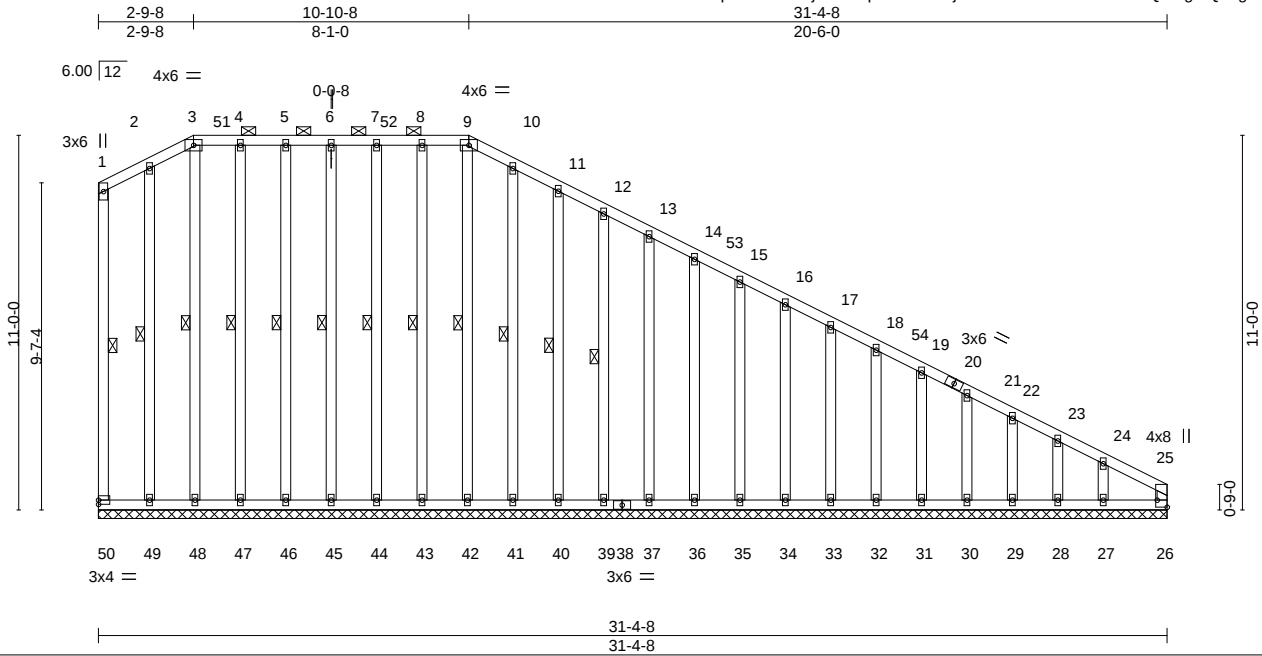
Sevier, Scott ,Engineer

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

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	A1	GABLE	1	1	147354455

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:58:50 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Y5jM70xUA0D1i5d2b1Msm9QSHgrkQcbgdH?yr0yqUzJ



Scale = 1:67.6

Plate Offsets (X,Y)-- [25:Edge,0-3-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.15		TC 0.44		Vert(LL) n/a - n/a 999		MT20	197/144
(Roof Snow=20.0)		Lumber DOL 1.15		BC 0.23		Vert(CT) n/a - n/a 999			
TCDL 10.0		Rep Stress Incr YES		WB 0.15		Horz(CT) 0.02 26 n/a n/a			
BCLL 0.0		Code IRC2018/TPI2014		Matrix-R				Weight: 268 lb	FT = 20%
BCDL 10.0									

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-9.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 47-48,46-47,45-46,44-45,43-44,42-43.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 1-50, 9-42, 8-43, 7-44, 6-45, 5-46, 4-47, 3-48, 2-49, 10-41, 11-40, 12-39
OTHERS 2x4 SPF No.2	

REACTIONS.	All bearings 31-4-8.
(lb) - Max Horz	50=-351(LC 12)
Max Uplift	All uplift 100 lb or less at joint(s) 50, 26, 42, 43, 44, 45, 46, 47, 48, 49, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29 except 27=-144(LC 10)
Max Grav	All reactions 250 lb or less at joint(s) 50, 26, 42, 43, 44, 45, 46, 47, 48, 49, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	17-18=-256/178, 18-19=-286/188, 19-21=-316/199, 21-22=-346/209, 22-23=-378/221, 23-24=-394/222, 24-25=-478/264
BOT CHORD	49-50=-231/425, 48-49=-231/425, 47-48=-231/425, 46-47=-231/425, 45-46=-231/425, 44-45=-231/425, 43-44=-231/425, 42-43=-231/425, 41-42=-231/425, 40-41=-231/425, 39-40=-231/425, 37-39=-231/425, 36-37=-231/425, 35-36=-231/425, 34-35=-231/425, 33-34=-231/425, 32-33=-231/425, 31-32=-231/425, 30-31=-231/425, 29-30=-231/425, 28-29=-231/425, 27-28=-231/425, 26-27=-231/425

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) 7-10-4 to 10-6-0, Corner(3R) 10-6-0 to 13-2-8, Exterior(2N) 13-2-8 to 18-7-0, Corner(3R) 18-7-0 to 21-7-0, Exterior(2N) 21-7-0 to 38-11-4 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 3) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) Provide adequate drainage to prevent water ponding.
 - 6) All plates are 2x4 MT20 unless otherwise indicated.
 - 7) Gable requires continuous bottom chord bearing.
 - 8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 9) Gable studs spaced at 1-4-0 oc.
 - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 50, 26, 42, 43, 44, 45, 46, 47, 48, 49, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29 except (jt=lb) 27=144.
 - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conform to standard ANSI/TPI 1.



August 9, 2021

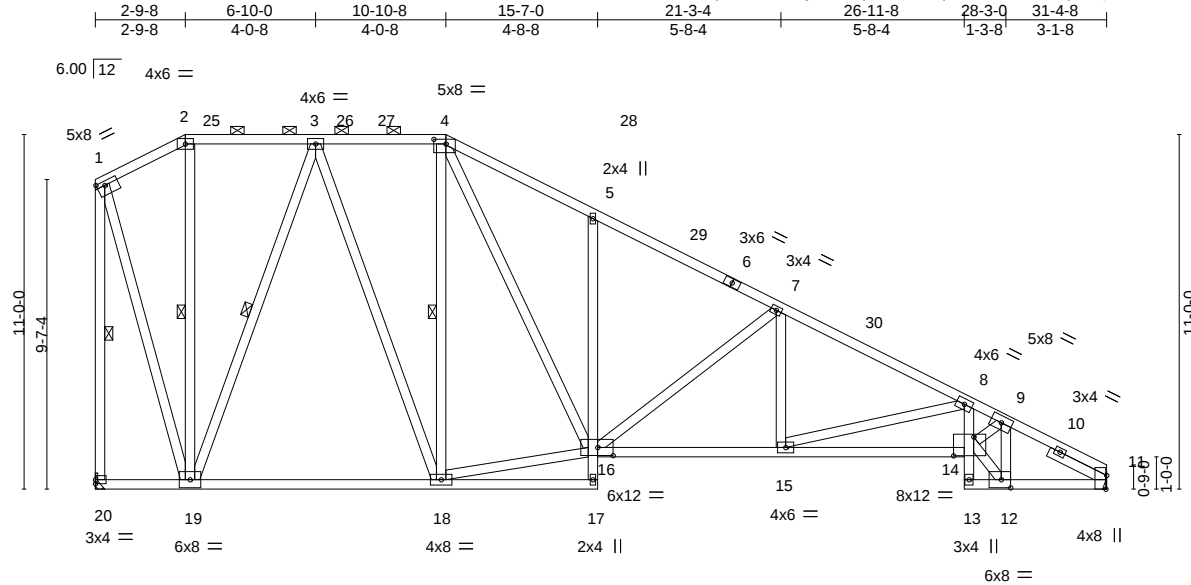
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	I47354455
2888681	A1	GABLE	1	1	Job Reference (optional)	

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

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354456
2888681	A2	Piggyback Base	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:58:59 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-nqmm05272nLHUpndQ0ze3lziIA1V1?hAhwf?yqUzA



Scale = 1:71.5

Plate Offsets (X,Y)--	[1:0-3-0,0-1-8], [4:0-4-8,0-1-12], [11:0-5-1,Edge], [12:0-3-8,0-3-0], [14:0-7-8,0-7-0], [16:0-5-12,0-3-0]
-----------------------	---

LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.52	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.91	Vert(LL) -0.19 14-15 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.96	Vert(CT) -0.34 14-15 >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.15 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 201 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-10-2 max.): 2-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 2-19, 3-19, 4-18, 1-20
SLIDER Right 2x4 SPF No.2 2-0-0	

REACTIONS.	(size) 20=Mechanical, 11=Mechanical
	Max Horz 20=-348(LC 12)
	Max Uplift 20=-121(LC 14), 11=-107(LC 14)
	Max Grav 20=1414(LC 32), 11=1492(LC 32)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-456/230, 2-3=-355/199, 3-4=-976/259, 4-5=-1995/356, 5-7=-2023/276, 7-8=-2868/303, 8-9=-3840/393, 9-11=-2341/255, 1-20=-1404/217
BOT CHORD	19-20=-220/336, 18-19=0/694, 5-16=-553/145, 15-16=-146/2501, 14-15=-318/3613, 8-14=-13/408, 12-13=-41/250, 11-12=-184/1987
WEBS	1-19=-220/1156, 3-19=-1012/208, 3-18=-125/883, 4-18=-883/139, 16-18=0/944, 4-16=-183/1600, 7-16=-1021/139, 7-15=0/470, 8-15=-1152/178, 9-12=-1746/162, 12-14=-190/2306, 9-14=-153/2009

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 7-10-4 to 10-6-0, Exterior(2R) 10-6-0 to 14-6-8, Interior(1) 14-6-8 to 18-7-0, Exterior(2R) 18-7-0 to 22-9-15, Interior(1) 22-9-15 to 39-1-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) Provide adequate drainage to prevent water ponding.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=121, 11=107.
 - 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.



August 9,2021

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354457
2888681	A3	Piggyback Base	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:01 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-kCuWRn4NaOcTWnzAKr3RjUNGc6SVVOEI9UA1ktyqUz8

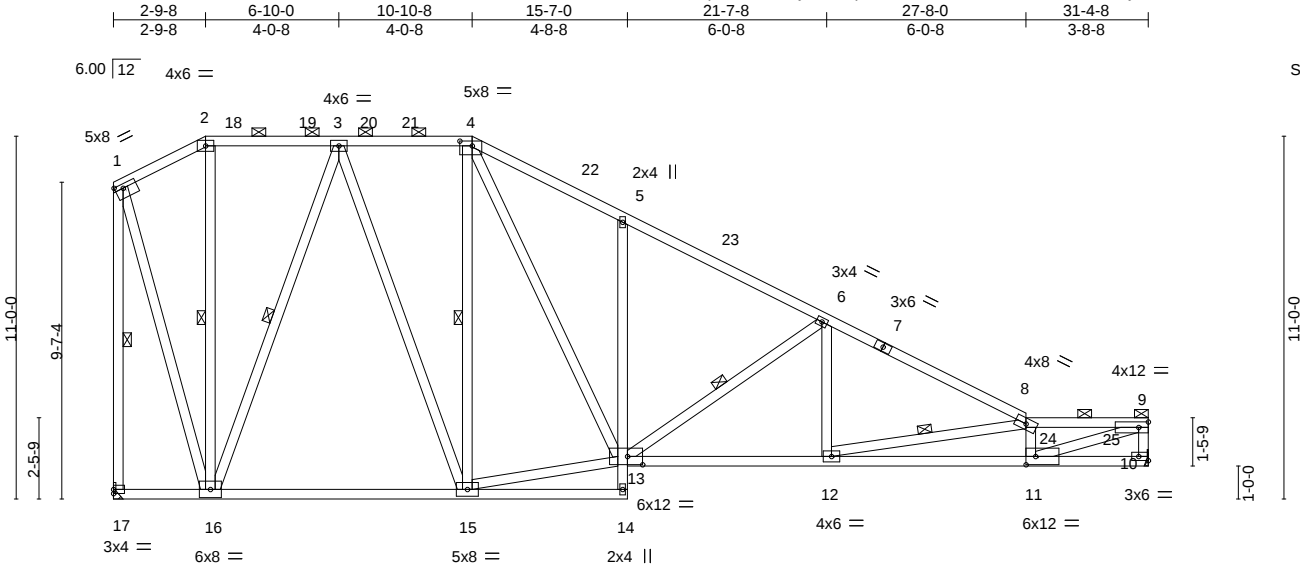


Plate Offsets (X,Y)--	[1:0-3-0,0-1-8], [4:0-4-8,0-1-12], [10:Edge,0-1-8], [11:0-3-8,0-3-0], [13:0-5-8,0-3-0]
-----------------------	--

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.75	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.79	Vert(LL) -0.25 11-12 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.99	Vert(CT) -0.43 11-12 >868 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.10 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 196 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-8-15 max.): 2-4, 8-9.
BOT CHORD 2x4 SPF No.2 *Except* 10-13: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 2-16, 3-16, 4-15, 6-13, 8-12, 1-17

REACTIONS. (size) 10=Mechanical, 17=Mechanical
 Max Horz 17=-339(LC 12)
 Max Uplift 10=-107(LC 14), 17=-120(LC 14)
 Max Grav 10=1532(LC 34), 17=1432(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-460/236, 2-3=-359/208, 3-4=-994/267, 4-5=-2037/373, 5-6=-2079/292, 6-8=-3084/320, 8-9=-3970/380, 9-10=-1440/168, 1-17=-1422/231
 BOT CHORD 16-17=-220/326, 15-16=-28/696, 5-13=-559/149, 12-13=-246/2668, 11-12=-419/4124
 WEBS 1-16=-238/1172, 3-16=-1031/216, 3-15=-132/902, 4-15=-903/149, 13-15=-20/958, 4-13=-198/1645, 6-13=-1144/142, 6-12=0/468, 8-12=-1486/177, 8-11=-1315/181, 9-11=-387/4041

- NOTES-**
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 7-10-4 to 10-6-0, Exterior(2R) 10-6-0 to 13-6-0, Interior(1) 13-6-0 to 18-7-0, Exterior(2R) 18-7-0 to 21-7-0, Interior(1) 21-7-0 to 38-11-4 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
 - TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=107, 17=120.
 - This truss 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.



August 9, 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 Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:03 2021 Page 1
ID:VPVavFnP0P0b1j2tZrIQeazdKbx-qb?GsT5e60sBm57YsG5vovSaSw7bzLbTbcf8omvqUz6

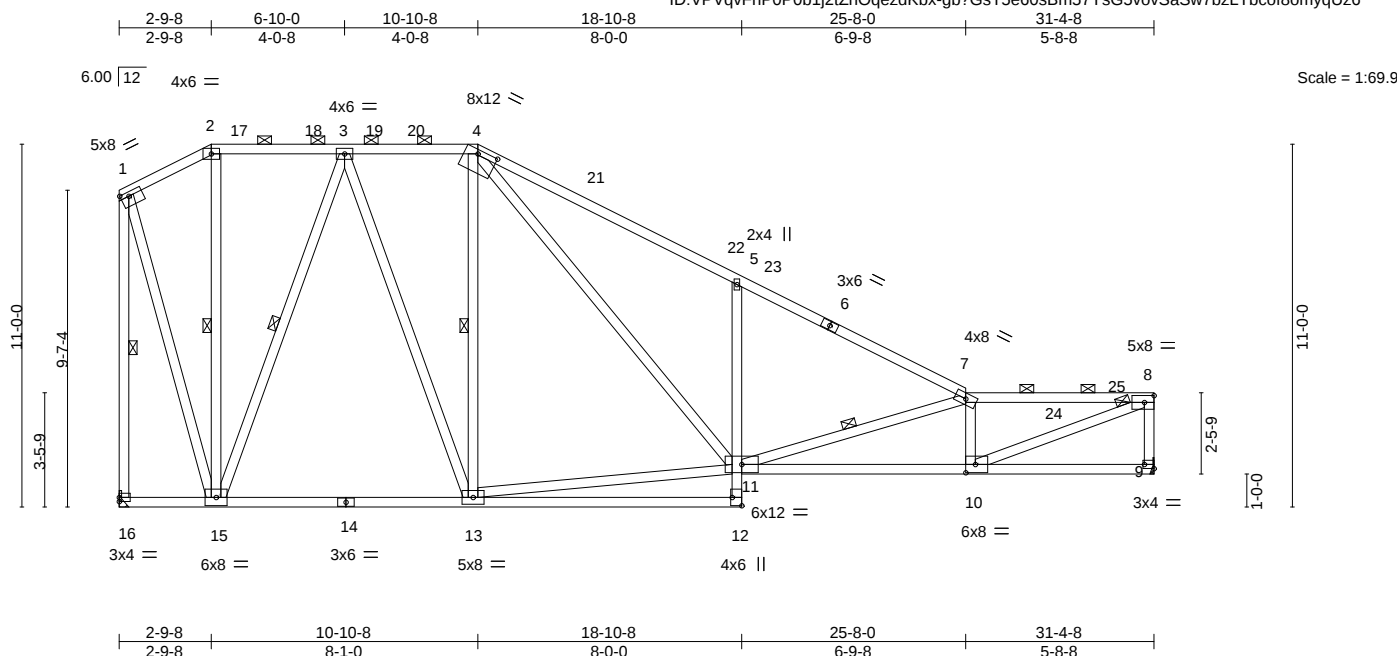


Plate Offsets (X,Y)-- [1:0-3-0,0-1-8], [4:0-7-4,0-1-8], [9:Edge,0-1-8], [10:0-3-8,0-3-0], [12:Edge,0-3-8]													
LOADING (psf)		SPACING		CSI.		DEFL.				PLATES		GRIP	
TCLL	20.0		2-0-0	TC	0.79		in (loc)	l/defl	L/d		MT20		197/144
(Roof Snow=20.0)		Plate Grip DOL	1.15	BC	0.88	Vert(LL)	-0.23 10-11	>999	240				
TCDL	10.0	Lumber DOL	1.15	WB	0.82	Vert(CT)	-0.43 10-11	>866	180				
BCLL	0.0	Rep Stress Incr	YES	Matrix-AS		Horz(CT)	0.08	9	n/a	n/a			
BCDL	10.0	Code	IRC2018/TPI2014									Weight: 193 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 4-6: 2x4 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-3-11 max.): 2-4, 7-8.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 2-15, 3-15, 4-13, 7-11, 1-16

REACTIONS. (size) 9=Mechanical, 16=Mechanical
 Max Horz 16=-337(LC 12)
 Max Uplift 9=-108(LC 14), 16=-119(LC 14)
 Max Grav 9=1414(LC 34), 16=1411(LC 34)

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

TOP CHORD 1-2=-455/235, 2-3=-355/208, 3-4=-990/265, 4-5=-2621/432, 5-7=-2577/301,
7-8=-3151/312, 8-9=-1353/185, 1-16=-1398/229

BOT CHORD 15-16=-233/327, 13-15=-69/685, 5-11=-835/211, 10-11=-358/3223

WEBS 1-15=-241/1154, 3-15=-1002/210, 3-13=-143/938, 4-13=-824/189, 11-13=-87/908,
4-11=-243/1839, 7-11=-1095/126, 7-10=-1125/189, 8-10=-338/3329

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 7-10-4 to 10-6-0, Exterior(2R) 10-6-0 to 13-6-0, Interior(1) 13-6-0 to 18-7-0, Exterior(2R) 18-7-0 to 21-7-0, Interior(1) 21-7-0 to 38-11-4 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=108, 16=119.
- 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.



August 9, 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 MH/473 (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/11 Hawthorn	147354459
2888681	A4A	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:05 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-cz71G97ued6v?PGxzh7NtKYw1jrpRF0t368FteyqUz4

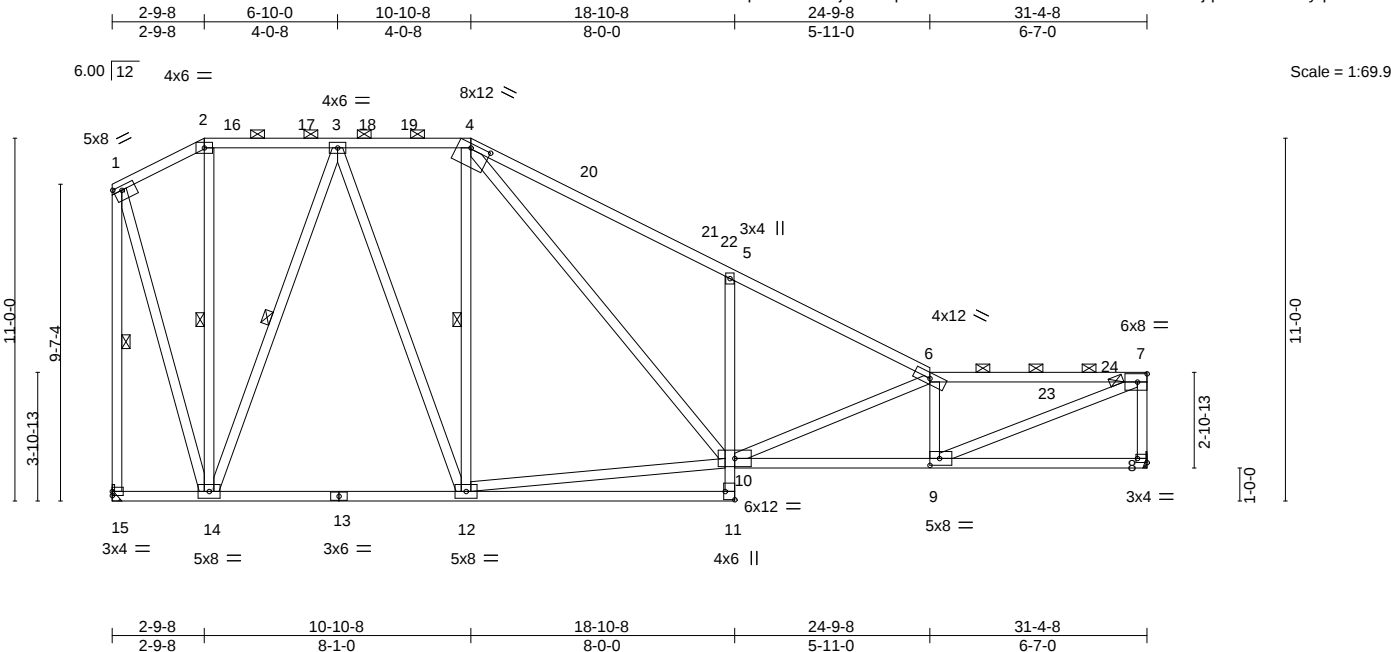


Plate Offsets (X,Y)-- [1:0-3-0,0-1-8], [4:0-7-4,0-1-8], [8:Edge,0-1-8], [9:0-3-8,0-2-8], [11:Edge,0-3-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.21 9-10 >999 240	MT20	197/144
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.37 9-10 >999 180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.07 8 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 194 lb	FT = 20%
BCDL	10.0								

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-6,6-7: 2x4 SPF 1650F 1.5E

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-10-4 max.): 2-4, 6-7.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 2-14, 3-14, 4-12, 1-15

REACTIONS. (size) 8=Mechanical, 15=Mechanical
Max Horz 15=-336(LC 12)
Max Uplift 8=-108(LC 14), 15=-119(LC 14)
Max Grav 8=1365(LC 34), 15=1400(LC 34)

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

TOP CHORD 1-2=-453/234, 2-3=-353/207, 3-4=-979/263, 4-5=-2569/427, 5-6=-2496/299, 6-7=-2883/295, 7-8=-1297/193, 1-15=-1386/227

BOT CHORD 14-15=-238/327, 12-14=-87/679, 5-10=-789/199, 9-10=-346/2940

WEBS 1-14=-241/1143, 3-14=-988/210, 3-12=-144/928, 4-12=-811/191, 10-12=-113/885, 4-10=-239/1785, 6-10=-938/108, 6-9=-1047/187, 7-9=-326/3055

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 7-10-4 to 10-6-0, Exterior(2R) 10-6-0 to 13-6-0, Interior(1) 13-6-0 to 18-7-0, Exterior(2R) 18-7-0 to 21-7-0, Interior(1) 21-7-0 to 38-11-4 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
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=108, 15=119.
- This truss 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.



August 9,2021

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:07 2021 Page 1
ID:VPVayEnP0P0b1i2tZrIQaezdKbx-YMEnha989EMdEiQJ56ArYldKkXYVvBXAXOdLxvaUz2

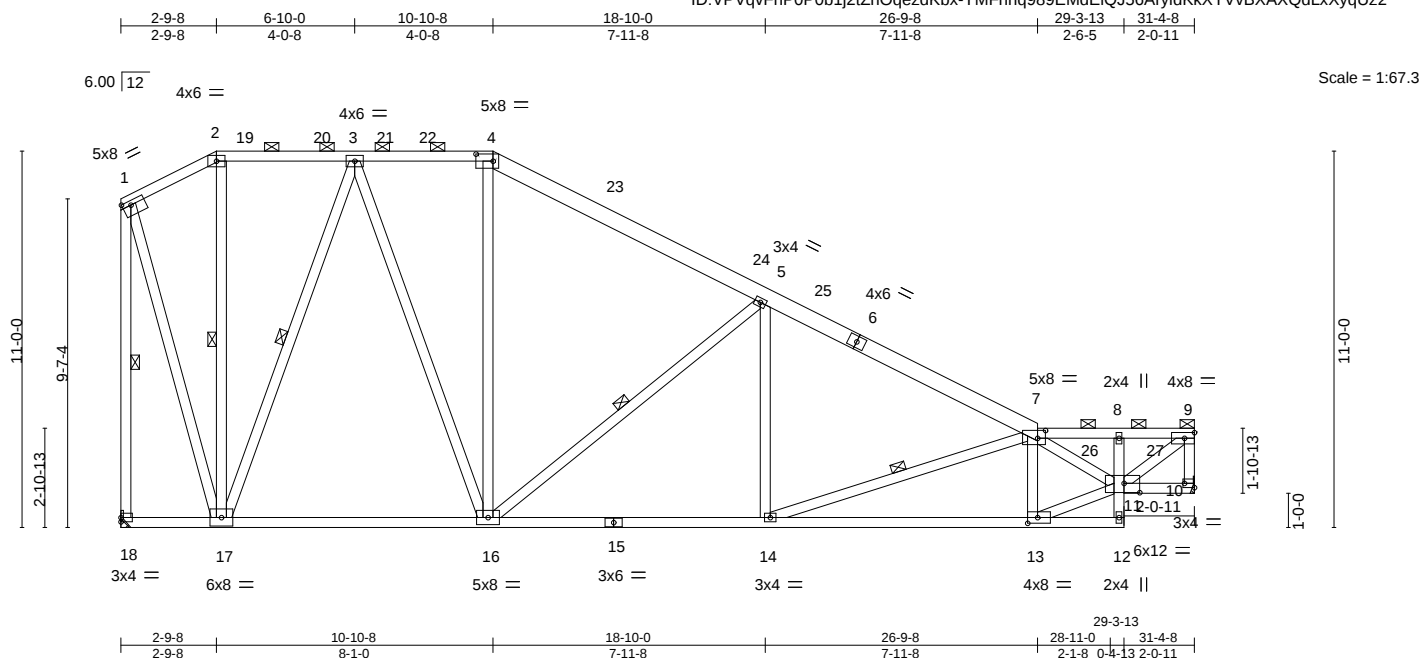


Plate Offsets (X,Y)-- [1:0-3,0-0-1-8], [4:0-6-0,0-2-8], [7:0-2-12,0-2-12], [10:Edge,0-1-8], [11:0-5-8,0-3-4], [13:0-3-8,0-2-0]									
LOADING (psf)		SPACING 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.12 13-14 >999 240	MT20	197/144
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.25 13-14 >999 180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.05 10 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 199 lb	FT = 20%
BCDL	10.0								

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 4-6,6-7: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-3-11 max.): 2-4, 7-9.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 2-17, 3-17, 5-16, 7-14, 1-18

REACTIONS.

(size) 10=Mechanical, 18=Mechanical
 Max Horz 18=-339(LC 12)
 Max Uplift 10=-107(LC 14), 18=-120(LC 14)
 Max Grav 10=1480(LC 34), 18=1424(LC 34)

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

TOP CHORD 1-2=-458/235, 2-3=-358/208, 3-4=-998/267, 4-5=-1338/262, 5-7=-2341/265,
7-8=-1705/169, 8-9=-1728/174, 9-10=-1385/167, 1-18=-1412/231

BOT CHORD 17-18=-226/327, 16-17=-46/692, 14-16=-192/1958, 13-14=-241/2387

WEBS 17-18=240/1165, 3-17=-1018/213, 3-16=-135/918, 5-16=-1240/192, 5-14=0/434,
7-14=-451/88, 7-13=-795/148, 11-13=-235/2427, 7-11=-876/66, 9-11=-228/2112

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 7-10-4 to 10-6-0, Exterior(2R) 10-6-0 to 13-6-0, Interior(1) 13-6-0 to 18-7-0, Exterior(2R) 18-7-0 to 21-7-0, Interior(1) 21-7-0 to 38-11-4 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=107, 18=120.
- 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.



August 9, 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 READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1473 (Rev. 3/29/2020) 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/11 Hawthorn	147354461
2888681	A5A	Piggyback Base	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:09 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-VINX6WAOhsckU0aiCXJCJ2AifpKEAN5MT_k6S0QyqUz0

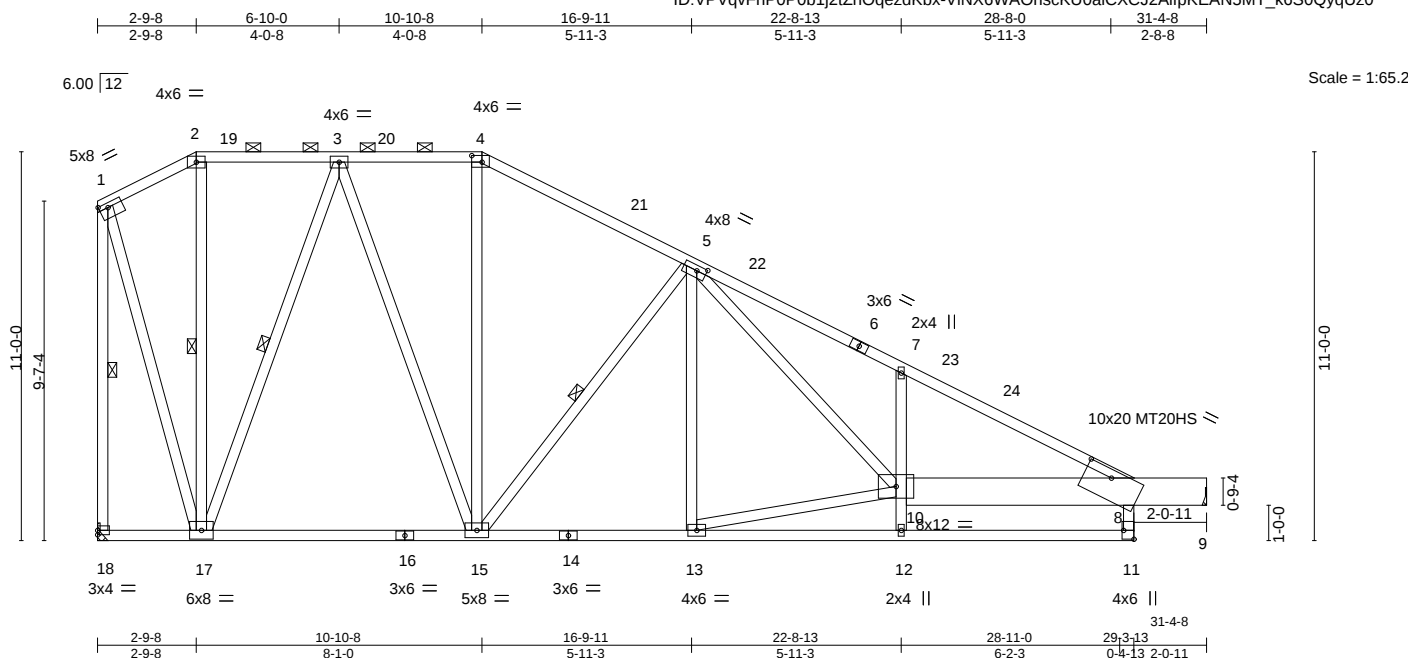


Plate Offsets (X,Y)-- [1:0-3-0,0-1-8], [4:0-3-8,0-2-4], [5:0-3-5,0-1-12], [8:0-9-0,0-2-12], [11:Edge,0-3-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		31-4-8DEFL. in (loc) l/defl L/d			PLATES GRIP	
TCLL 20.0		Plate Grip DOL 1.15		TC 0.61		Vert(LL) -0.23 12-13 >999 240			MT20 197/144	
(Roof Snow=20.0)		Lumber DOL 1.15		BC 0.61		Vert(CT) -0.39 12-13 >971 180			MT20HS 148/108	
TCDL 10.0		Rep Stress Incr YES		WB 0.60		Horz(CT) 0.06 9 n/a n/a				
BCLL 0.0		Code IRC2018/TPI2014		Matrix-AS						
BCDL 10.0									Weight: 215 lb FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
9-10: 2x10 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins (5-8-1 max.): 2-4.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-17, 3-17, 5-15, 1-18

REACTIONS.

(size) 18=Mechanical, 9=Mechanical
Max Horz 18=-343(LC 12)
Max Uplift 18=-118(LC 14), 9=-61(LC 14)
Max Grav 18=1408(LC 32), 9=1408(LC 32)

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

TOP CHORD 1-2=-456/240, 2-3=-357/212, 3-4=-980/279, 4-5=-1247/283, 5-7=-3253/461,
7-8=-3299/366, 1-18=-1400/247
BOT CHORD 17-18=-207/323, 15-17=0/686, 13-15=-92/1634, 8-10=-251/2719
WEBS 1-17=-253/1154, 3-17=-997/229, 3-15=-142/896, 5-15=-1061/173, 7-10=-388/141,
10-13=-92/1490, 5-10=-220/1721

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=39ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 7-10-4 to 10-6-0, Exterior(2R) 10-6-0 to 14-6-8, Interior(1) 14-6-8 to 18-7-0, Exterior(2R) 18-7-0 to 22-5-14, Interior(1) 22-5-14 to 36-10-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 18=118.
- 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.



August 9, 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/11 Hawthorn	147354463
2888681	A7	PIGGYBACK BASE	2	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:12 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-vK2gkYCH_n_vLUJHtfl0foK4YYAPaTjvgiK6ckyqUyz

2-9-8	6-10-0	10-10-8	18-0-0	25-0-0	28-8-8	31-8-0	32-6-8
2-9-8	4-0-8	4-0-8	7-1-8	7-0-0	3-8-8	2-11-8	0-10-8

6.00 | 12 4x6 =

Scale = 1:67.7

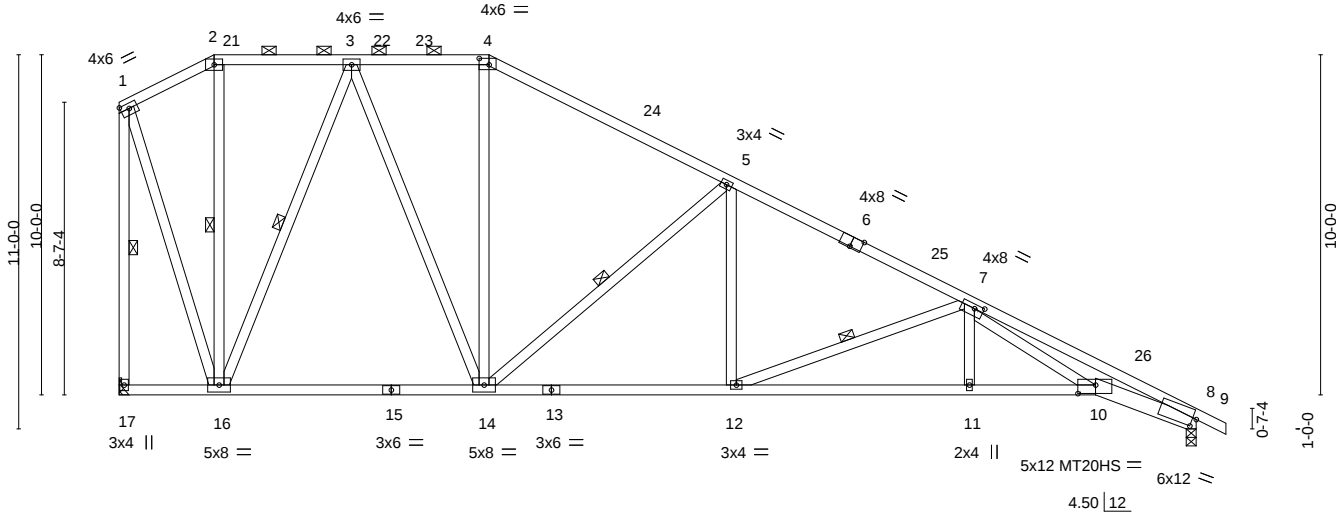


Plate Offsets (X,Y)--	[1:Edge,0-1-12], [4:0-3-8,0-2-4], [6:0-4-0,Edge], [7:0-3-5,0-1-8], [8:0-1-5,0-2-15], [10:0-6-4,0-3-0]
-----------------------	---

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.96	in (loc) l/defl L/d	MT20 197/144	
(Roof Snow=20.0)	Lumber DOL 1.15	BC 0.96	Vert(LL) -0.28 10-11 >999 240	MT20HS 148/108	
TCDL 10.0	Rep Stress Incr YES	WB 0.56	Vert(CT) -0.48 10-11 >787 180		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.20 8 n/a n/a		
BCDL 10.0				Weight: 176 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-2-13 max.): 2-4.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-10: 2x6 SPF 2100F 1.8E, 10-13: 2x4 SPF 1650F 1.5E	2-2-0 oc bracing: 10-11.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 2-16, 3-16, 5-14, 7-12, 1-17

REACTIONS.	(size) 17=Mechanical, 8=0-3-8
	Max Horz 17=-331(LC 12)
	Max Uplift 17=-119(LC 14), 8=-137(LC 14)
	Max Grav 17=1427(LC 33), 8=1555(LC 33)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-475/206, 2-3=-379/188, 3-4=-1106/255, 4-5=-1420/251, 5-7=-2484/281, 7-8=-5323/464, 1-17=-1419/208
BOT CHORD	16-17=-222/342, 14-16=0/756, 12-14=-59/2118, 11-12=-208/3241, 10-11=-208/3243, 8-10=-335/4828
WEBS	1-16=-203/1164, 3-16=-1034/197, 3-14=-118/939, 5-14=-1326/182, 5-12=0/559, 7-12=-1200/159, 7-11=0/299, 7-10=-134/1807

- NOTES-**
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 8-1-12 to 10-9-8, Exterior(2R) 10-9-8 to 14-10-0, Interior(1) 14-10-0 to 18-10-8, Exterior(2R) 18-10-8 to 23-1-7, Interior(1) 23-1-7 to 40-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=119, 8=137.
 - This truss 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.



August 9, 2021

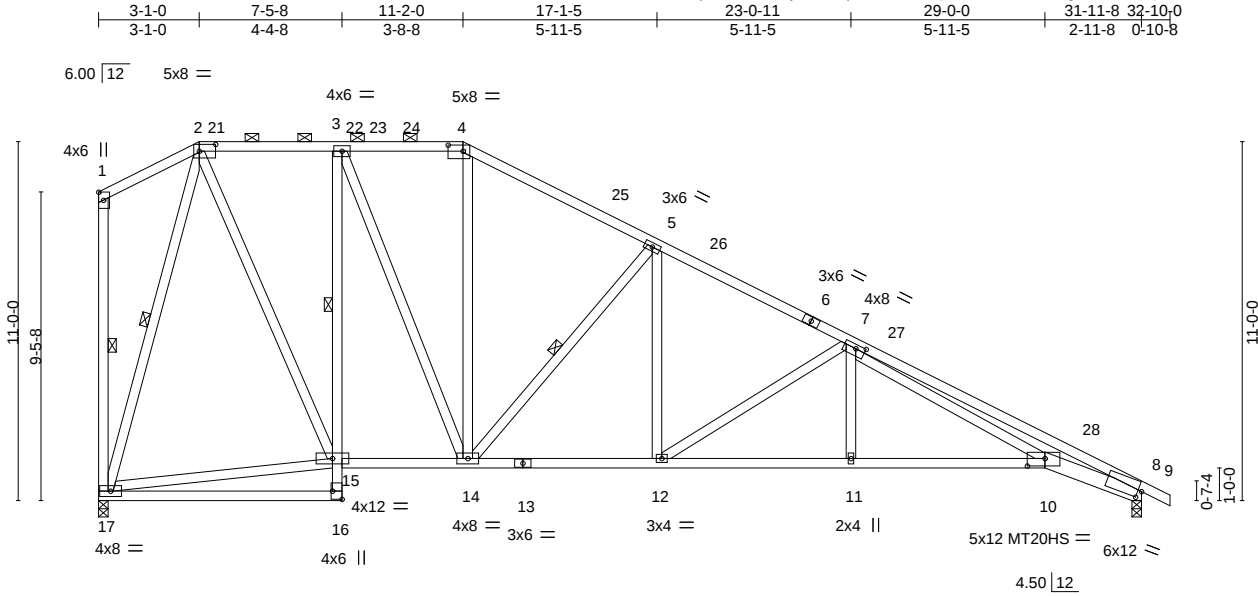
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354464
2888681	A8	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:14 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-riAQ9EEEXWOEdanSg?4oUIDQSSLss2HUC80pDgdyqUyx

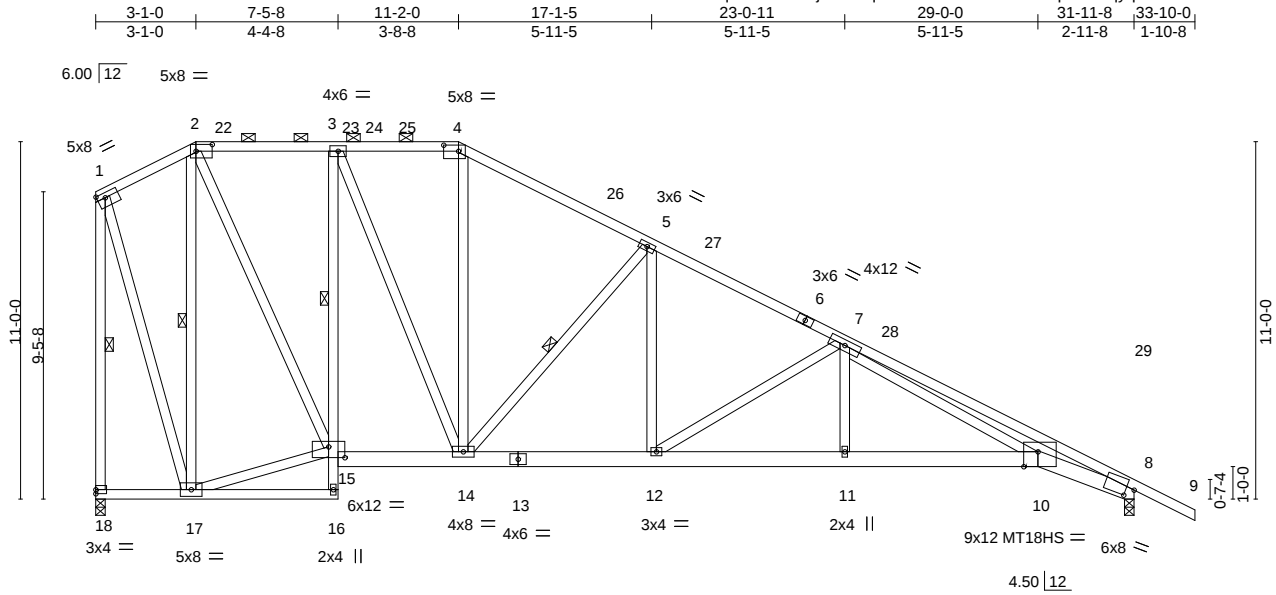


Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354465
2888681	A9	Piggyback Base	2	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:16 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-o5iBavGn2?ULq5c26VqyqeVoE9ccWA4VbIKIWyqUyv



Scale = 1:70.9

	3-1-0	7-5-8	11-2-0	17-1-5	23-0-11	29-0-0	31-11-8
	3-1-0	4-4-8	3-8-8	5-11-5	5-11-5	5-11-5	2-11-8
Plate Offsets (X,Y)--	[1:Edge,0-1-12], [2:0-6-0,0-2-8], [4:0-5-8,0-2-4], [8:0-2-15,0-3-1], [10:0-5-4,Edge], [15:0-6-0,0-4-0]						
LOADING (psf)	SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15		TC 0.85		Vert(LL) -0.30 10-11 >999 240		MT20 197/144
(Roof Snow=20.0)	Lumber DOL 1.15		BC 0.69		Vert(CT) -0.52 10-11 >736 180		MT18HS 197/144
TCDL 10.0	Rep Stress Incr YES		WB 0.98		Horz(CT) 0.20 8 n/a n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 214 lb FT = 20%
BCDL 10.0							

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 6-9: 2x4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-2-3 max.): 2-4.
BOT CHORD 2x4 SPF No.2 *Except* 13-15: 2x6 SPF No.2, 8-10,10-13: 2x6 SPF 2100F 1.8E	BOT CHORD Rigid ceiling directly applied. Except: 1 Row at midpt 3-15
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 2-17, 5-14, 1-18

REACTIONS. (size) 18=0-3-8, 8=0-3-8
Max Horz 18=-361(LC 12)
Max Uplift 18=-121(LC 14), 8=-168(LC 14)
Max Grav 18=1447(LC 33), 8=1631(LC 33)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-464/231, 2-3=-839/231, 3-4=-1157/255, 4-5=-1448/255, 5-7=-2317/270,
7-8=-4717/323, 1-18=-1416/228
BOT CHORD 17-18=-234/355, 3-15=-847/211, 14-15=0/859, 12-14=0/1952, 11-12=-112/2958,
10-11=-112/2960, 8-10=-154/4180
WEBS 2-17=-1133/201, 15-17=-87/435, 2-15=-97/1175, 3-14=-153/824, 4-14=-16/272,
5-14=-1203/164, 5-12=-21/666, 7-12=-1183/136, 7-11=0/428, 1-17=-219/1151,
7-10=-80/1377

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-0, Exterior(2R) 3-1-0 to 7-3-12, Interior(1) 7-3-12 to 11-2-0, Exterior(2R) 11-2-0 to 15-4-15, Interior(1) 15-4-15 to 33-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=121, 8=168.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 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

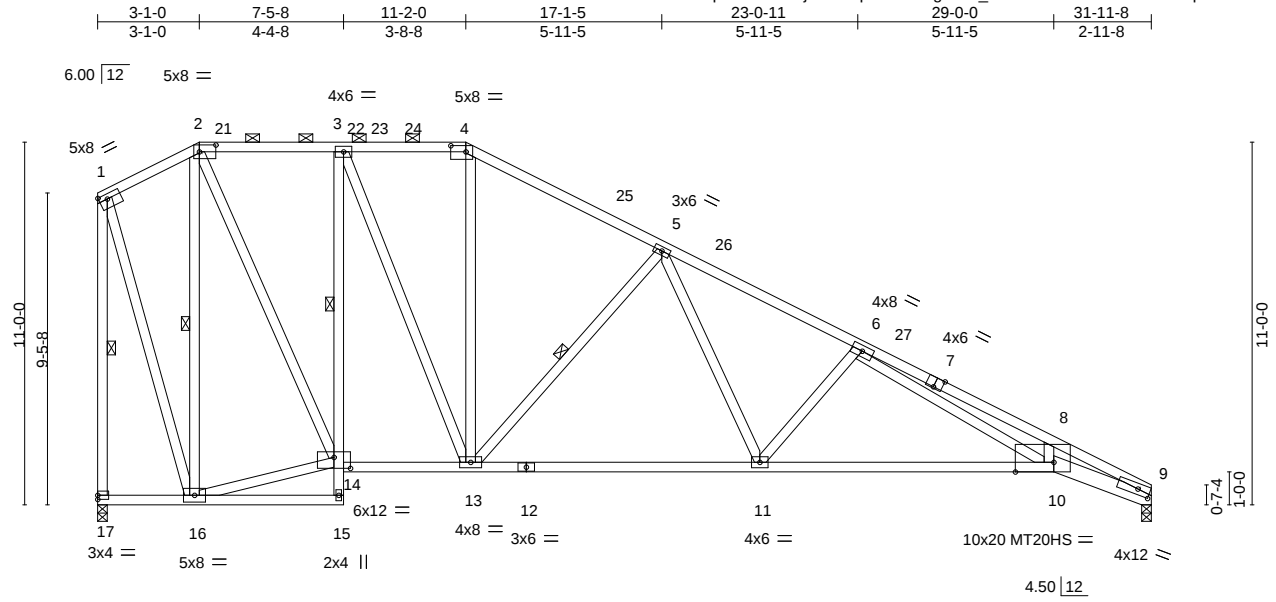
Job 2888681	Truss A10	Truss Type Piggyback Base	Qty 7	Ply 1	Summit/11 Hawthorn 147354466
----------------	--------------	------------------------------	----------	----------	---------------------------------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:58:53 2021 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-zgPUI2_MTxbcZZMdGawZOo2r4ukpdsW6JfEcSLyqUzG



	3-1-0	7-5-8	11-2-0	20-1-0		29-0-0		31-11-8
	3-1-0	4-4-8	3-8-8	8-11-0		8-11-0		2-11-8
Plate Offsets (X,Y)--	[1:Edge,0-1-12], [2:0-6-0,0-2-8], [4:0-5-8,0-2-4], [7:0-3-0,Edge], [9:0-4-8,0-2-0], [10:1-2-0,Edge], [14:0-6-0,0-4-0]							
LOADING (psf)	SPACING- 2-0-0		CSI.		DEFL. in (loc) l/def L/d		PLATES GRIP	
TCLL 20.0	Plate Grip DOL 1.15		TC 0.92		Vert(LL) -0.39 10-11 >970 240		MT20 197/144	
(Roof Snow=20.0)	Lumber DOL 1.15		BC 0.78		Vert(CT) -0.78 10-11 >488 180		MT20HS 148/108	
TCDL 10.0	Rep Stress Incr YES		WB 0.59		Horz(CT) 0.23 9 n/a n/a			
BCLL 0.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 193 lb FT = 20%	
BCDL 10.0								

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
7-9: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2 *Except*
9-10: 2x6 SPF 2100F 1.8E, 10-12: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-2-5 max.): 2-4.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 3-14
WEBS 1 Row at midpt 2-16, 5-13, 1-17

REACTIONS.

(size) 17=0-3-8, 9=0-3-8
Max Horz 17=-347(LC 12)
Max Uplift 17=-123(LC 14), 9=-110(LC 14)
Max Grav 17=1450(LC 32), 9=1515(LC 32)

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

TOP CHORD 1-2=-465/232, 2-3=-827/242, 3-4=-1153/263, 4-5=-1444/266, 5-6=-2729/323,
6-8=-5378/600, 8-9=-5523/511, 1-17=-1419/232
BOT CHORD 16-17=-218/333, 3-14=-871/202, 13-14=0/833, 11-13=-71/1941, 10-11=-203/2834,
9-10=-428/4985
WEBS 2-16=-1124/219, 14-16=-72/423, 2-14=-116/1162, 3-13=-143/849, 4-13=-22/271,
5-13=-1202/182, 5-11=-59/929, 6-11=-806/169, 6-10=-272/2325, 1-16=-220/1155

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-0, Exterior(2R) 3-1-0 to 7-3-12, Interior(1) 7-3-12 to 11-2-0, Exterior(2R) 11-2-0 to 15-4-15, Interior(1) 15-4-15 to 31-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) 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) 9 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 100 lb uplift at joint(s) except (jt=lb) 17=123, 9=110.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 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

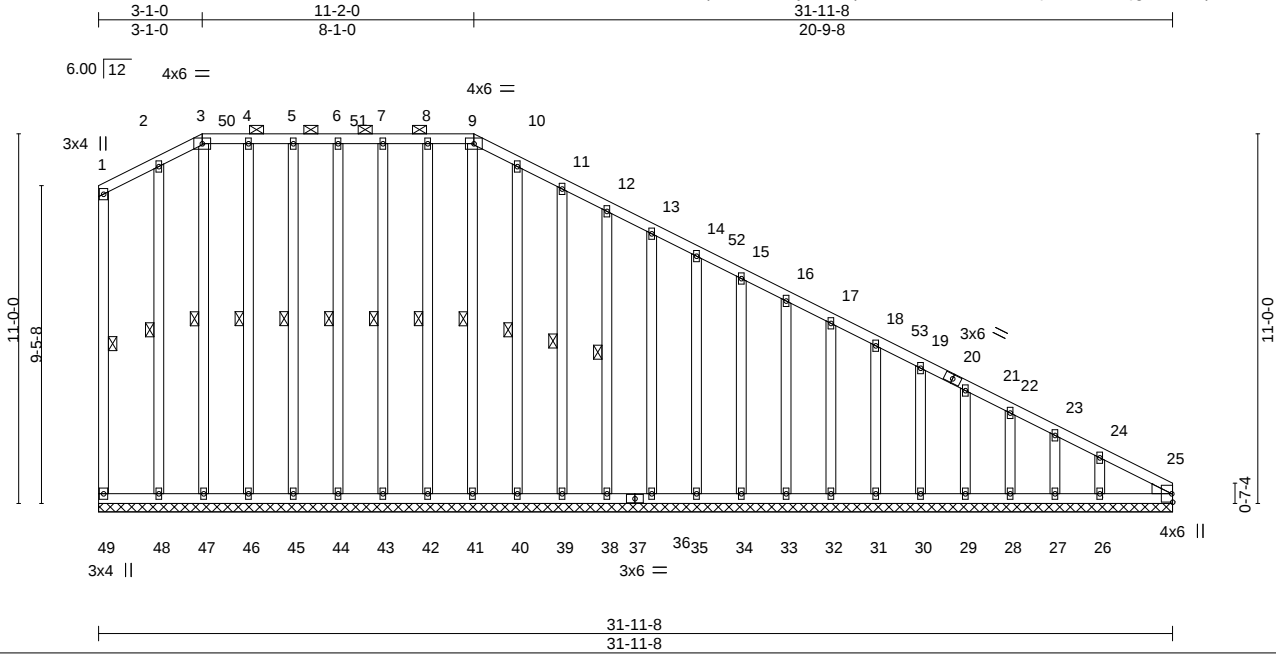


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	A11	GABLE	1	1	147354467

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:58:56 2021 Page 1
ID:VPVqVFnP0P0b1j2tZrOqezdKbx-NF4dN40FlszAQ04CxITG0QgV45uWqK4Z?DSG3gyqUzD



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.36	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr NO	WB 0.15	Horz(CT)	0.01	25	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 269 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-9.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 46-47,45-46,44-45,43-44,42-43,41-42.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 1-49, 9-41, 8-42, 7-43, 6-44, 5-45, 4-46, 3-47, 2-48, 10-40, 11-39, 12-38
OTHERS 2x4 SPF No.2	
WEDGE	
Right: 2x4 SPF No.2	

REACTIONS.	
All bearings 31-11-8.	
(lb) - Max Horz 49=350(LC 8)	
Max Uplift All uplift 100 lb or less at joint(s) 49, 41, 42, 43, 44, 45, 46, 47, 48, 40, 39, 38, 36, 35, 25, 34, 33, 32, 31, 30, 29, 28, 27, 26	
Max Grav All reactions 250 lb or less at joint(s) 49, 41, 42, 43, 44, 45, 46, 47, 48, 40, 39, 38, 36, 35, 25, 34, 33, 32, 31, 30, 29, 28, 27, 26	

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 23-24=-259/150, 24-25=-304/181	
BOT CHORD 48-49=-147/264, 47-48=-147/264, 46-47=-148/264, 45-46=-148/264, 44-45=-148/264, 43-44=-148/264, 42-43=-148/264, 41-42=-148/264, 40-41=-147/264, 39-40=-147/264, 38-39=-147/264, 36-38=-147/264, 35-36=-147/264, 34-35=-147/264, 33-34=-147/264, 32-33=-147/264, 31-32=-147/264, 30-31=-147/264, 29-30=-147/264, 28-29=-147/264, 27-28=-147/264, 26-27=-147/264, 25-26=-147/264	

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 3) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) Provide adequate drainage to prevent water ponding.
 - 6) All plates are 2x4 MT20 unless otherwise indicated.
 - 7) Gable requires continuous bottom chord bearing.
 - 8) Gable studs spaced at 1-4-0 oc.
 - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 49, 41, 42, 43, 44, 45, 46, 47, 48, 40, 39, 38, 36, 35, 25, 34, 33, 32, 31, 30, 29, 28, 27, 26.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2888681	Truss B1	Truss Type GABLE	Qty 1	Ply 1	Summit/11 Hawthorn 147354468
----------------	-------------	---------------------	----------	----------	---------------------------------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:18 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-kUPx?bH2adl33PmREwsRv3aLDySG_IKo3enRpOyqUyt

0-10-8 10-6-0 20-11-8
0-10-8 10-6-0 10-5-8

4x6 =

Scale = 1:43.9

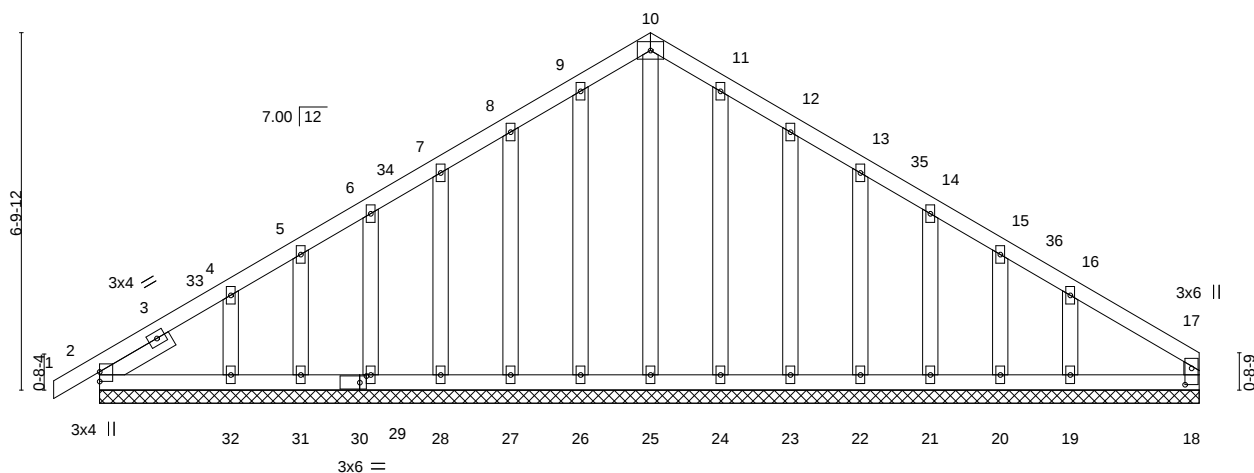


Plate Offsets (X, Y)-- [17:0-3-12,0-1-8], [30:0-1-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) 0.00	1	n/r	120	MT20	197/144
(Roof Snow=20.0)	Lumber DOL 1.15	BC 0.04	Vert(CT) 0.00	1	n/r	120		
TCDL 10.0	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.00	18	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-S						
BCDL 10.0							Weight: 111 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
SLIDER Left 2x4 SPF No.2 1-6-9

BRACING-

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

REACTIONS.

All bearings 20-11-8.
(lb) - Max Horz 2=139(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 26, 27, 28, 29, 31, 32, 24, 23, 22, 21, 20, 19
Max Grav All reactions 250 lb or less at joint(s) 18, 2, 25, 26, 27, 28, 29, 31, 32, 24, 23, 22, 21, 20, 19

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 10-6-0, Corner(3R) 10-6-0 to 13-6-0, Exterior(2N) 13-6-0 to 20-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 1-4-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 26, 27, 28, 29, 31, 32, 24, 23, 22, 21, 20, 19.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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 2888681	Truss B2	Truss Type Common	Qty 1	Ply 1	Summit/11 Hawthorn	147354469
----------------	-------------	----------------------	----------	----------	--------------------	-----------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:19 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-CgzJCxigLwtwhYLdodNgRH7PZMi3jIMxHIX_MryqUys

Job Reference (optional)

5-4-12	10-6-0	15-7-4	21-0-0
5-4-12	5-1-4	5-1-4	5-4-12

4x6 ||

Scale = 1:40.7

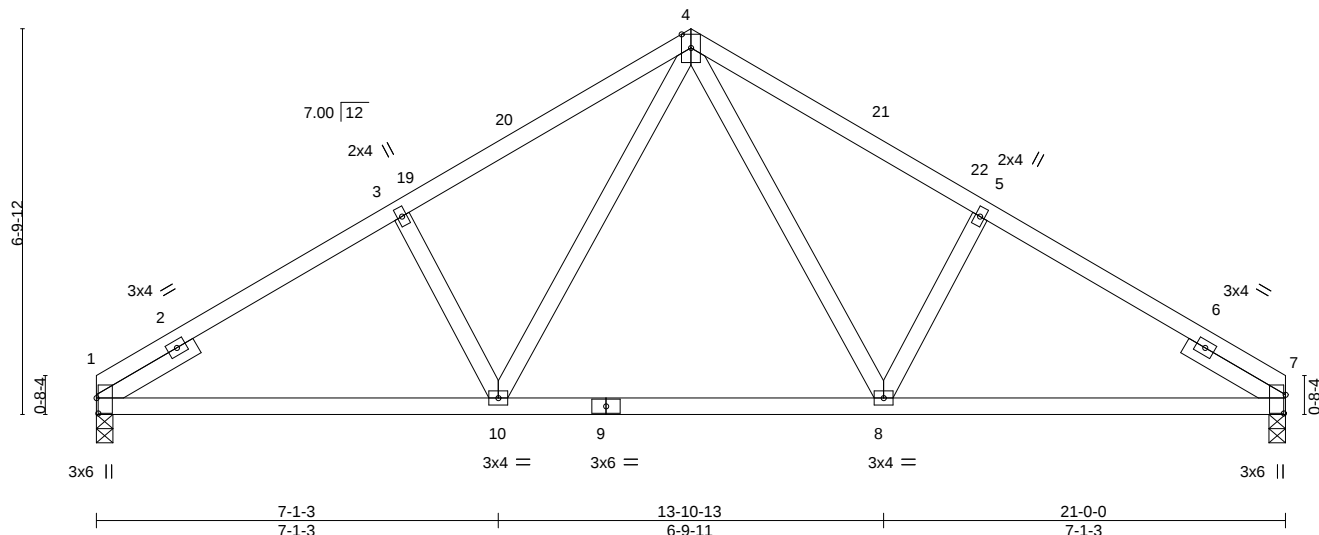


Plate Offsets (X,Y)-- [1:0-3-4,0-0-6], [7:0-3-15,0-0-6]										
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP
TCLL	20.0		2-0-0	TC	0.40	in (loc)	l/defl	L/d	MT20	197/144
(Roof Snow=20.0)		Plate Grip DOL	1.15	BC	0.38	Vert(LL)	-0.05 8-10	>999 240		
TCDL	10.0	Lumber DOL	1.15	WB	0.12	Vert(CT)	-0.11 8-10	>999 180		
BCLL	0.0	Rep Stress Incr	YES	Matrix-AS		Horz(CT)	0.03 7	n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014							Weight: 81 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 7=0-3-8
Max Horz 1=-123(LC 12)
Max Uplift 1=-77(LC 14), 7=-77(LC 14)
Max Grav 1=871(LC 18), 7=871(LC 19)

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

TOP CHORD 1-3=-1157/178, 3-4=-1162/216, 4-5=-1162/216, 5-7=-1157/178
BOT CHORD 1-10=-101/1048, 8-10=-14/688, 7-8=-93/1048
WEBS 4-8=-64/476, 5-8=-329/127, 4-10=-64/476, 3-10=-329/126

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-6-0, Exterior(2R) 10-6-0 to 13-6-0, Interior(1) 13-6-0 to 21-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



August 9, 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 2888681	Truss B3	Truss Type Common	Qty 10	Ply 1	Summit/11 Hawthorn 147354470
----------------	-------------	----------------------	-----------	----------	---------------------------------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:20 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-gsXiQHJl6E?miwplKvUfaJm1ISCc5WyGXuHyqUyr

Job Reference (optional)

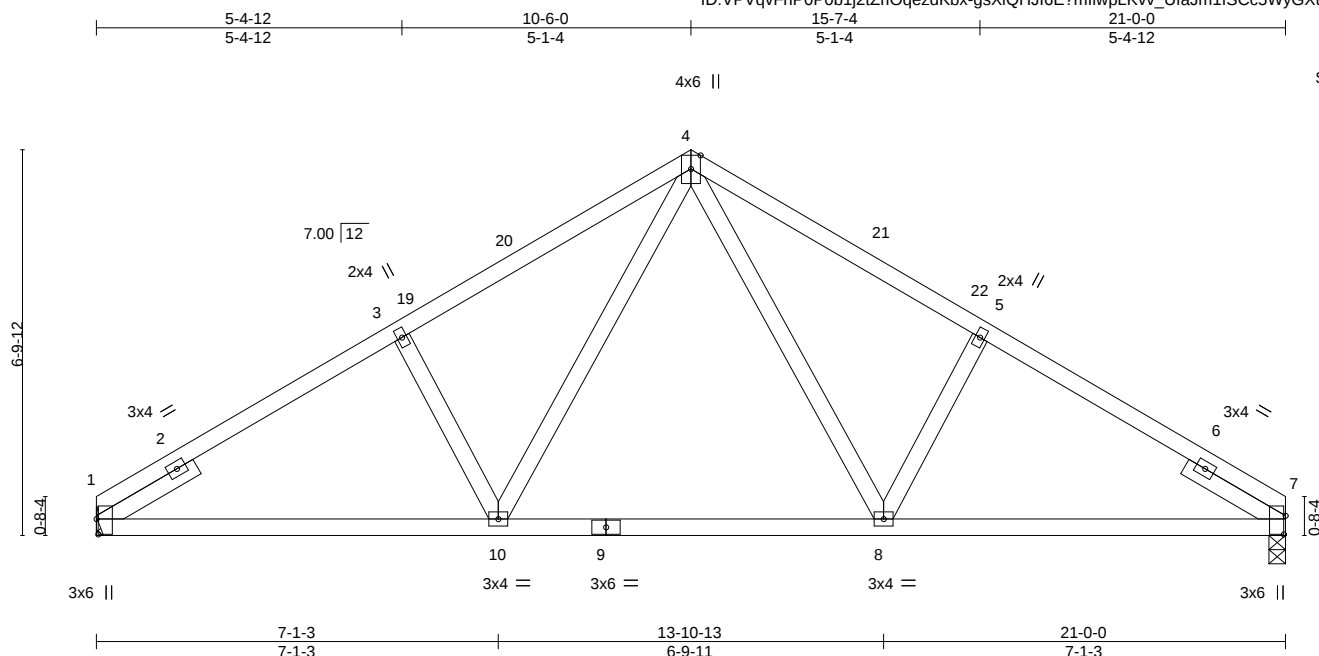


Plate Offsets (X,Y)-- [1:0-3-4,0-0-6], [7:0-3-15,0-0-6]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP	
TCLL 20.0		Plate Grip DOL 1.15		TC 0.40		Vert(LL) -0.05 8-10 >999 240			MT20 197/144	
(Roof Snow=20.0)		Lumber DOL 1.15		BC 0.38		Vert(CT) -0.11 8-10 >999 180				
TCDL 10.0		Rep Stress Incr YES		WB 0.12		Horz(CT) 0.03 7 n/a n/a				
BCLL 0.0		Code IRC2018/TPI2014		Matrix-AS					Weight: 81 lb FT = 20%	
BCDL 10.0										

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=Mechanical, 7=0-3-8
Max Horz 1=-123(LC 12)
Max Uplift 1=-77(LC 14), 7=-77(LC 14)
Max Grav 1=871(LC 18), 7=871(LC 19)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1157/178, 3-4=-1162/216, 4-5=-1162/216, 5-7=-1157/178
BOT CHORD 1-10=-101/1048, 8-10=-14/688, 7-8=-93/1048
WEBS 4-8=-64/476, 5-8=-329/127, 4-10=-64/476, 3-10=-329/126

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-6-0, Exterior(2R) 10-6-0 to 13-6-0, Interior(1) 13-6-0 to 21-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to bearing connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.
- 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.



August 9, 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

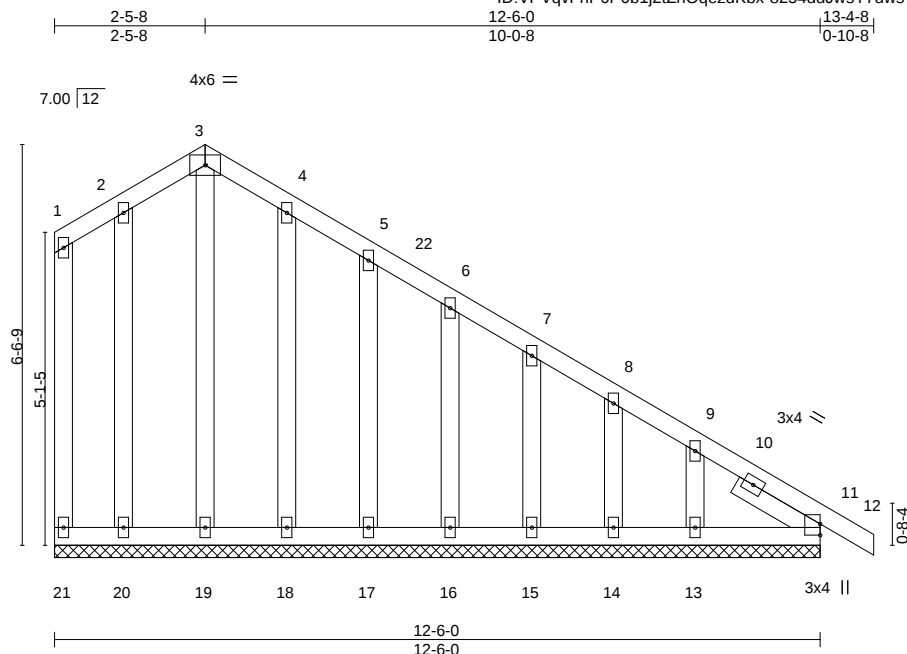
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:21 2021 Page 1
ID:VPVavFnP0P0b1i2ZrIQaeZKpx-8254ddJwsY7dwsV0v2O8XiCp ASBBfEdlc05OivaUva

[illegible]

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		
OTHERS	2x4 SPF No.2		
SLIDER	Right 2x4 SPF No.2 1-6-9		

REACTIONS. All bearings 12-6-0.
(lb) - Max Horz 21=199(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 21, 11, 19, 20, 18, 17, 16, 15, 14, 13
Max Grav All reactions 250 lb or less at joint(s) 21, 11, 19, 20, 18, 17, 16, 15, 14, 13

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

TOP CHORD	9-11=-294/210
BOT CHORD	20-21=-183/274, 19-20=-183/274, 18-19=-183/274, 17-18=-183/274, 16-17=-183/274, 15-16=-183/274, 14-15=-183/274, 13-14=-183/274, 11-13=-183/274

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-1-12 to 2-5-8, Corner(3R) 2-5-8 to 5-5-8, Exterior(2N) 5-5-8 to 13-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) T CLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 1'-4" oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21, 11, 19, 20, 18, 17, 16, 15, 14, 13.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) 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

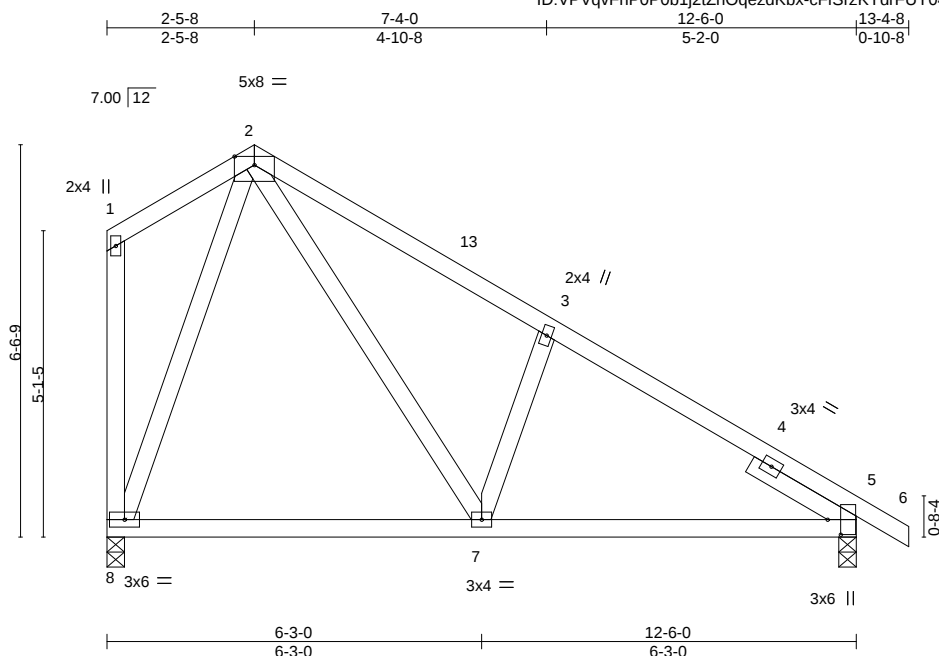
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	C2	Common	2	1	147354472

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:22 2021 Page 1

ID:VPVqvFnP0P0b1j2Zr1OqezdKbx-cFfSrzKYdrFUY04CTlxN3vlz9al_w2fO_Gley9yqUyp



Scale = 1:38.4

Plate Offsets (X,Y)-- [5:0-3-0,0-2-10]

LOADING (psf)	SPACING	CSI	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL)	-0.03	7-8	>999	240	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.31	Vert(CT)	-0.07	7-8	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.34	Horz(CT)	0.00	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS							
BCDL 10.0	Code IRC2018/TPI2014								

Weight: 59 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 8=0-3-8
Max Horz 8=-201(LC 12)
Max Uplift 5=-68(LC 14), 8=-49(LC 14)
Max Grav 5=568(LC 20), 8=492(LC 1)

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

TOP CHORD 2-3=-578/217, 3-5=-532/152
BOT CHORD 5-7=-34/513
WEBS 2-7=-144/486, 3-7=-299/183, 2-8=-455/210

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-5-8, Exterior(2R) 2-5-8 to 5-5-8, Interior(1) 5-5-8 to 13-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 8.
- 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.



August 9, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

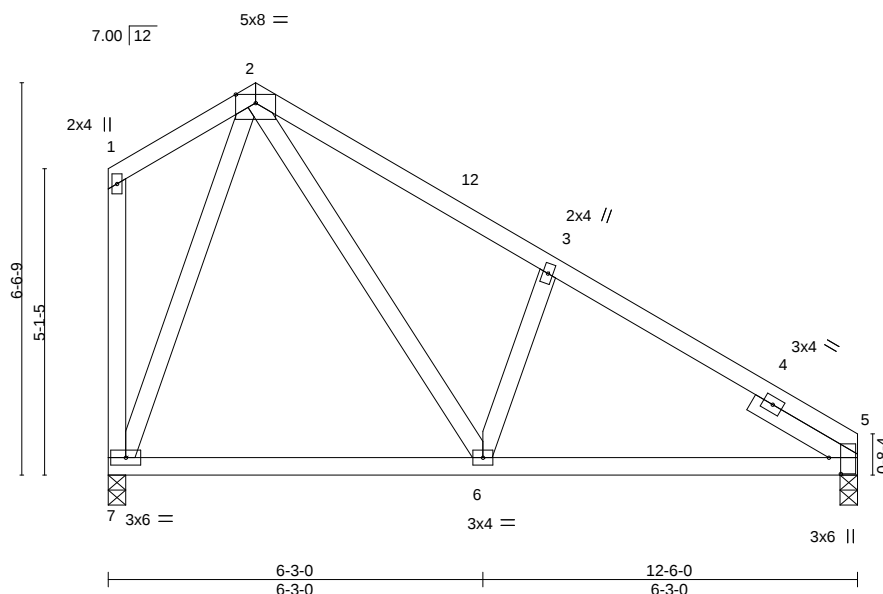
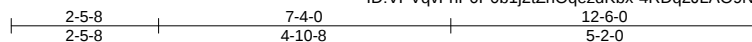
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	C3	Common	5	1	147354473

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:23 2021 Page 1

ID:VPVqVFnP0P0b1j2tZrIQeqzdKbx-4RDq2JLAO9NL9AeO1TSc7H8tz5BfUuXCvVCVcyqUyo



Scale = 1:38.4

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL) -0.03	6-7	>999	240	MT20	197/144
(Roof Snow=20.0)	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.07	6-7	>999	180		
TCDL 10.0	Rep Stress Incr YES	WB 0.34	Horz(CT) 0.00	5	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS						
BCDL 10.0							Weight: 58 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 7=0-3-8
 Max Horz 7=-194(LC 12)
 Max Uplift 5=-40(LC 14), 7=-50(LC 14)
 Max Grav 5=514(LC 19), 7=494(LC 1)

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

TOP CHORD 2-3=-583/220, 3-5=-536/154
 BOT CHORD 5-6=-65/518
 WEBS 2-6=-147/492, 3-6=-303/184, 2-7=-457/210

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-5-8, Exterior(2R) 2-5-8 to 5-5-8, Interior(1) 5-5-8 to 12-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



August 9, 2021

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

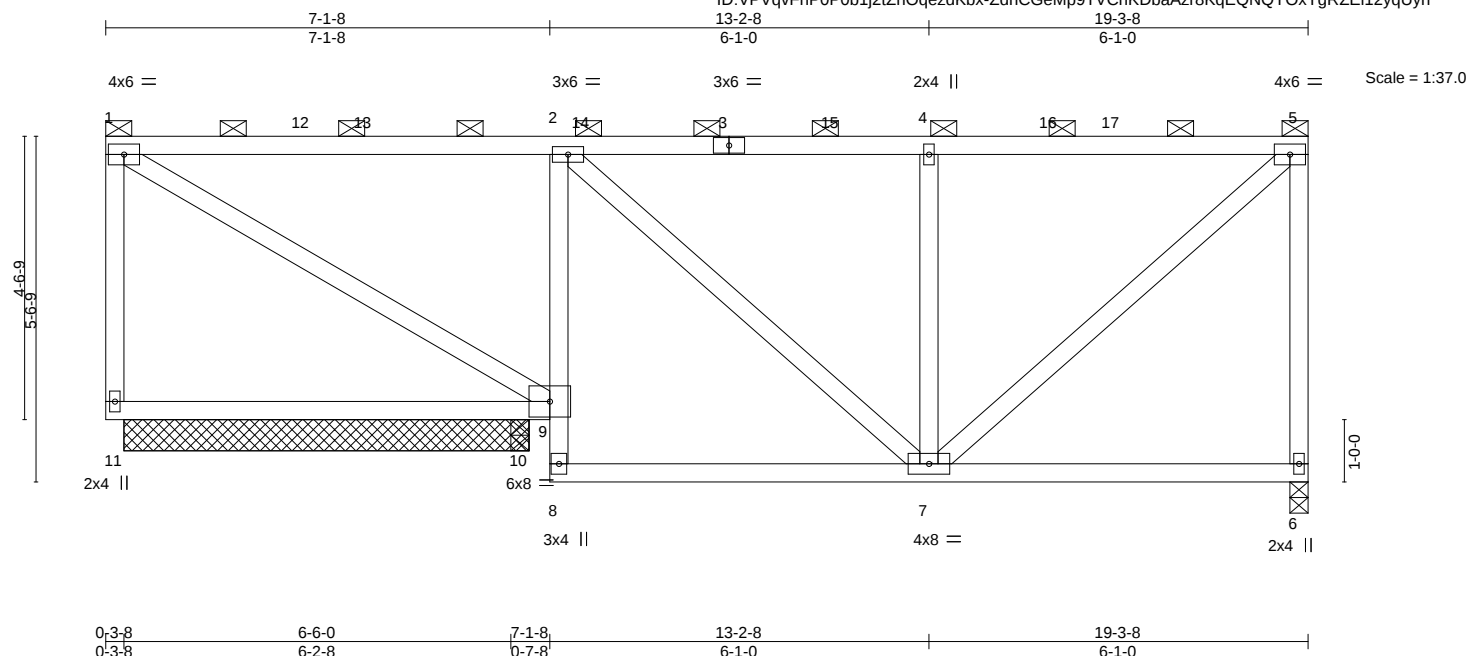
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.52	Vert(LL) -0.04 10-11 >999 240	MT20	197/144
(Roof Snow=20.0)	Lumber DOL 1.15	BC 0.36	Vert(CT) -0.07 10-11 >999 180		
TCDL 10.0	Rep Stress Incr YES	WB 0.38	Horz(CT) -0.01 6 n/a n/a		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 92 lb	FT = 20%
BCDL 10.0					

LUMBER-

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

BRACING-

TOP CHORD	2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS.

(size) 11=6-6-0, 6=0-3-8, 10=0-3-8
 Max Horz 11=163(LC 11)
 Max Uplift 11=-111(LC 8), 6=-70(LC 12), 10=-72(LC 9)
 Max Grav 11=360(LC 1), 6=552(LC 1), 10=607(LC 1)

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

TOP CHORD 1-11=-310/323, 1-2=-259/256, 2-4=-408/293, 4-5=-408/293, 5-6=-496/319
BOT CHORD 2-9=-576/355
WEBS 1-9=-319/276, 4-7=-367/284, 5-7=-263/507

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 16-1-12, Corner(3) 16-1-12 to 19-1-12 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) TLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) 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) 6, 10 except (jt=lb) 11=111.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021



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

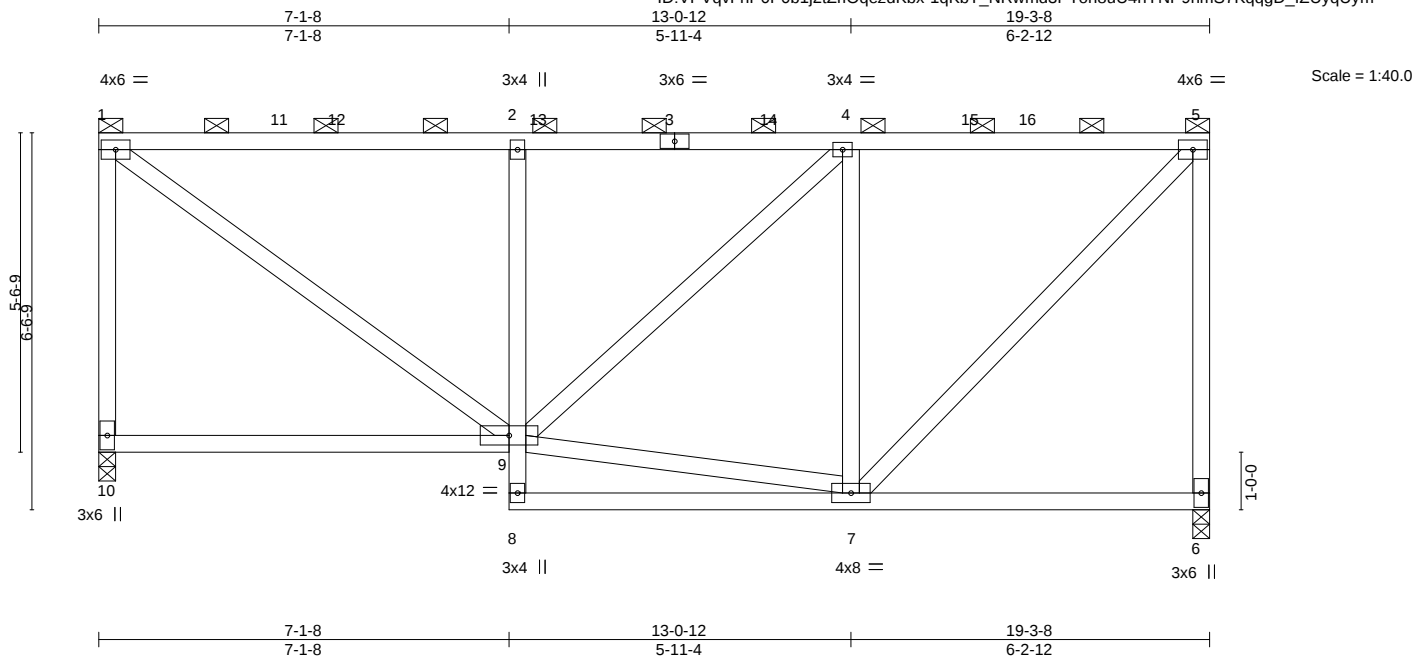
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354475
2888681	C5	ROOF SPECIAL	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:25 2021 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-1qKbT_NRWmd3PTon8uU4hYNP9nmS7KqggD_IzUyqUym



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15	TC 0.52	Vert(LL)	-0.08 9-10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(CT)	-0.16 9-10	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.63	Horz(CT)	-0.01 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 104 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 10=0-3-8, 6=0-3-8
Max Horz 6=195(LC 11)
Max Uplift 10=-110(LC 8), 6=-110(LC 9)
Max Grav 10=760(LC 1), 6=760(LC 1)

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

TOP CHORD 1-10=-687/435, 1-2=-705/345, 2-4=-682/332, 4-5=-535/292, 5-6=-704/426
BOT CHORD 2-9=-410/315
WEBS 1-9=-467/832, 7-9=-335/514, 4-7=-499/369, 5-7=-405/748

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 16-1-12, Corner(3) 16-1-12 to 19-1-12 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) 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) 10=110, 6=110.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 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



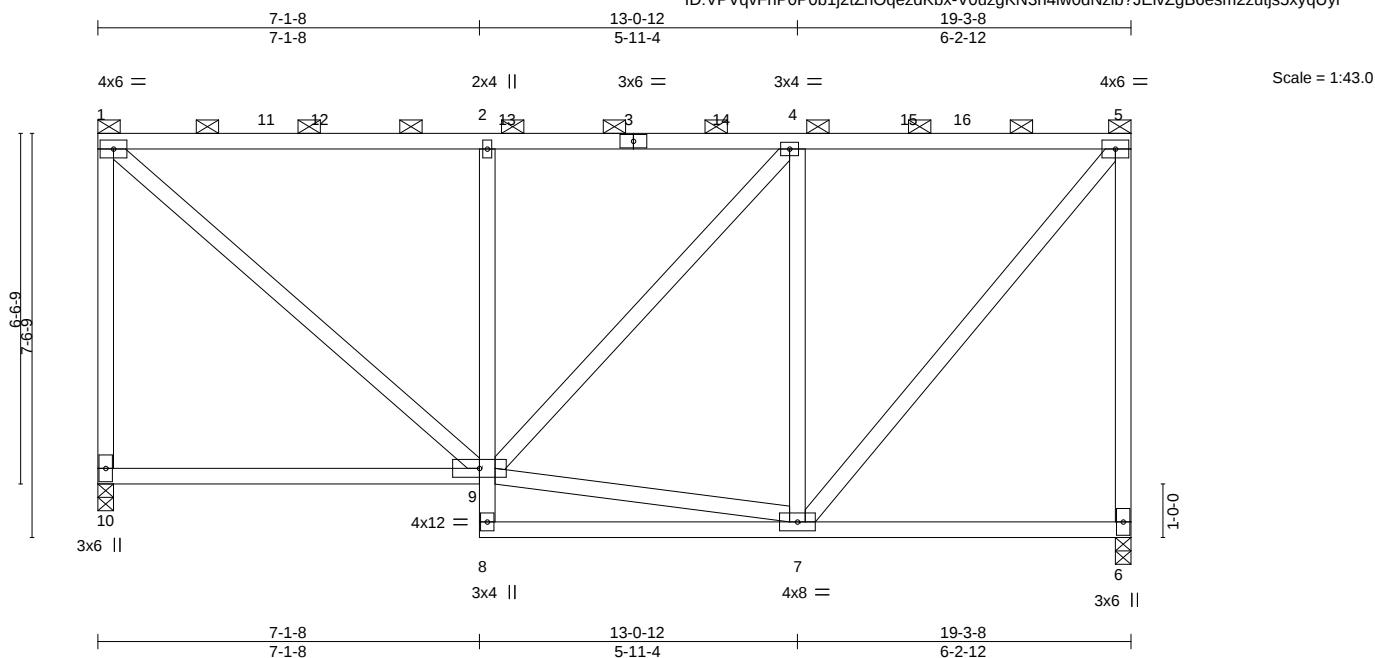
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2888681	Truss C6	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Summit/11 Hawthorn Job Reference (optional)	I47354476
----------------	-------------	----------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:26 2021 Page 1
ID:VPVqvFnPOP0b1j2tZrIQeqzdKbx-V0uzgKN3h4lw0dNzib?JEIvZgB6esm2zutjs5xyqUyl



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15	TC 0.60	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(LL) -0.08 9-10 >999 240		
BCLL 0.0	Rep Stress Incr YES	WB 0.70	Vert(CT) -0.16 9-10 >999 180		
BCDL 10.0	Code IRC2018/TP12014	Matrix-AS	Horz(CT) -0.01 10 n/a n/a		
				Weight: 111 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 10=0-3-8, 6=0-3-8
Max Horz 6=228(LC 11)
Max Uplift 10=-121(LC 8), 6=-121(LC 9)
Max Grav 10=760(LC 1), 6=760(LC 1)

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

TOP CHORD 1-10=-688/451, 1-2=-593/294, 2-4=-576/285, 4-5=-462/267, 5-6=-705/441
BOT CHORD 2-9=-413/320, 6-7=-249/257
WEBS 1-9=-449/751, 7-9=-328/468, 4-7=-488/381, 5-7=-403/702

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 16-1-12, Corner(3) 16-1-12 to 19-1-12 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) 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) 10=121, 6=121.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 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

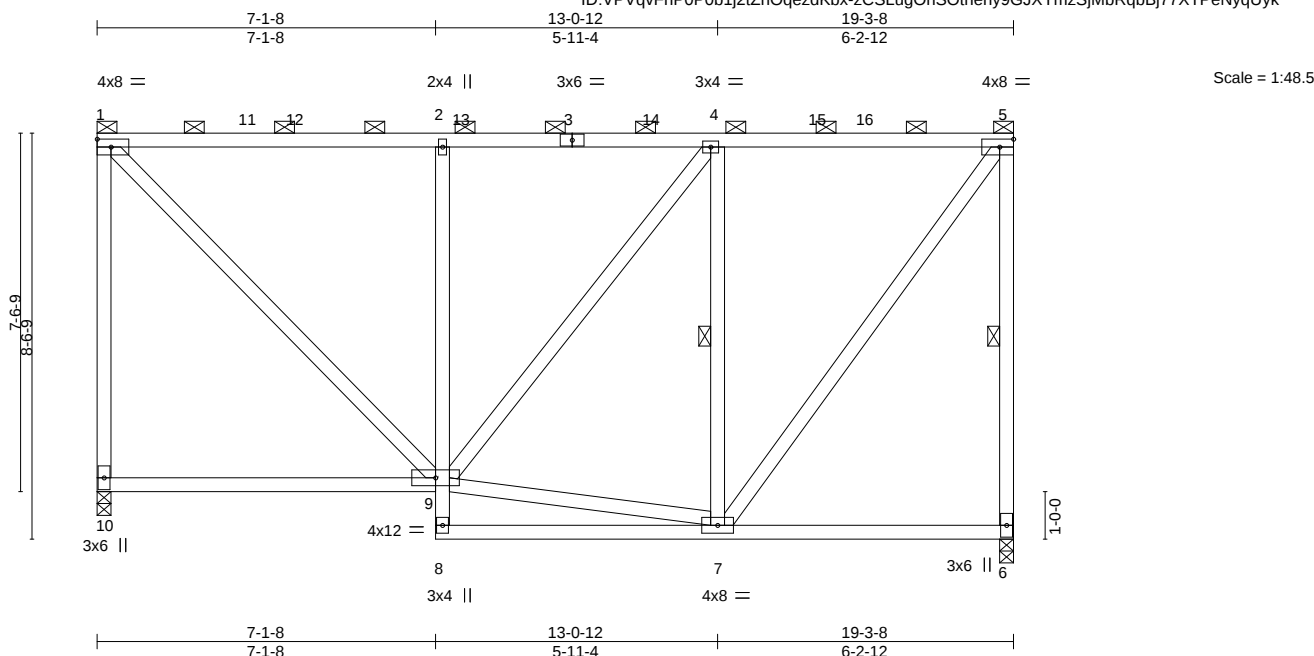
Job 2888681	Truss C7	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Summit/11 Hawthorn Job Reference (optional)	147354477
----------------	-------------	----------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:27 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-zCSLugOhSOtneny9GJXYmzSjMbRqbBj77XTPeNyqUyk



LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15	TC 0.67	Vert(LL)	-0.08 9-10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.33	Vert(CT)	-0.16 9-10	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.80	Horz(CT)	-0.01 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TP12014	Matrix-AS					Weight: 118 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-6, 4-7

REACTIONS.

(size) 10=0-3-8, 6=0-3-8
Max Horz 6=260(LC 11)
Max Uplift 10=-135(LC 8), 6=-135(LC 9)
Max Grav 10=760(LC 1), 6=760(LC 1)

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

TOP CHORD 1-10=-688/469, 1-2=-511/263, 2-4=-498/256, 4-5=-407/250, 5-6=-705/458
BOT CHORD 2-9=-415/326, 6-7=-290/300
WEBS 1-9=-445/697, 7-9=-328/462, 4-7=-480/397, 5-7=-411/671

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 16-1-12, Corner(3) 16-1-12 to 19-1-12 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) 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) 10=135, 6=135.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 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 Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:29 2021 Page 1
ID:VPVayEnP0P0b1i2tZrIQgezdKbx-vba5JMOx_?7Vt56YNjZ0rOX3D06E33hObrvWiFvaUy

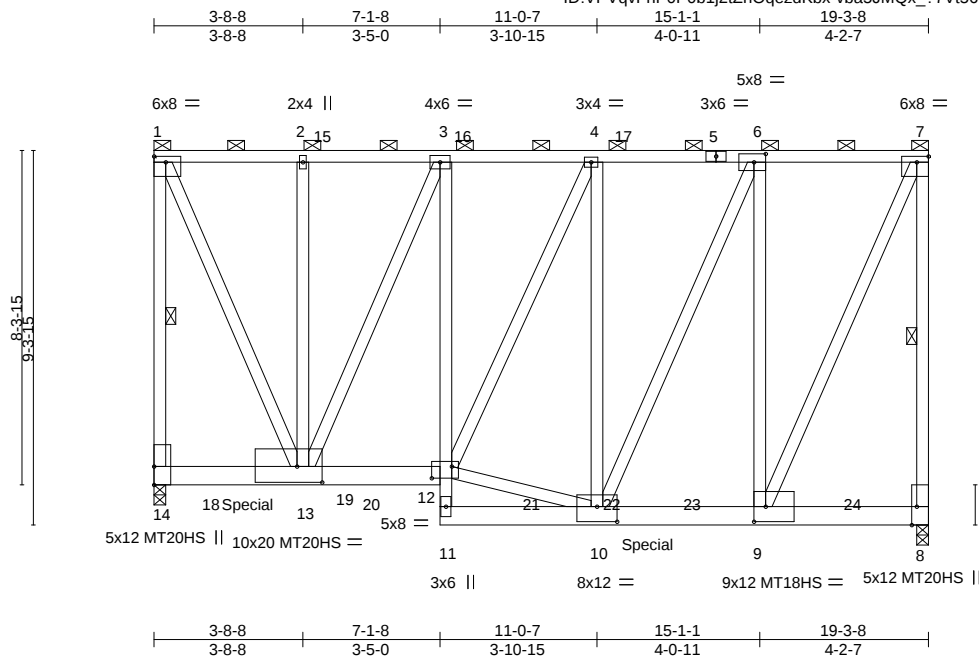


Plate Offsets (X,Y)--											[1:Edge,0-1-12], [6:0-3-8,0-2-8], [7:Edge,0-1-12], [8:0-5-8,Edge], [9:0-3-8,0-4-8], [10:0-6-0,0-4-8], [12:0-6-0,0-3-8], [13:0-7-8,0-4-12]																					
LOADING (psf)			SPACING-			2-0-0			CSI.			DEFL.			in (loc)			l/defl			L/d			PLATES			GRIP					
TCLL 20.0			Plate Grip DOL			1.15			TC 0.65			Vert(LL)			-0.10			10-11			>999			240			MT20			197/144		
(Roof Snow=20.0)			Lumber DOL			1.15			BC 0.39			Vert(CT)			-0.18			10-11			>999			180			MT20HS			148/108		
TCDL 10.0			Rep Stress Incr			NO			WB 0.96			Horz(CT)			0.03			8			n/a			n/a			MT18HS			197/144		
BCLL 0.0			Code IRC2018/TPI2014			Matrix-MS																					Weight: 355 lb			FT = 20%		
BCDL 10.0																																

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.
BOT CHORD	2x6 SP 2400F 2.0E *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
	3-11: 2x4 SPF No.2	WEBS	1 Row at midpt 1-14, 7-8
WEBS	2x4 SPF No.2 *Except*		
	1-14,7-8: 2x4 SPF 1650F 1.5E		

REACTIONS. (size) 14=0-3-8, 8=0-3-8
Max Uplift 14=-672(LC 4), 8=-633(LC 5)
Max Grav 14=7269(LC 1), 8=6823(LC 1)

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

TOP CHORD 1-14=-6366/603, 1-2=-2819/259, 2-3=-2819/259, 3-4=-4218/387, 4-6=-3945/361,
6-7=-2751/254, 7-8=-6158/588

BOT CHORD 12-13=-389/4235, 11-12=-32/527, 3-12=-240/2894, 10-11=-43/466, 9-10=-254/2751

WEBS 1-13=-628/6850, 3-13=-3430/323, 10-12=-332/3628, 4-12=-69/631, 4-10=-791/119,
6-10=-271/2894, 6-9=-2884/313, 7-9=-610/6626

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 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-3-0 oc; 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 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) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- 4) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=672, 8=633.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1407 lb down and 139 lb up at 1-4-4, 1407 lb down and 139 lb up at 3-4-4, 1388 lb down and 139 lb up at 5-4-4, 1388 lb down and 138 lb up at 7-3-4, 1404 lb down and 140 lb up at 9-4-4, 1380 lb down and 139 lb up at 11-4-4, 1391 lb down and 139 lb up at 13-4-4, and 1412 lb down and 140 lb up at 15-4-4, and 1394 lb down and 141 lb up at 17-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



August 9, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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/11 Hawthorn	I47354478
2888681	C8	Roof Special Girder	1	2	Job Reference (optional)	

NOTES-

12) Special hanger(s) or other connection device(s) shall be provided starting at 2-4-4 from the left end to 12-3-12 sufficient to connect truss(es) to front face of bottom chord.

The design/selection of such special connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-7=-60, 12-14=-20, 8-11=-20

Concentrated Loads (lb)

Vert: 12=-1388(F) 9=-1412(F) 18=-1407(F) 19=-1407(F) 20=-1388 21=-1404(F) 22=-1380(F) 23=-1391(F) 24=-1394(F)

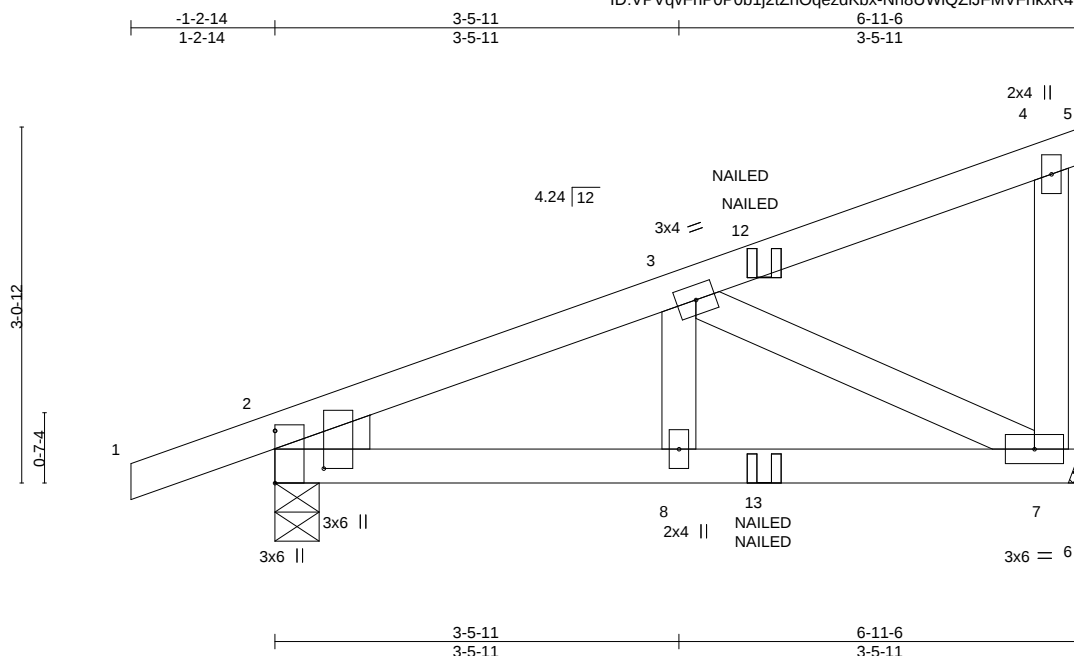
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354479
2888681	CJ1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:30 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-Nn8UWiQZJFMVFhKxR4FOb4MEoWmoj4ZpVh3EiyqUyh



Scale = 1:19.8

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

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15		TC 0.18	Vert(LL) -0.01	7-8	>999	240	MT20	197/144
(Roof Snow=20.0)	Lumber DOL 1.15		BC 0.18	Vert(CT) -0.01	7-8	>999	180		
TCDL 10.0	Rep Stress Incr NO		WB 0.12	Horz(CT) 0.00	7	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-MP						
BCDL 10.0								Weight: 27 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9
Max Horz 2=97(LC 9)
Max Uplift 7=-28(LC 7), 2=-62(LC 10)
Max Grav 7=402(LC 15), 2=431(LC 15)

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

TOP CHORD 2-3=-518/30
BOT CHORD 2-8=-55/456, 7-8=-55/456
WEBS 3-7=-505/45

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-5=-60, 6-9=-20
Concentrated Loads (lb)
Vert: 12=-34(F=-17, B=-17) 13=-31(F=-15, B=-15)



August 9, 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



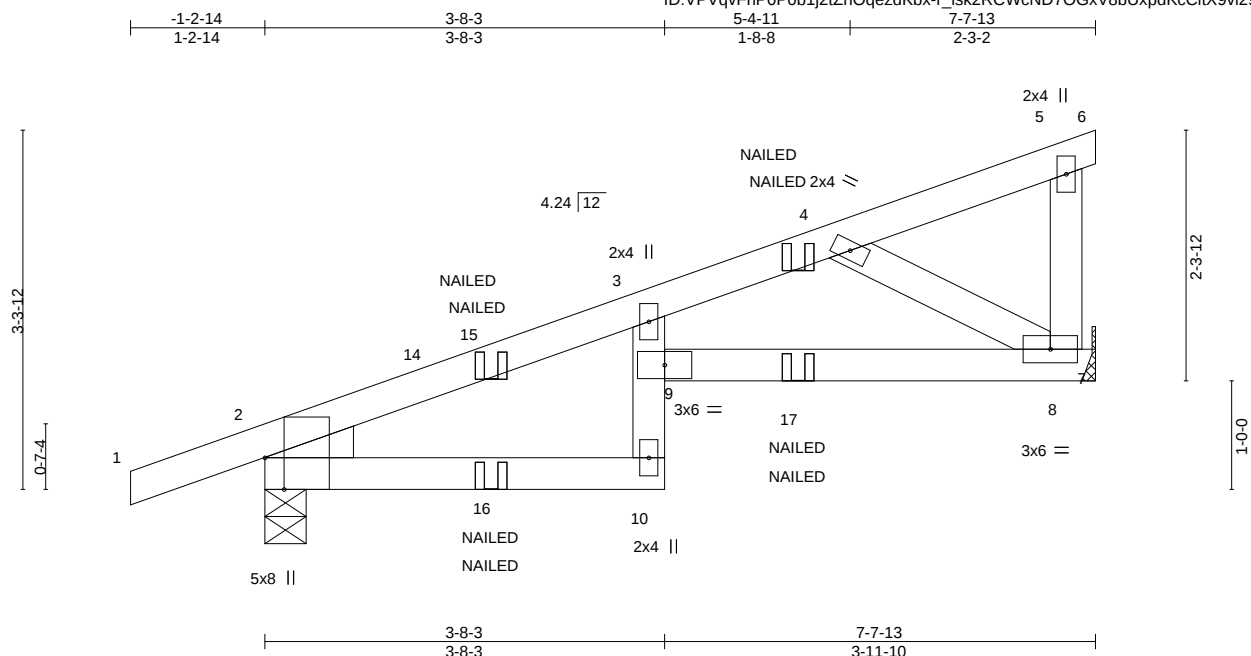
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354480
2888681	CJ2	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:31 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-r_isk2RCWcND7OGxV8bUxpdKcCltX9vi29Rdn8yqUyg



Scale = 1:21.2

Plate Offsets (X,Y)--		[2:0-3-8,Edge]							
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.15	10	l/defl
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.23	10	L/d
TCDL	10.0	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.09	8	n/a
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP					
BCDL	10.0								
								PLATES	
								GRIP	
								MT20	
								197/144	
								Weight: 26 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 4-5-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-4-9, 8=Mechanical
Max Horz 2=88(LC 7)
Max Uplift 2=-79(LC 10), 8=-62(LC 10)
Max Grav 2=494(LC 15), 8=519(LC 15)

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

TOP CHORD 2-3=-399/40, 3-4=-773/105
BOT CHORD 2-10=-35/286, 3-9=-20/277, 8-9=-102/839
WEBS 4-8=-948/139

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60, 5-6=-60, 10-11=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 16=-7(F=-3, B=-3) 17=-149(F=-75, B=-75)



August 9, 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/11 Hawthorn	147354481
2888681	D1	GABLE	1	1	Job Reference (optional)	

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

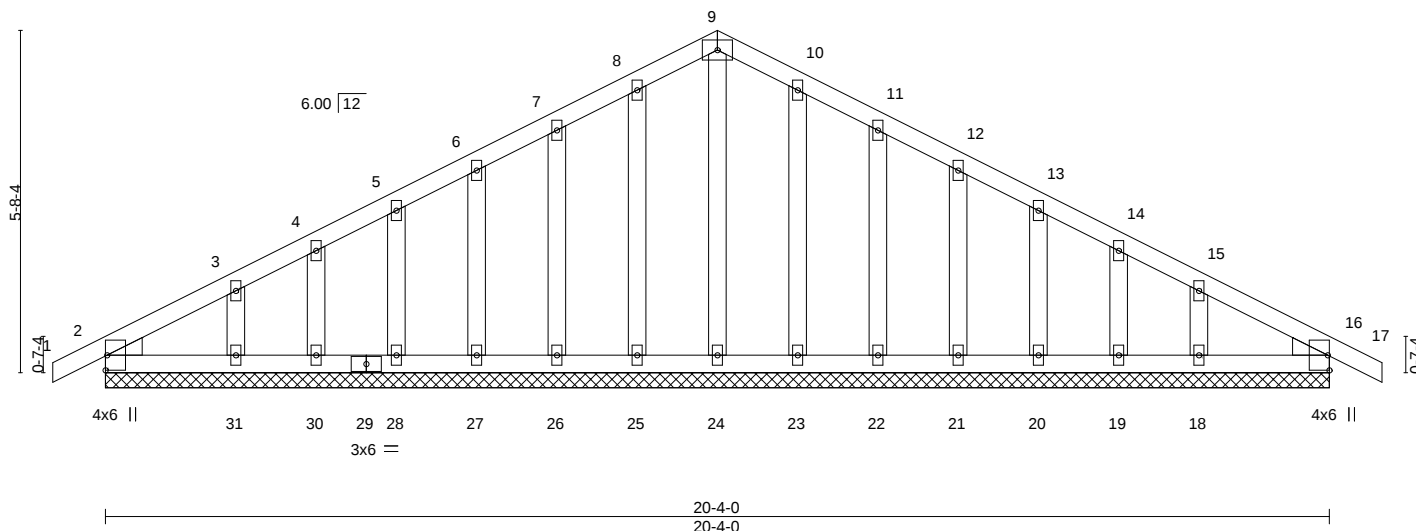
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:32 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-KAGExNSqHwW4kYq72s6jT09kvcEhGbsHpAAJaqUyf

0-10-8 10-2-0 20-4-0 21-2-8
0-10-8 10-2-0 10-2-0 0-10-8

4x6 =

Scale = 1:38.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	0.00 16 n/r 120	MT20		197/144	
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00 16 n/r 120				
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00 16 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S							
BCDL	10.0										
								Weight: 97 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

OTHERS 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" oc purlins.

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

REACTIONS.

All bearings 20'-4-0.

(lb) - Max Horz 2=105(LC 13)

Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 16, 22, 21, 20, 19, 18

Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 30, 31, 23, 16, 22, 21, 20, 19, 18

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-2-0, Exterior(2N) 2-2-0 to 10-2-0, Corner(3R) 10-2-0 to 13-2-0, Exterior(2N) 13-2-0 to 21-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 1'-4" oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 16, 22, 21, 20, 19, 18.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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

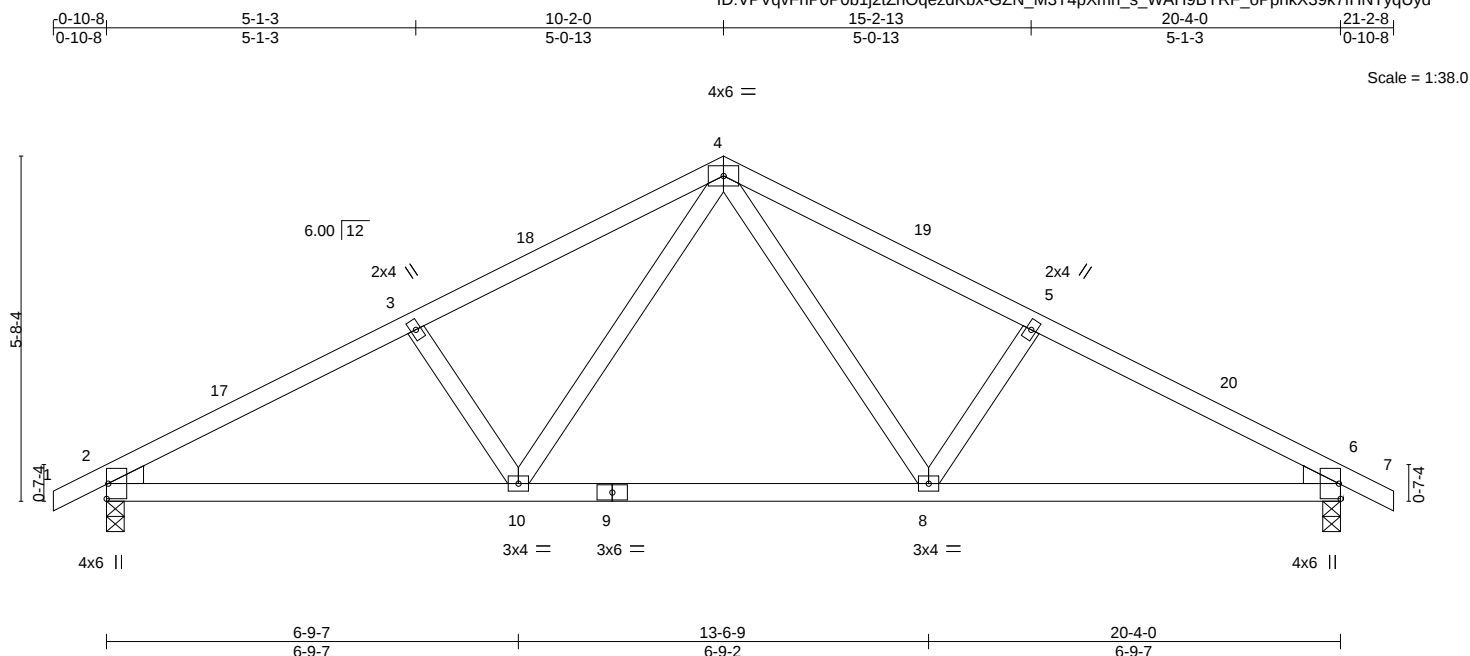
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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 Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:34 2021 Page 1
ID:VPVayEnP0P0b1i2tZrIQaezdKbx-GZN M3T4pXmn s WAH9BYRE oPpnkX39k7fHnTvaUvd

[illegible]

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.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
 Max Horz 2=-105(LC 12)
 Max Uplift 2=-101(LC 14), 6=-101(LC 14)
 Max Grav 2=903(LC 19), 6=903(LC 20)

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

TOP CHORD 2-3=-1401/285, 3-4=-1249/299, 4-5=-1249/299, 5-6=-1401/285
BOT CHORD 2-10=-177/1201, 8-10=-64/774, 6-8=-184/1201
WEBS 4-8=-78/480, 5-8=-341/146, 4-10=-78/480, 3-10=-341/146

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-2-0, Exterior(2R) 10-2-0 to 13-2-0, Interior(1) 13-2-0 to 21-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=101, 6=101.
- 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.



August 9, 2021



WARNING – Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1473 (Rev. 3/29/2020) 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 2888681	Truss D3	Truss Type Common Girder	Qty 1	Ply 2	Summit/11 Hawthorn	147354483
----------------	-------------	-----------------------------	----------	----------	--------------------	-----------

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:35 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-klxNZPUIzrueb0Zik_gQ5fn5Bp8?TsrlnPqwyvYuc

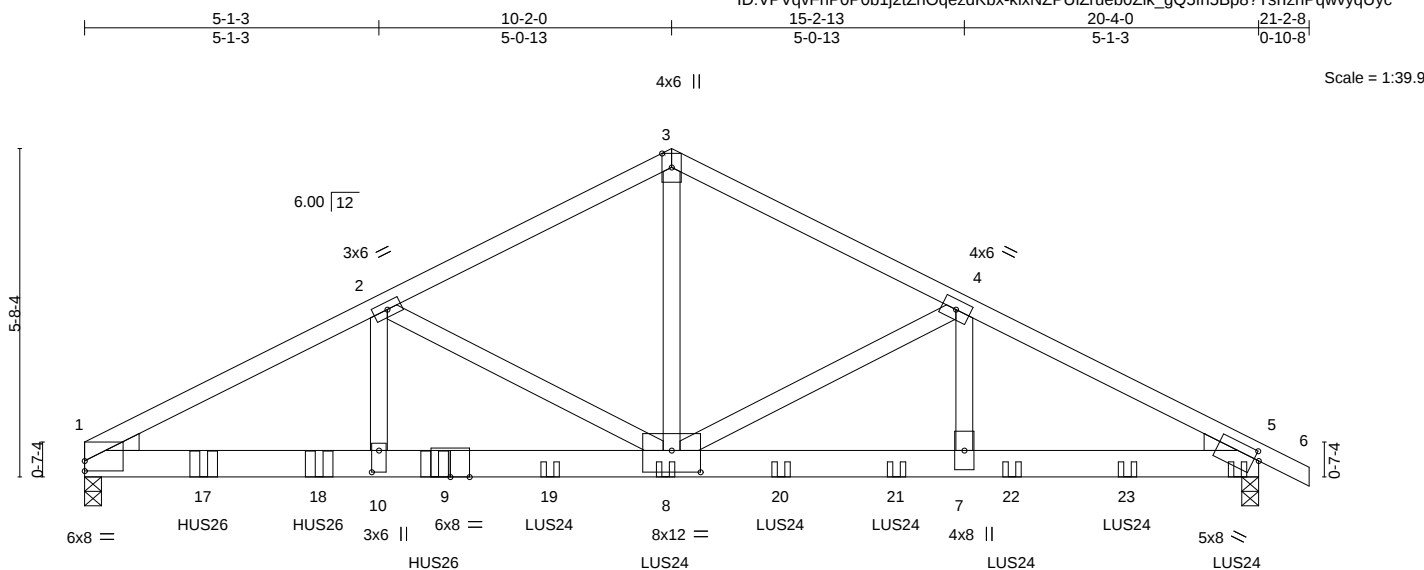


Plate Offsets (X,Y)--	[1:0-0-0,0-2-1], [5:0-1-0,0-1-12], [8:0-6-0,0-4-8], [10:0-4-8,0-1-8]
-----------------------	--

LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	TC 0.62 BC 0.50 WB 0.60 Matrix-MS	in (loc) l/defl L/d Vert(LL) -0.12 8-10 >999 240 Vert(CT) -0.23 8-10 >999 180 Horz(CT) 0.05 5 n/a n/a	MT20	197/144
TCDL 10.0					
BCLL 0.0					
BCDL 10.0					
				Weight: 193 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins.
BOT CHORD 2x6 SPF 2100F 1.8E *Except* 5-9: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SP No.3 , Right: 2x4 SP No.3	

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-104(LC 8)
Max Uplift 1=-460(LC 10), 5=-563(LC 10)
Max Grav 1=4717(LC 15), 5=5552(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8200/820, 2-3=-5884/626, 3-4=-5884/626, 4-5=-8298/827
BOT CHORD 1-10=-666/7273, 8-10=-666/7273, 7-8=-672/7364, 5-7=-672/7364
WEBS 3-8=-473/4853, 4-8=-2499/284, 4-7=-153/1936, 2-8=-2395/277, 2-10=-144/1849

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=460, 5=563.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 6-0-12 to connect truss(es) to back face of bottom chord.
 - Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 8-0-12 from the left end to 19-11-10 to connect truss(es) to back face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.



August 9, 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/11 Hawthorn	I47354483
2888681	D3	Common Girder	1	2	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:35 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-klxNZPUiZrueb0Zik_gQ5fn5Bp8?TsrIznPqwvyqUyc

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-6=-60, 11-14=-20

Concentrated Loads (lb)

Vert: 9=-851(B) 8=-851(B) 16=-858(B) 17=-851(B) 18=-851(B) 19=-851(B) 20=-851(B) 21=-851(B) 22=-851(B) 23=-851(B)

 **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/11 Hawthorn	147354484
2888681	E1	ROOF SPECIAL GIRDER	1	3	Job Reference (optional)	

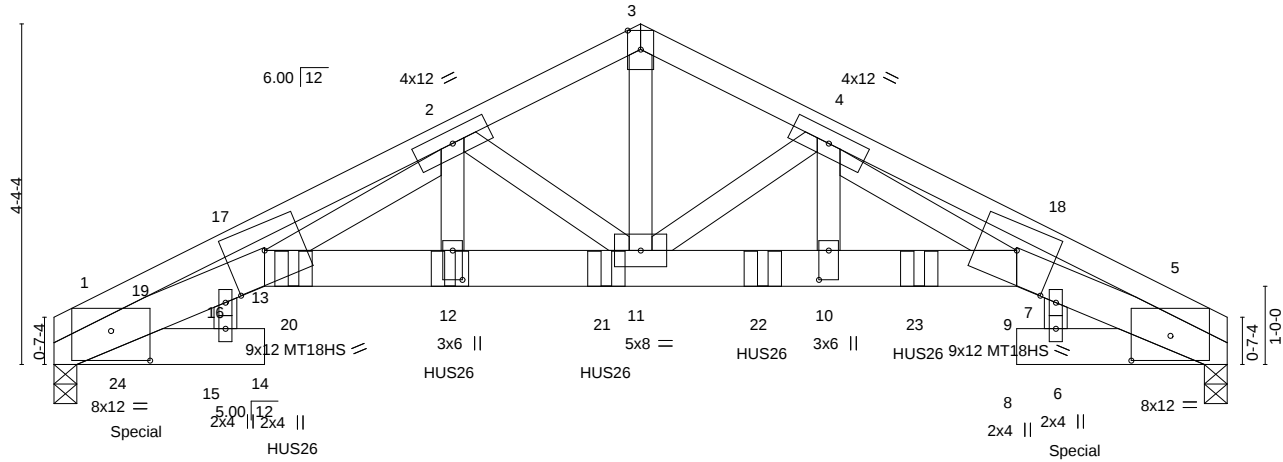
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:37 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-g737_5Wy5S8MrJ4rPiuA4sOzdmVxnabQ5ux_oyqUya



4x6 ||

Scale = 1:29.5



	2-2-5	2-8-5	5-1-2	7-6-0	9-10-14	12-3-11	12-9-11	15-0-0
	2-2-5	2-8-5	5-1-2	7-6-0	9-10-14	12-3-11	12-9-11	15-0-0
Plate Offsets (X, Y)	[1:0-6-0,0-4-9], [5:0-6-0,0-3-13], [9:0-6-0,0-5-0], [10:0-4-8,0-1-8], [12:0-4-8,0-1-8], [13:0-6-0,0-5-0]							

LOADING (psf)	SPACING	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.79	in (loc) l/defl L/d	MT20 197/144	
(Roof Snow=20.0)	Lumber DOL 1.15	BC 0.75	Vert(LL) -0.16 9-10 >999 240	MT18HS 197/144	
TCDL 10.0	Rep Stress Incr NO	WB 0.52	Vert(CT) -0.28 12-13 >606 180		
BCLL 0.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.15 5 n/a n/a		
BCDL 10.0				Weight: 235 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-13 oc purlins.
BOT CHORD 2x6 SP 2400F 2.0E *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
9-13: 2x6 SPF 2100F 1.8E, 1-14,5-8: 2x6 SPF No.2	6-0-0 oc bracing: 1-15,5-6.
WEBS 2x4 SPF No.2	10-0-0 oc bracing: 13-16, 7-9

REACTIONS.	(size)
Max Horz 1=67(LC 26)	1=0-3-8, 5=0-3-8
Max Uplift 1=441(LC 10), 5=418(LC 10)	
Max Grav 1=5941(LC 14), 5=5364(LC 15)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-14113/1025, 2-3=-7402/619, 3-4=-7400/619, 4-5=-14371/1112
BOT CHORD	1-16=-882/12668, 13-16=-869/12475, 12-13=-750/10265, 11-12=-749/10245, 10-11=-778/10336, 9-10=-780/10356, 7-9=-964/12939, 5-7=-950/12768
WEBS	3-11=-517/6313, 4-11=-4634/387, 4-10=-262/3754, 2-11=-4519/351, 2-12=-237/3670, 2-13=-154/2876, 4-9=-215/3049, 15-16=-17/288

- NOTES-**
- 3-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected with 10d (0.148"x3") nails as follows: 2x6 - 3 rows staggered at 0-4-0 oc.
Web connected with 10d (0.131"x3") nails 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.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - All plates are MT20 plates unless otherwise indicated.
 - The Fabrication Tolerance at joint 13 = 12%, joint 9 = 16%
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 1, 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) except (jt=lb) 1=441, 5=418.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 3-0-12 from the left end to 9-0-12 to connect truss(es) to back face of bottom chord.



August 9,2021

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	I47354484
2888681	E1	ROOF SPECIAL GIRDER	1	3	Job Reference (optional)	

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Jun 2 2021 MiTek Industries, Inc.
Fri Aug 6 17:59:37 2021
Page 2
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-g737_5Wy5S8MrJj4rPiuA4sOzdmVxnabQ5ux_oyqUya

- NOTES-**
- 13) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent at 11-0-12 from the left end to connect truss(es) to back face of bottom chord.
- 14) Fill all nail holes where hanger is in contact with lumber.
- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1462 lb down and 128 lb up at 1-0-12, and 1472 lb down and 127 lb up at 13-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 13-16=-20, 9-13=-20, 7-9=-20, 1-14=-20, 5-8=-20

Concentrated Loads (lb)

Vert: 12=-1460(B) 7=-1472(B) 19=-1462(B) 20=-1388(B) 21=-1345(B) 22=-1394(B) 23=-1512(B)

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354485
2888681	E2	Roof Special	2	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:38 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-8KdVCRXbsmGDSTIHP6D7jHPWV03ogMzkfidUXEyyUyZ

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

Scale = 1:29.3

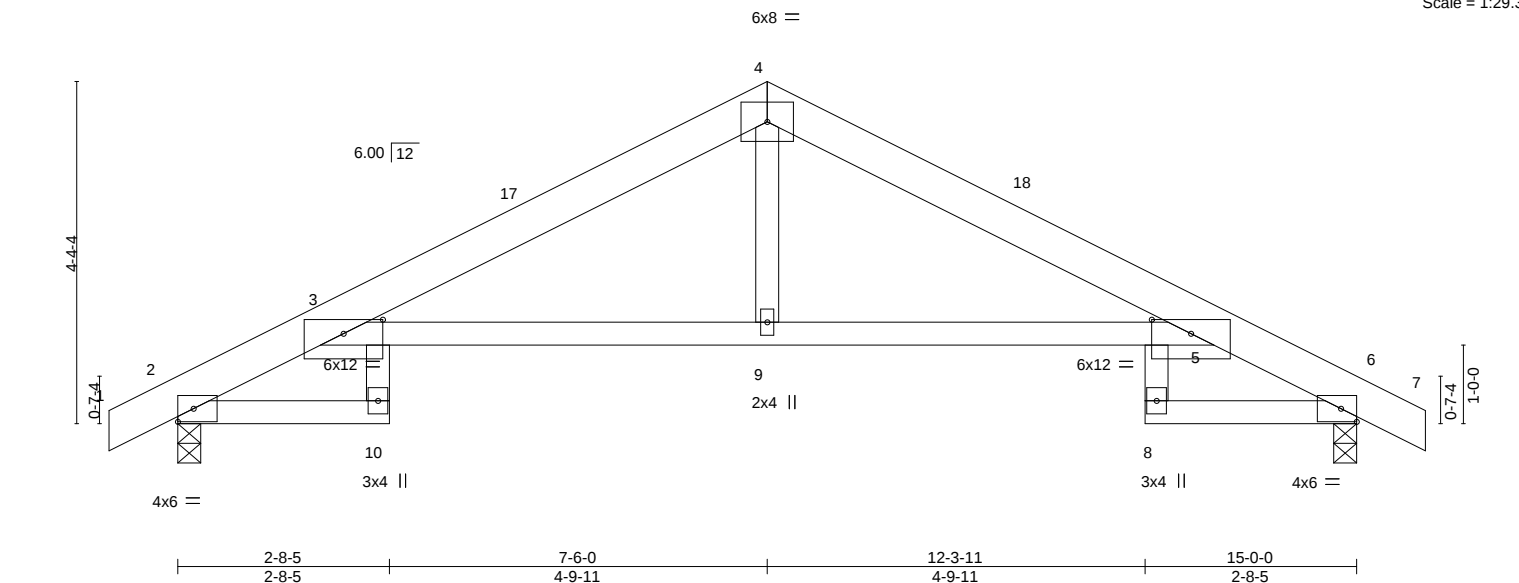


Plate Offsets (X, Y)--		[3:0-6-0,0-2-2], [5:0-6-0,0-2-2]							
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.99	in (loc)	l/defl	MT20	GRIP
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.94	Vert(LL)	>746		197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Vert(CT)	>404		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS		Horz(CT)	0.35		
BCDL	10.0								
								Weight: 58 lb FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-80(LC 12)
Max Uplift 2=-78(LC 14), 6=-78(LC 14)
Max Grav 2=731(LC 19), 6=731(LC 20)

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

TOP CHORD 3-12=-326/125, 3-4=-1100/285, 4-5=-1100/284, 5-6=-326/126
BOT CHORD 3-9=-138/988, 5-9=-138/988
WEBS 4-9=0/258

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-6-0, Exterior(2R) 7-6-0 to 10-6-0, Interior(1) 10-6-0 to 15-10-8 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
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
- 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.



August 9, 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

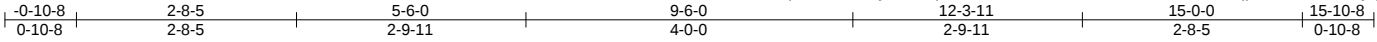


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354486
2888681	E3	HIP GIRDER	1	2	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:40 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-5ikGd7YrONWxinSfWXGboiUvtqpT8EK1636bb7yqUyX



Scale = 1:28.2

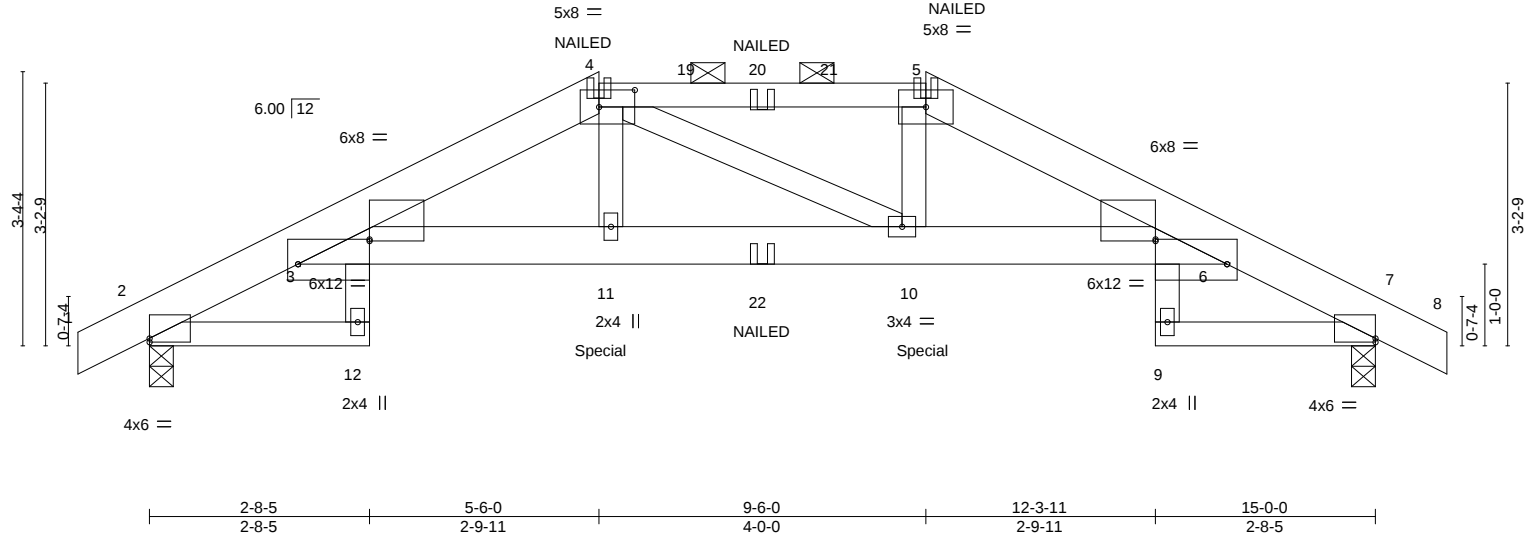


Plate Offsets (X,Y)-- [2:0-0-0,0-0-9], [3:0-10-8,0-3-10], [3:0-10-8,0-3-6], [4:0-5-4,0-2-8], [6:0-10-8,0-3-10], [6:0-10-8,0-3-6], [7:0-0-0,0-0-9]																				
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.			in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL 20.0		Plate Grip DOL		1.15		TC 0.81		Vert(LL)			-0.19 6-10			>933 240			MT20		197/144	
(Roof Snow=20.0)		Lumber DOL		1.15		BC 0.61		Vert(CT)			-0.30 6-10			>604 180						
TCDL 10.0		Rep Stress Incr		NO		WB 0.13		Horz(CT)			0.28 7			n/a n/a						
BCLL 0.0		Code IRC2018/TPI2014				Matrix-MS											Weight: 133 lb		FT = 20%	
BCDL 10.0																				

LUMBER-	BRACING-
TOP CHORD 2x6 SPF 2100F 1.8E *Except*	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
4-5: 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
3-6: 2x6 SPF 2100F 1.8E	
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 2=0-3-8, 7=0-3-8
	Max Horz 2=60(LC 47)
	Max Uplift 2=-197(LC 10), 7=-197(LC 10)
	Max Grav 2=1714(LC 29), 7=1714(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 3-14=-782/121, 3-4=-4311/493, 4-5=-4036/476, 5-6=-4268/486, 6-7=-783/121	
BOT CHORD 3-11=-379/3968, 10-11=-388/4076, 6-10=-373/3931	
WEBS 4-11=-90/1068, 5-10=-85/1034	

- 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.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=197, 7=197.
 - This truss 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) 593 lb down and 111 lb up at 5-6-0, and 593 lb down and 111 lb up at 9-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



August 9, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	I47354486
2888681	E3	HIP GIRDER	1	2	Job Reference (optional)	

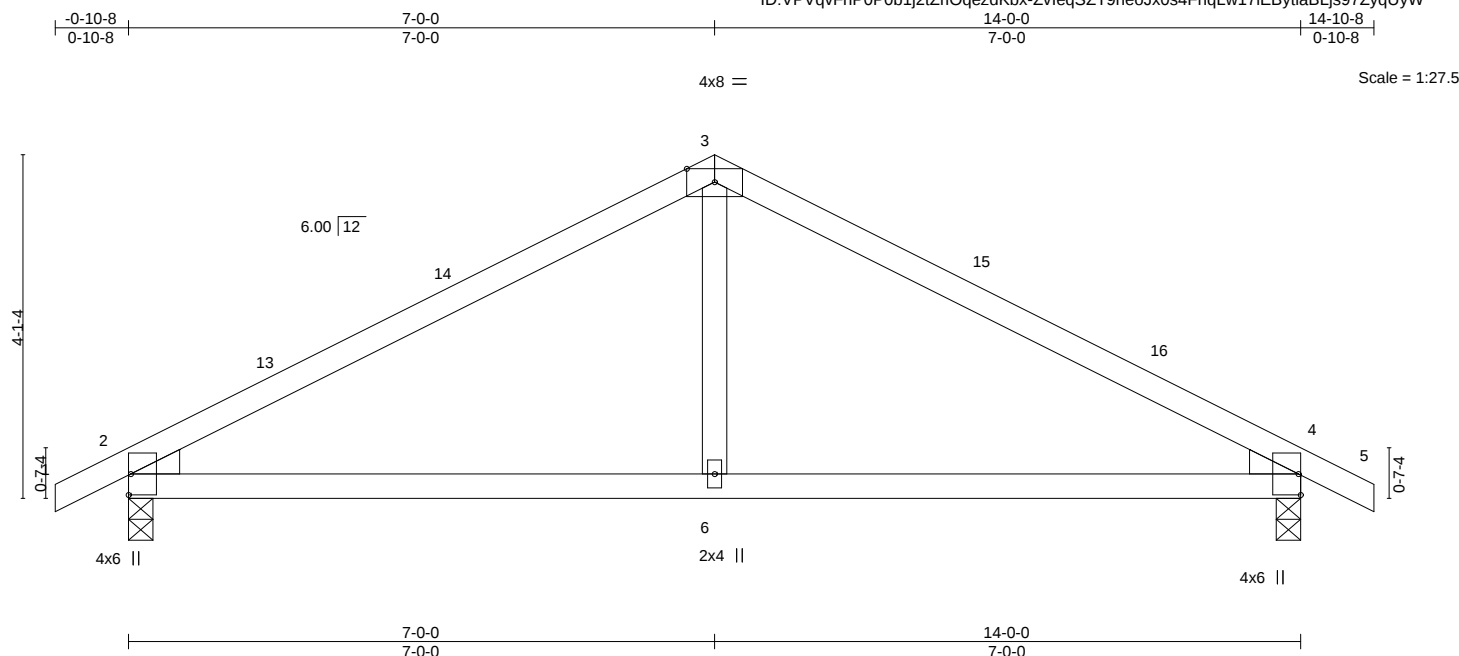
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:40 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-5ikGd7YrONWxinSfWXGboiUvtqpT8EK1636bb7yqUyX

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-3=-60, 3-4=-60, 4-5=-60, 5-6=-60, 6-8=-60, 12-13=-20, 3-6=-20, 9-16=-20
 - Concentrated Loads (lb)
 - Vert: 4=-128(F) 5=-128(F) 11=-593(F) 10=-593(F) 20=-128(F) 22=-103(F)



[illegible]

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.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
 Max Horz 2=-75(LC 12)
 Max Uplift 2=-78(LC 14), 4=-78(LC 14)
 Max Grav 2=681(LC 19), 4=681(LC 20)

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

TOP CHORD 2-3=-791/246, 3-4=-791/246
BOT CHORD 2-6=-98/606, 4-6=-98/606
WEBS 3-6=0/298

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-10-8 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
- 2) TcLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 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.



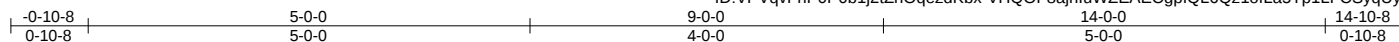
August 9, 2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) 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



Scale = 1:26.1

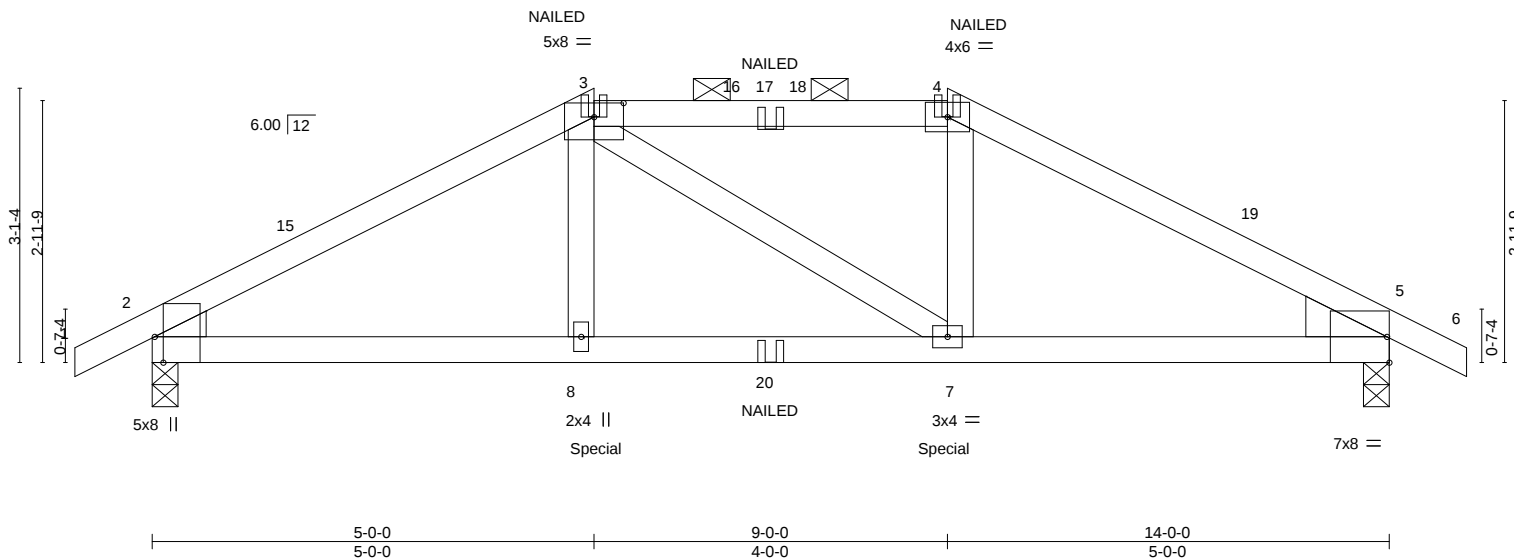


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-4-0,0-1-15]									
LOADING (psf)		SPACING- 2-0-0		CSL		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.11 7-8 >999 240	MT20	197/144
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.16 7-8 >999 180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.05 5 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 49 lb	FT = 20%
BCDL	10.0								

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-4-1 oc purlins, except 2-0-0 oc purlins (3-0-12 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=-55(LC 46)
 Max Uplift 2=-141(LC 10), 5=-141(LC 10)
 Max Grav 2=1475(LC 29), 5=1475(LC 29)

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

TOP CHORD 2-3=-2332/213, 3-4=-1966/210, 4-5=-2333/213
BOT CHORD 2-8=-123/1992, 7-8=-124/1965, 5-7=-123/1993
WEBS 3-8=0/516, 4-7=0/530

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=141, 5=141.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 430 lb down and 55 lb up at 5-0-0, and 430 lb down and 55 lb up at 8-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



August 9, 2021

Continued on page 2



WARNING – Velly design parameters are READ-ONLY on this and INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) 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/11 Hawthorn	I47354488
2888681	F2	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:43 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-VHQOF8ajhluWZEAECgplQL6Qz1ofLa5Tp1LFCSyqUyU

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 4-6=-60, 9-12=-20
Concentrated Loads (lb)
Vert: 4=-139(F) 8=-430(F) 7=-430(F) 3=-139(F) 17=-139(F) 20=-56(F)

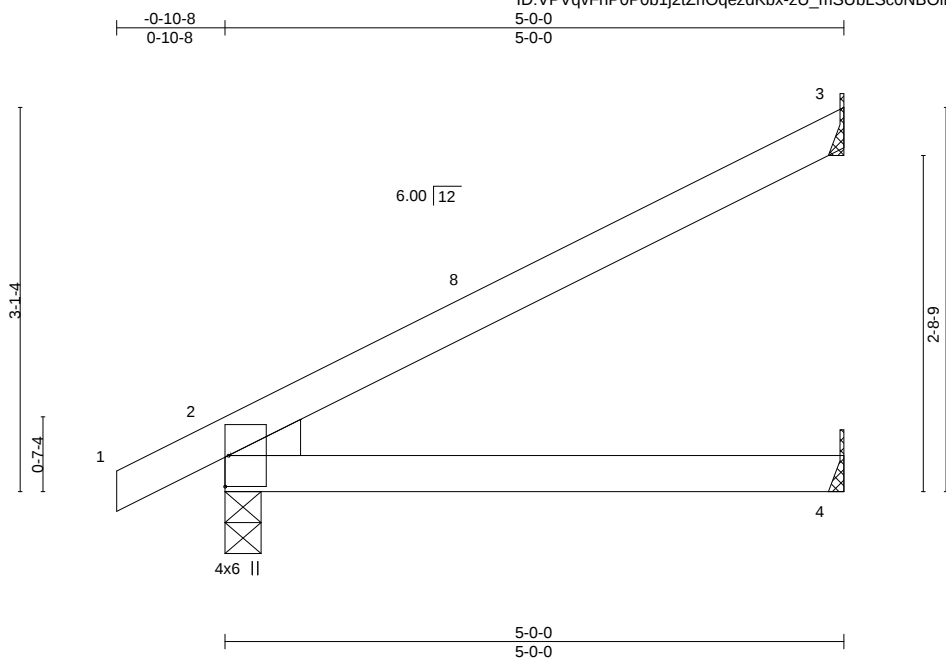
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354489
2888681	J1	Jack-Open	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:44 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-zU_mSubLSc0NBOIRINKXyYfh4RFs43Md1h4pkuyqUyT



Scale = 1:18.6

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.05	MT20		197/144	
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.08				
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS							
BCDL	10.0										
								Weight: 14 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied.

BOT CHORD

Rigid ceiling directly applied.

REACTIONS.

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

Max Horz 2=87(LC 14)

Max Uplift 3=-44(LC 14), 2=-25(LC 14)

Max Grav 3=199(LC 19), 2=337(LC 19), 4=89(LC 5)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 9, 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 2888681	Truss J2	Truss Type Jack-Open	Qty 4	Ply 1	Summit/11 Hawthorn 147354490
----------------	-------------	-------------------------	----------	----------	---------------------------------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

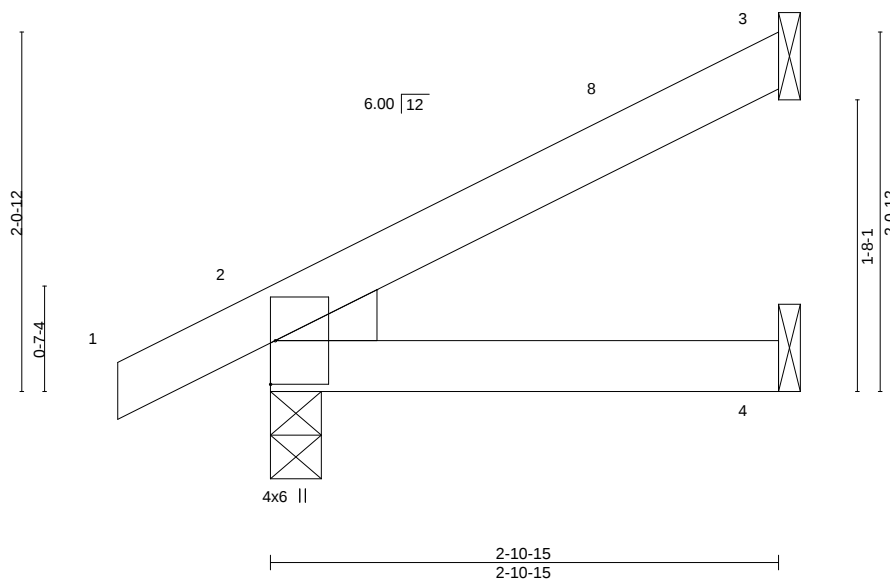
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:44 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-zU_mSubLSc0NBOIRINKXyYfmpRJT43Md1h4pkuyqUyT

-0-10-8
0-10-8

2-10-15
2-10-15

Scale = 1:13.2



LOADING (psf)	SPACING-	CSL	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15	TC 0.11	Vert(LL)	0.01	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT)	-0.01	4-7	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP							
								Weight: 9 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 2-10-15 oc purlins.

BOT CHORD

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

REACTIONS.

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

Max Horz 2=58(LC 14)

Max Uplift 3=-24(LC 14), 2=-27(LC 14)

Max Grav 3=100(LC 19), 2=245(LC 19), 4=51(LC 5)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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 2888681	Truss J3	Truss Type Jack-Open	Qty 3	Ply 1	Summit/11 Hawthorn Job Reference (optional)	I47354491
----------------	-------------	-------------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:45 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-RgY8gqc_Dv8DoYKdJ4rmVmCtXrYnpWcmGLqMGkyqUyS



Scale = 1:19.9

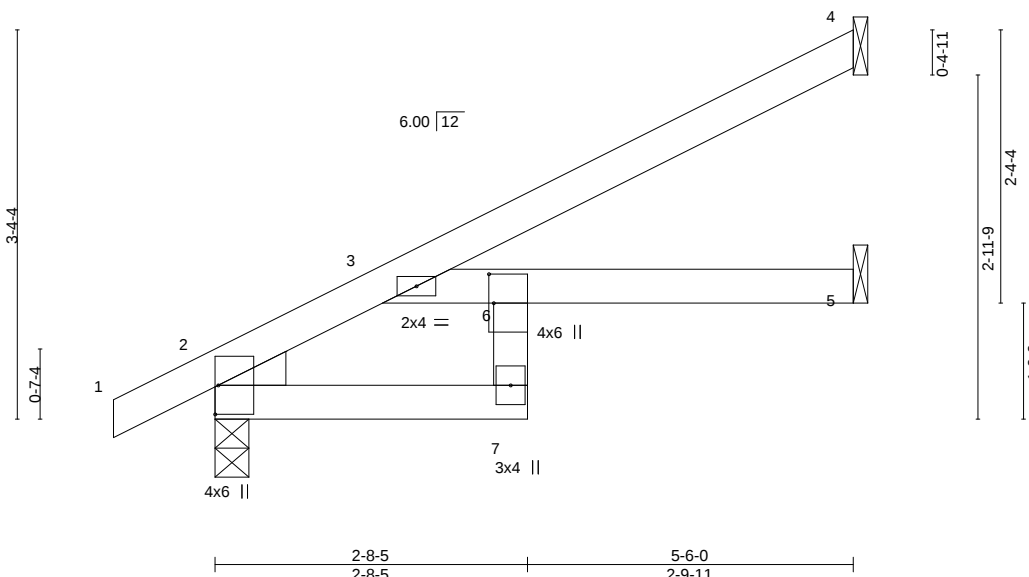


Plate Offsets (X,Y)-- [6:0-3-0,0-0-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.37	Vert(LL)	-0.07	5-6	>992	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.56	Vert(CT)	-0.11	5-6	>591		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.04	5	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 17 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=94(LC 14)
Max Uplift 4=-37(LC 14), 2=-20(LC 14), 5=-1(LC 14)
Max Grav 4=188(LC 19), 2=360(LC 19), 5=123(LC 19)

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

TOP CHORD 3-9=-357/32
BOT CHORD 2-7=-144/255, 3-6=-255/144

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 5-5-4 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



August 9, 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



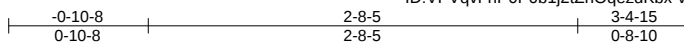
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2888681	Truss J4	Truss Type Jack-Open	Qty 4	Ply 1	Summit/11 Hawthorn 147354492
----------------	-------------	-------------------------	----------	----------	---------------------------------

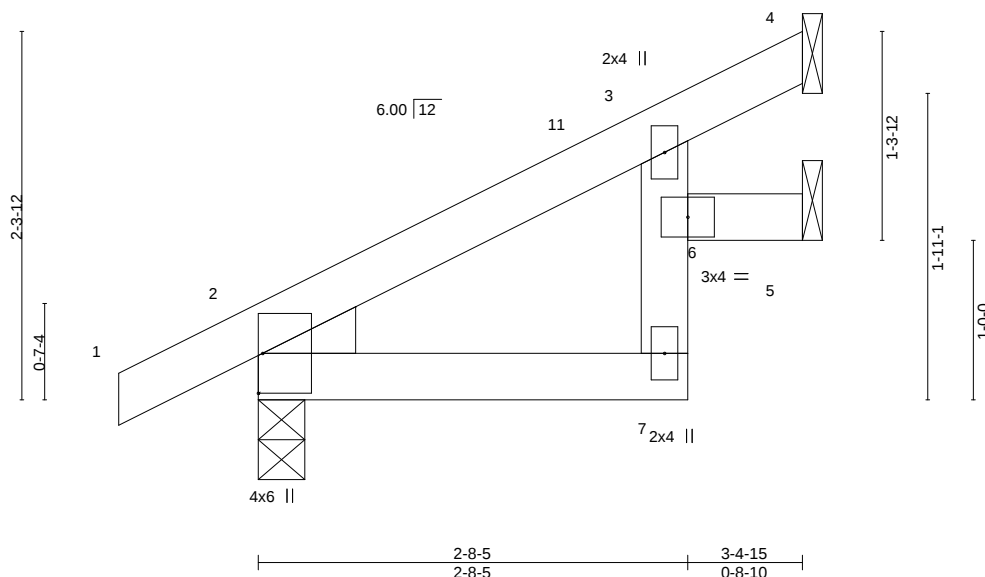
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:46 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-vs6XtAdc_DG4Qivptom?22k6yFzDYzswV_ZwpmqUyR



Scale = 1:14.4



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	Plate Grip DOL	2-0-0	TC 0.07	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 12 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 3-4-15 oc purlins.

BOT CHORD

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=65(LC 14)
Max Uplift 4=-13(LC 14), 2=-26(LC 14), 5=-12(LC 14)
Max Grav 4=72(LC 19), 2=276(LC 19), 5=103(LC 19)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-4-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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

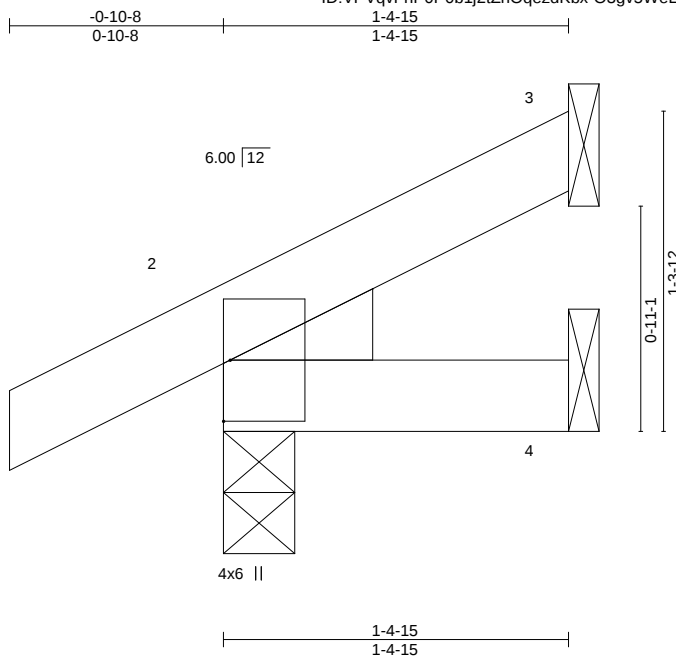
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	J5	Jack-Open	4	1	147354493

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:47 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-O3gv5WeEIXOx2sU?RVuEaBHlofLNHQ63jeJTLdyqUyQ



Scale = 1:9.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.06	Vert(LL) 0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP					Weight: 5 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 1-4-15 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=38(LC 14)
Max Uplift 3=-8(LC 14), 2=-30(LC 14)
Max Grav 3=34(LC 19), 2=167(LC 19), 4=22(LC 5)

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=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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

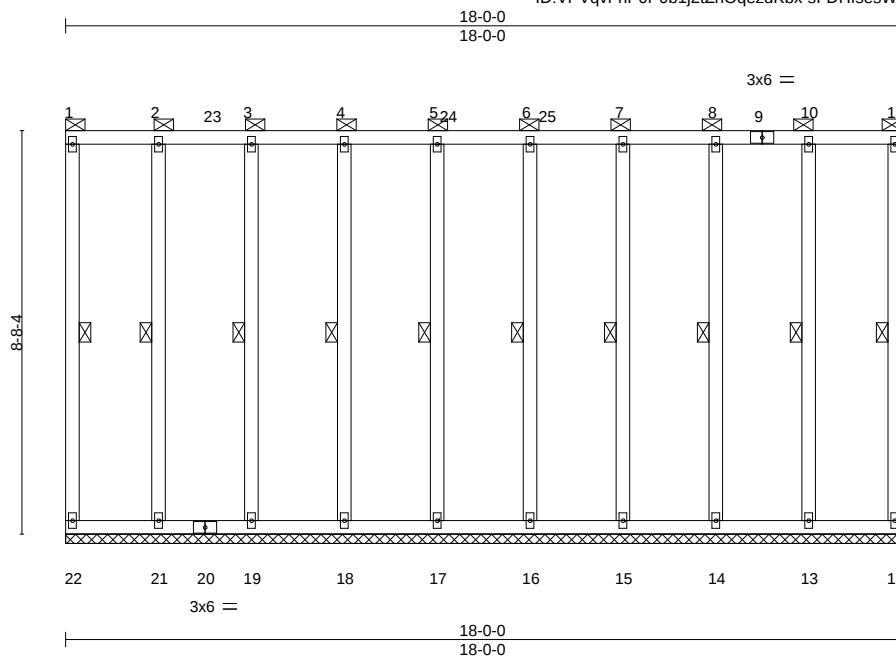
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	LG1	GABLE	1	1	147354494

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:48 2021 Page 1

ID:VPVqvFnP0P0b1j2ZrIQeqzdKbx-sFDHIsesWqXof03C_DPT7OqTy2hS0tiDyl20tfyqUyP



Scale = 1:49.6

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.04	Horz(CT)	0.00	12	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R					Weight: 133 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 2-0-0 oc purlins (6-0-0 max.): 1-11, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-22, 11-12, 2-21, 3-19, 4-18, 5-17, 6-16, 7-15, 8-14, 10-13

REACTIONS.

All bearings 18-0-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 22, 12, 21, 19, 18, 17, 16, 15, 14, 13
Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 19, 18, 17, 16, 15, 14, 13

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=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 14-10-4, Corner(3) 14-10-4 to 17-10-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 12, 21, 19, 18, 17, 16, 15, 14, 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

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

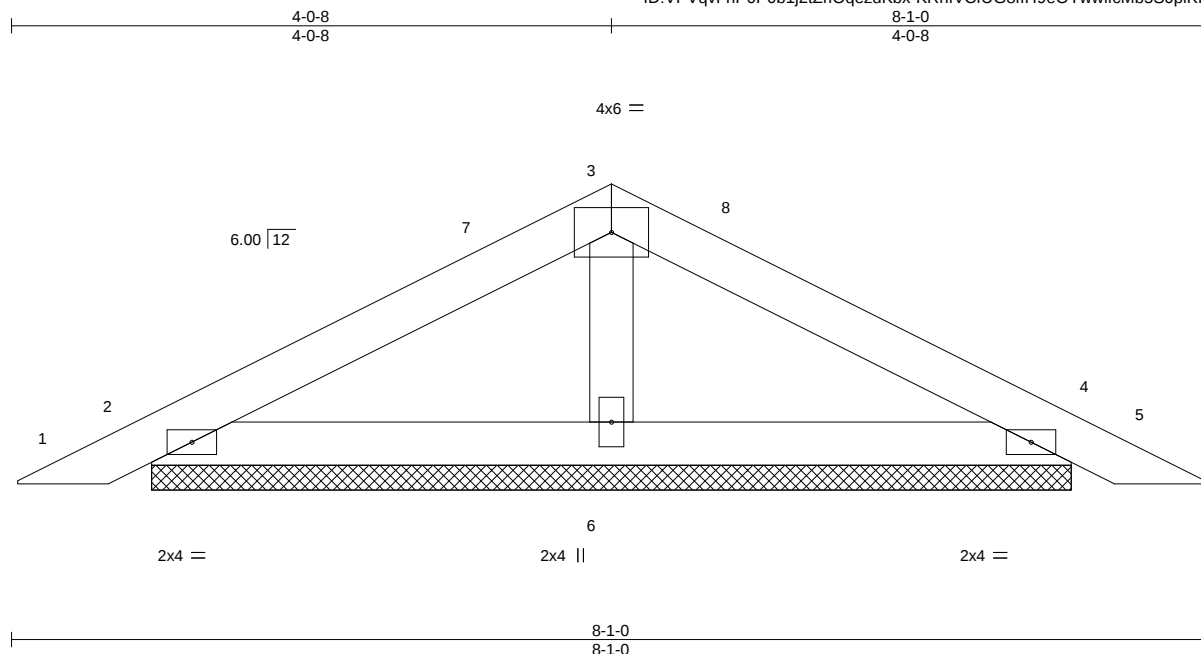
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

[illegible]

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) 2=6-2-6, 4=6-2-6, 6=6-2-6
 Max Horz 2=-35(LC 12)
 Max Uplift 2=-43(LC 14), 4=-43(LC 14)
 Max Grav 2=228(LC 19), 4=228(LC 20), 6=240(LC 20)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-4-3 to 3-4-3, Interior(1) 3-4-3 to 4-0-8, Exterior(2R) 4-0-8 to 7-1-11, Interior(1) 7-1-11 to 7-8-13 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 9, 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.



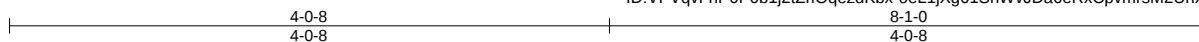
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354496
2888681	PB2	Piggyback	19	1	Job Reference (optional)	

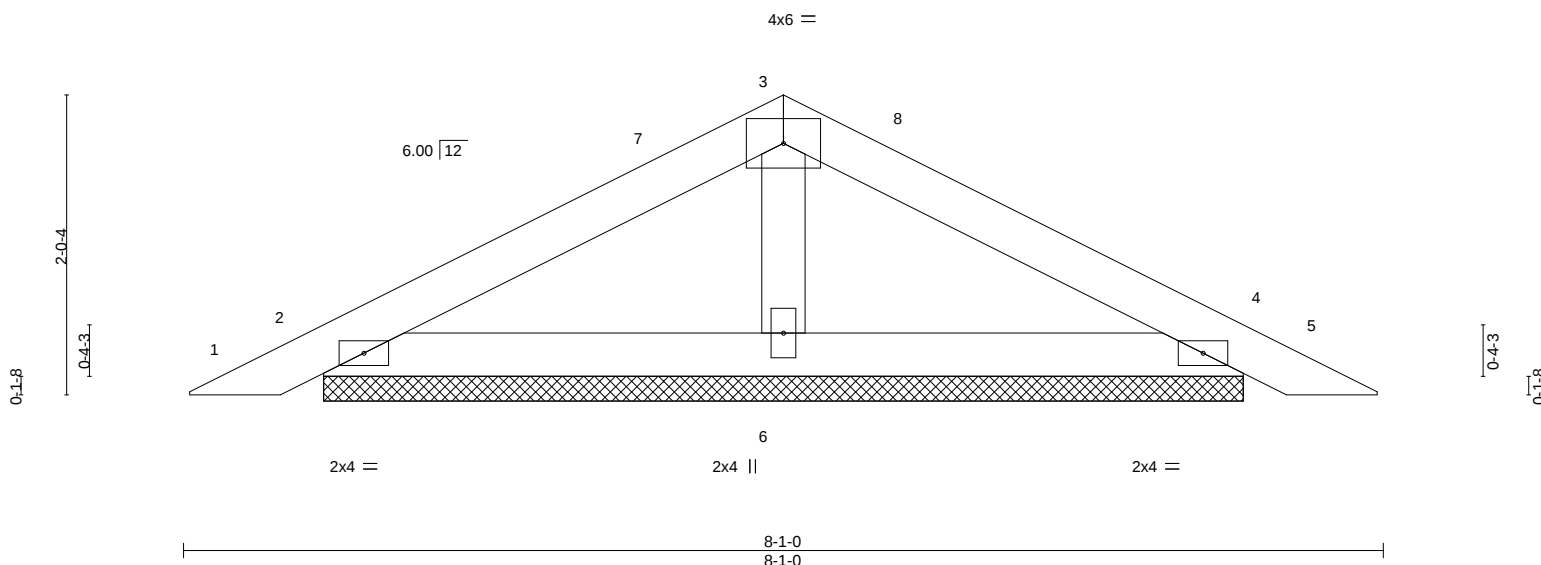
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:50 2021 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-oeL1jXg61SnWwJDa6eRxCpvmrsM2UnXVQcX7yYyqUyN



Scale = 1:15.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.00 4 n/r 120	MT20		197/144	
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00 5 n/r 120				
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00 4 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

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) 2=6-2-6, 4=6-2-6, 6=6-2-6
Max Horz 2=-35(LC 12)
Max Uplift 2=-43(LC 14), 4=-43(LC 14)
Max Grav 2=228(LC 19), 4=228(LC 20), 6=240(LC 20)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-4-3 to 3-4-3, Interior(1) 3-4-3 to 4-0-8, Exterior(2R) 4-0-8 to 7-1-11, Interior(1) 7-1-11 to 7-8-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 9, 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

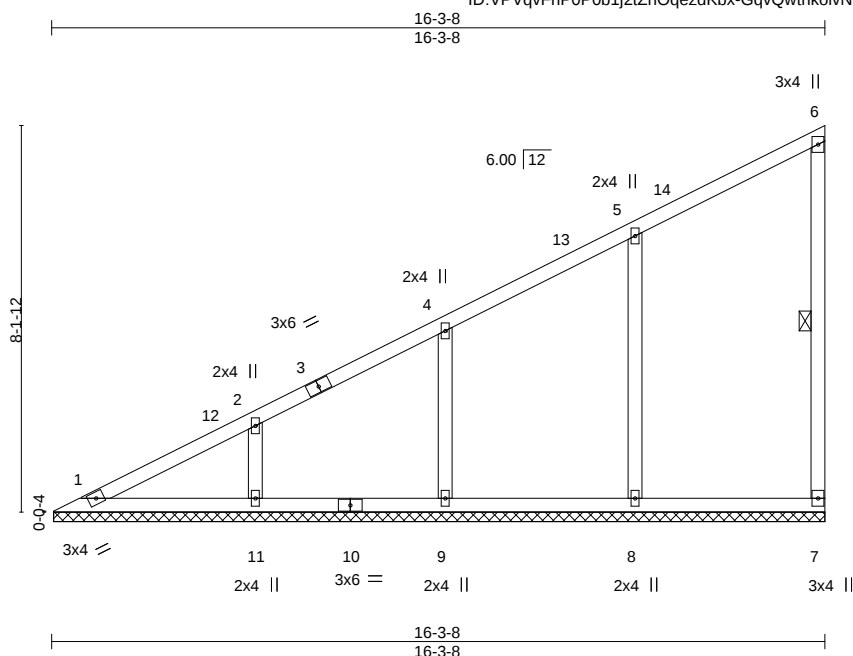
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	V1	Valley	1	1	147354497

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:51 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-GqvQwthkolvNWTnngLyAk1SukGhGDBZfeGHgU_yqUyM



Scale = 1:48.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.32	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.23	Horz(CT)	-0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 59 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.
WEBS 1 Row at midpt 6-7

REACTIONS.

All bearings 16-3-0.

(lb) - Max Horz 1=271(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 7, 8, 9, 11

Max Grav All reactions 250 lb or less at joint(s) 7, 1 except 8=463(LC 18), 9=308(LC 1), 11=346(LC 18)

FORCES.

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

TOP CHORD 1-2=-395/229, 2-4=-308/191

WEBS 5-8=-378/181, 2-11=-255/155

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 16-1-12 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) 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) 7, 8, 9, 11.
- 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.



August 9,2021

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

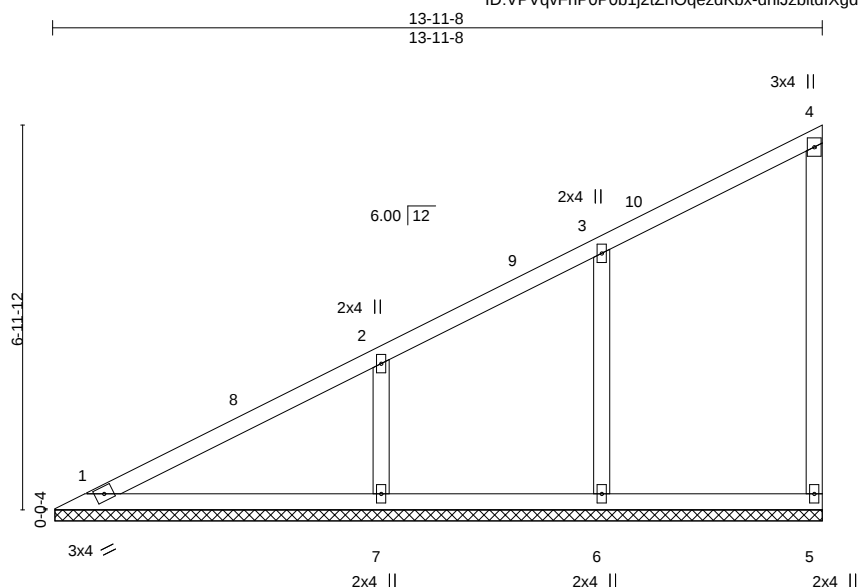
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	V2	Valley	1	1	I47354498

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:56 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-dniJzbltdIXgdEgkSuYLR49mkH0muTF0oY_R9ByqUyH



Scale = 1:41.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.30	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.13	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 48 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 13-11-0.

(lb) - Max Horz 1=230(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 5, 6, 7

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=418(LC 18), 7=442(LC 1)

FORCES.

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

TOP CHORD 1-2=-336/207

WEBS 3-6=-348/173, 2-7=-321/214

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 13-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) 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) 5, 6, 7.
- 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.



August 9, 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

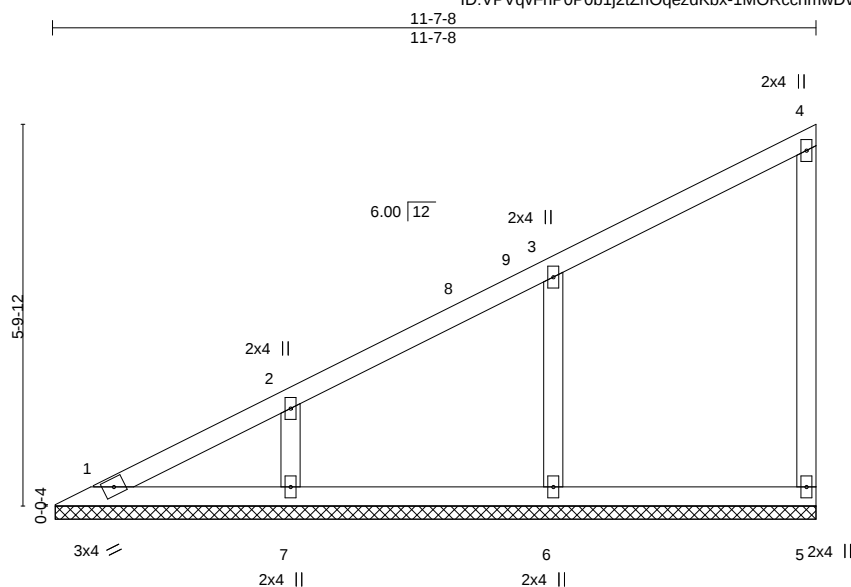
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	V3	Valley	1	1	147354499
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:59 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-1MORccnmwDvEUipJ81523jnlyUQm5riqUWD6mWyqUyE



Scale = 1:35.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.09	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 38 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 11-7-0.

(lb) - Max Horz 1=189(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 5, 6, 7

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=463(LC 18), 7=304(LC 1)

FORCES.

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

TOP CHORD 1-2=-287/182

WEBS 3-6=-378/196

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-8, Interior(1) 3-7-8 to 11-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) 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) 5, 6, 7.
- 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.



August 9, 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

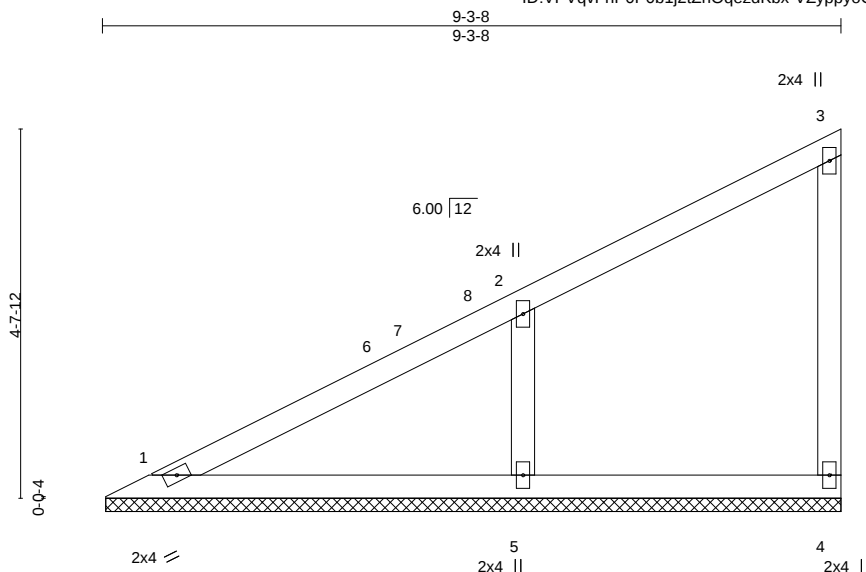
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2888681	Truss V4	Truss Type Valley	Qty 1	Ply 1	Summit/11 Hawthorn 147354500
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 18:00:00 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-VZyppyoOhW155szVhkdHcwJShulJqIL_jAyflyyqUyD



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr YES	WB 0.06	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S						Weight: 29 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=9-3-0, 4=9-3-0, 5=9-3-0
Max Horz 1=149(LC 11)
Max Uplift 4=-23(LC 11), 5=-75(LC 14)
Max Grav 1=150(LC 1), 4=167(LC 18), 5=535(LC 18)

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

WEBS 2-5=-424/236

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 9-1-12 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) 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) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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 2888681	Truss V5	Truss Type Valley	Qty 1	Ply 1	Summit/11 Hawthorn Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

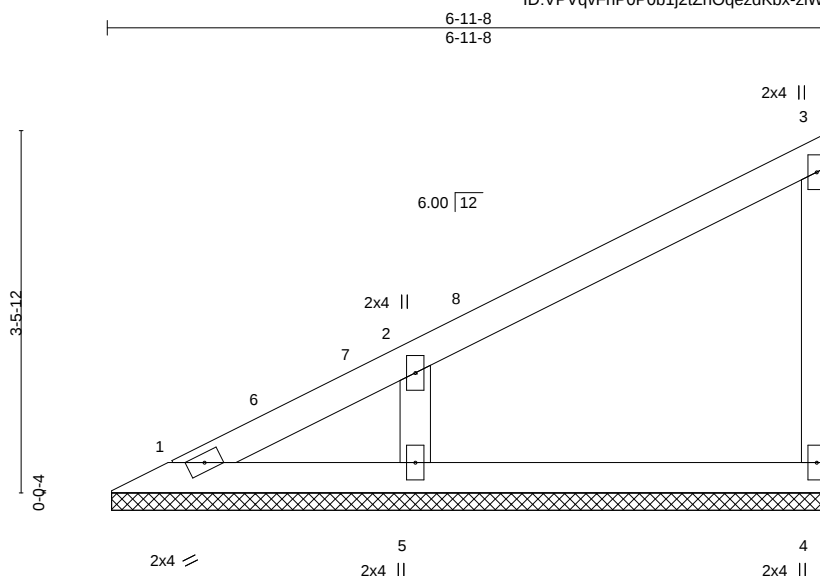
I47354501

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 18:00:01 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-zIWC1Io0Sq9yj?YiFR8W88seRI6LZlr7yqiCrPyqUyC



Scale = 1:22.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15	TC 0.24	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: 20 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-11-0, 4=6-11-0, 5=6-11-0
 Max Horz 1=108(LC 11)
 Max Uplift 4=-19(LC 11), 5=-58(LC 14)
 Max Grav 1=60(LC 22), 4=178(LC 18), 5=450(LC 18)

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

WEBS 2-5=-369/233

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) 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) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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

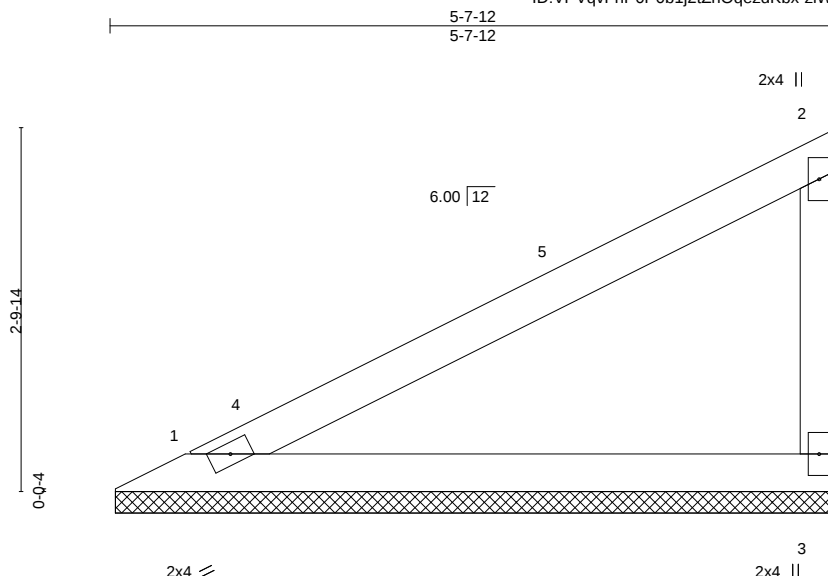
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	V6	Valley	1	1	I47354502
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 18:00:01 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-zlWC1lo0Sq9yj?YiFR8W88sYII41Zla7yqiCrPyqUyC



Scale = 1:17.9

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.61	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.25	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014								
								Weight: 15 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-7-4, 3=5-7-4
Max Horz 1=85(LC 13)
Max Uplift 1=-15(LC 14), 3=-21(LC 11)
Max Grav 1=275(LC 18), 3=275(LC 18)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



August 9, 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

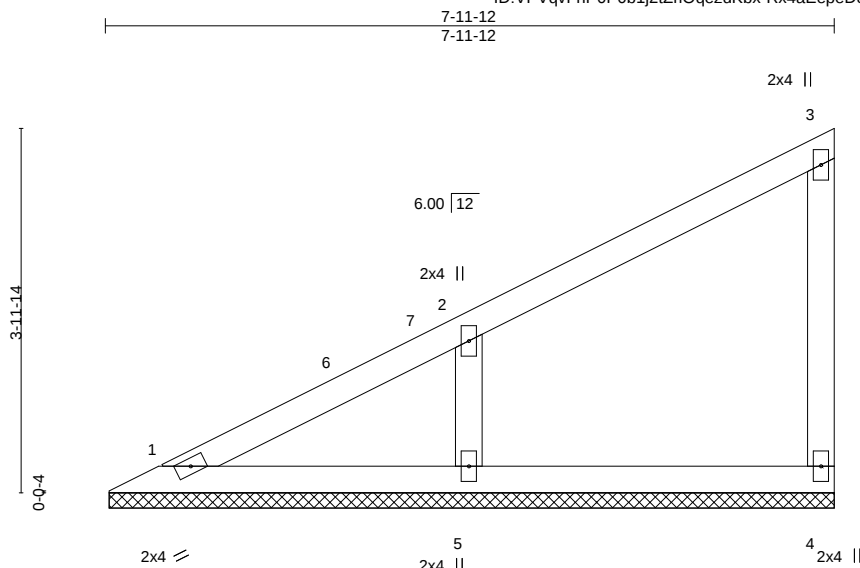
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	V7	Valley	1	1	147354503

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 18:00:02 2021 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-Rx4aEepeD8HpL97up9flhLPoxiSPICOGAURmNryqUyB



Scale = 1:25.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.26	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.15	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2018/TPI2014						Weight: 24 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=7-11-4, 4=7-11-4, 5=7-11-4
Max Horz 1=126(LC 11)
Max Uplift 4=-21(LC 11), 5=-64(LC 14)
Max Grav 1=102(LC 22), 4=174(LC 18), 5=483(LC 18)

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

WEBS 2-5=-393/232

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) 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) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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



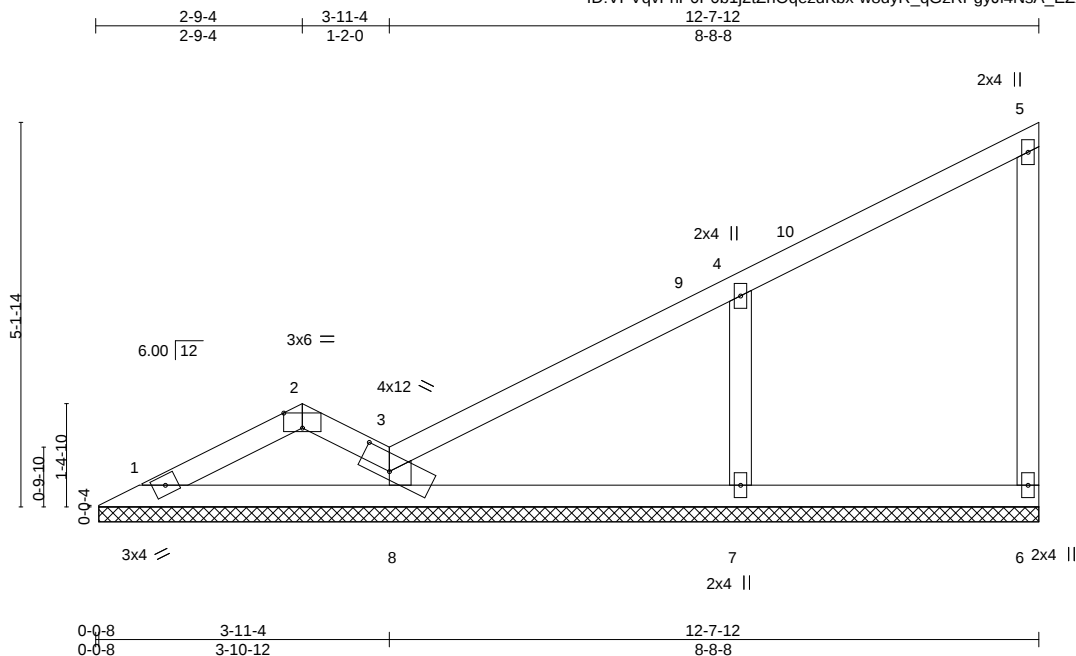
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2888681	Truss V8	Truss Type Valley	Qty 1	Ply 1	Summit/11 Hawthorn Job Reference (optional)	147354504
----------------	-------------	----------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 18:00:03 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-w8dyR_qGzRPgyJi4NsA_EZxye5oU1e2QP8BjvHyqUyA



Scale = 1:30.9

Plate Offsets (X, Y)-- [2:0-3-0,Edge], [3:0-5-0,0-2-12]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc) l/defl L/d
TCLL 20.0		Plate Grip DOL	1.15	TC 0.33		Vert(LL)	n/a - n/a 999
(Roof Snow=20.0)		Lumber DOL	1.15	BC 0.12		Vert(CT)	n/a - n/a 999
TCDL 10.0		Rep Stress Incr	YES	WB 0.07		Horz(CT)	-0.00 6 n/a n/a
BCLL 0.0		Code IRC2018/TPI2014		Matrix-S			
BCDL 10.0							
						PLATES	GRIP
						MT20	197/144
						Weight: 39 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 12-7-4.
(lb) - Max Horz 1=167(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 6, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 7=468(LC 34), 8=327(LC 34)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-7=-374/191, 3-8=-254/130

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-11-4, Interior(1) 3-11-4 to 12-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Provide adequate drainage to prevent water ponding.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7, 8.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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



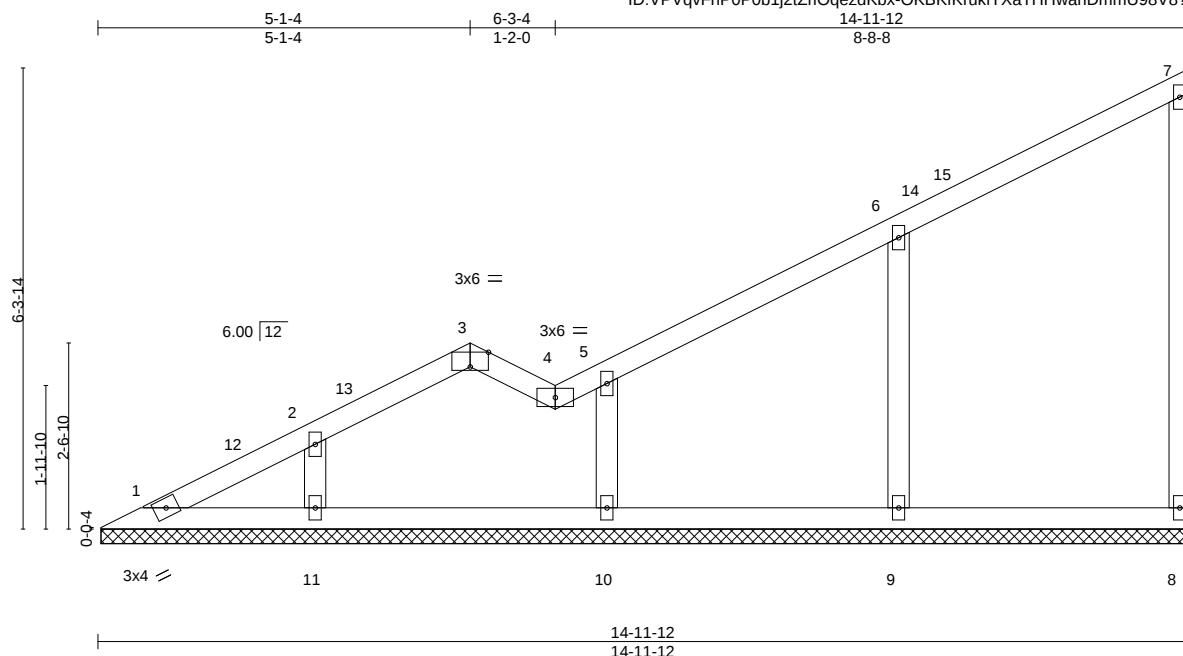
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354505
2888681	V9	Valley	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 18:00:04 2021 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-OKBKfKrukIYXaTHHwahDmmU98V8?m5iZeowsRkyqUy9



Scale = 1:31.6

Plate Offsets (X,Y)-- [3:0-3-0,Edge]		14-11-12		14-11-12	
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.21	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.10	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 50 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-11-4.
(lb) - Max Horz 1=207(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 9, 10, 11
Max Grav All reactions 250 lb or less at joint(s) 1, 8 except 9=436(LC 34), 10=381(LC 34), 11=389(LC 32)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-351/189
WEBS 6-9=-351/170, 5-10=-301/122, 2-11=-315/270

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-1-4, Exterior(2E) 5-1-4 to 6-3-4, Interior(1) 6-3-4 to 14-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 9, 10, 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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

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

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

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



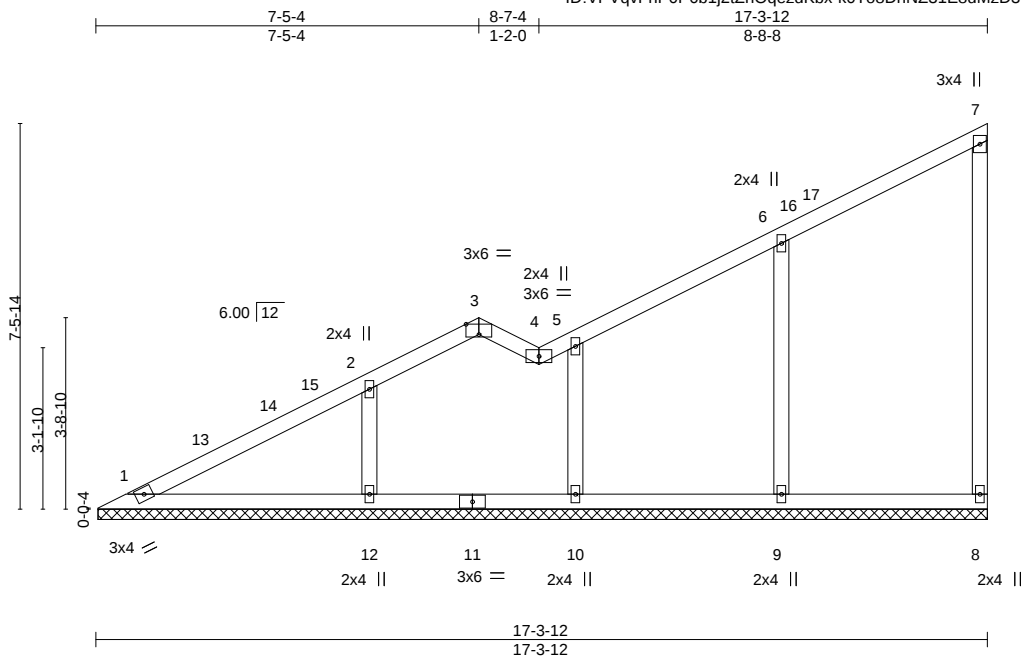
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	V10	Valley	1	1	147354506

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:52 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-k0To8DhNZ31E8dMzD3TPHE_3Lg0Xyfiotw0E0QyqUyL



Scale = 1:44.7

Plate Offsets (X,Y)-- [3:0-3:0,Edge]									
LOADING (psf)		SPACING		CSI		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	in (loc)	l/defl	MT20	GRIP
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.14	n/a	n/a		197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Vert(CT)	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S		Horz(CT)	-0.00 8 n/a n/a		
BCDL	10.0							Weight: 61 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 17-3-4.
(lb) - Max Horz 1=248(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 8, 9, 10, 12
Max Grav All reactions 250 lb or less at joint(s) 1, 8 except 9=444(LC 34), 10=357(LC 34), 12=544(LC 32)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-363/207
WEBS 6-9=-356/164, 5-10=-286/108, 2-12=-430/272

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-5-4, Exterior(2E) 7-5-4 to 8-7-4, Interior(1) 8-7-4 to 17-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 9, 10, 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.



August 9, 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

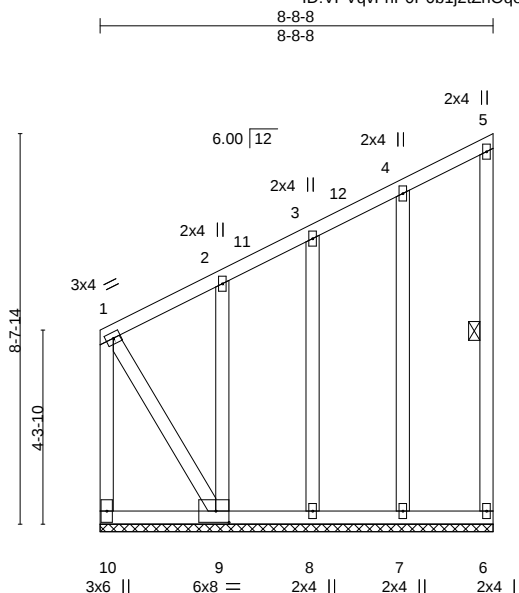


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	V11	Valley	1	1	147354507
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:53 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-CC1ALZi?KN95mnx9nm_eqSX8v3Njh5Ky6amnYsyqUyK



Scale = 1:51.1

Plate Offsets (X,Y)-- [9:0-3-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.73	Vert(LL)	n/a	-	n/a	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.21	Horz(CT)	-0.00	6	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 61 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, Except:
WEBS 8-0-1 oc bracing: 9-10.
1 Row at midpt 5-6

REACTIONS.

All bearings 8-8-8.
(lb) - Max Horz 10=279(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 6, 7, 8 except 10=-171(LC 12), 9=-299(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 6, 7, 8 except 10=355(LC 11), 9=354(LC 21)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-846/513, 1-2=-386/246, 2-3=-293/210
BOT CHORD 9-10=-553/416
WEBS 1-9=-535/867

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 8-6-12 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7, 8 except (jt=lb) 10=171, 9=299.
- 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.



August 9, 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

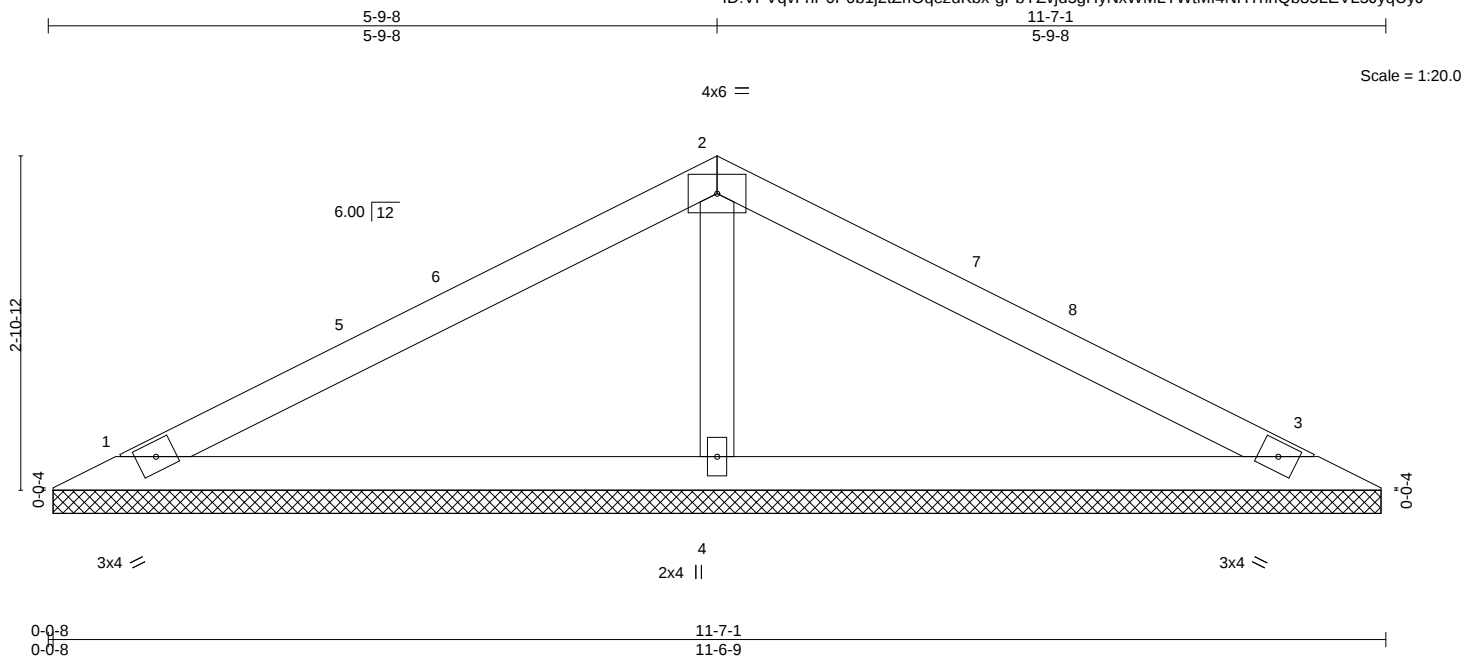
Job 2888681	Truss V17	Truss Type Valley	Qty 1	Ply 1	Summit/11 Hawthorn Job Reference (optional)	I47354508
----------------	--------------	----------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:54 2021 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-gPbYZvj5gHyNxWMLTWtMf4NHThnQb35LEVL5JyqUyJ



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	Plate Grip DOL 1.15	2-0-0	TC 0.49	Vert(LL) n/a	-	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.22	Vert(CT) n/a	-	-	n/a	999		
BCLL 0.0	Rep Stress Incr YES		WB 0.05	Horz(CT) 0.00	3		n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 29 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=11-6-1, 3=11-6-1, 4=11-6-1
Max Horz 1=-49(LC 12)
Max Uplift 1=-26(LC 14), 3=-26(LC 14), 4=-23(LC 14)
Max Grav 1=273(LC 18), 3=273(LC 19), 4=466(LC 19)

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

WEBS 2-4=-314/169

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-9-8, Exterior(2R) 5-9-8 to 8-9-8, Interior(1) 8-9-8 to 10-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 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.



August 9, 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



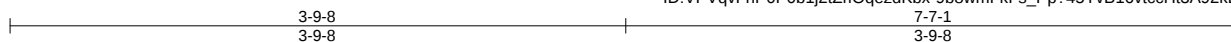
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn	147354509
2888681	V18	Valley	1	1	Job Reference (optional)	

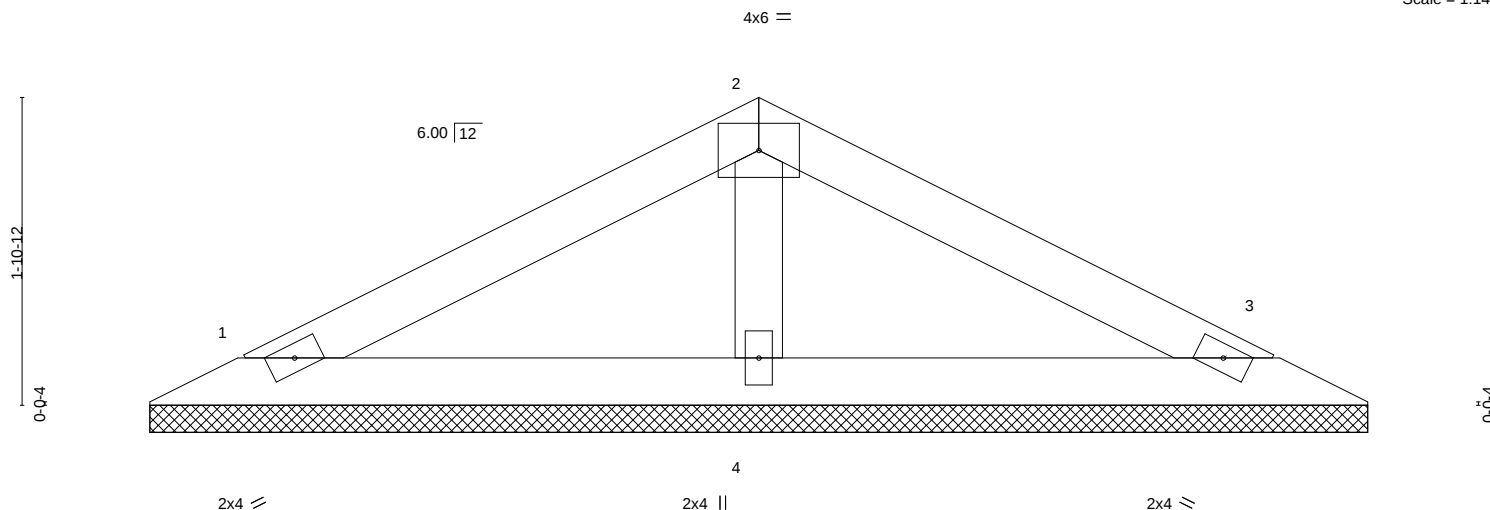
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:55 2021 Page 1
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-9b8wmFkFs_Pp?45YvB16vtccHt3A92kEZuFudlyqUyl



Scale = 1:14.2



0-0-8 0-0-8		7-7-1 7-6-9			
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.22	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.08	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.02	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 18 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=7-6-1, 3=7-6-1, 4=7-6-1
Max Horz 1=30(LC 13)
Max Uplift 1=-21(LC 14), 3=-21(LC 14), 4=-3(LC 14)
Max Grav 1=170(LC 18), 3=170(LC 19), 4=251(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 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.



August 9, 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

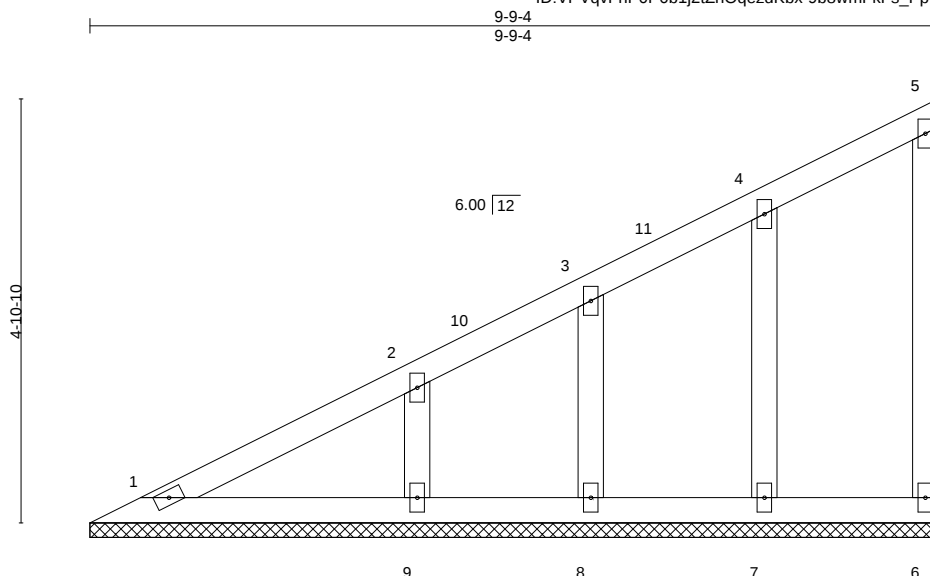
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	V19	Valley	1	1	I47354510
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:55 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-9b8wmFkFs_Pp?45YvB16vtceqt4W92LEZuFudlyqUyI



Scale = 1:26.5

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow=20.0)	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	6	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-S							
BCDL 10.0									Weight: 36 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 9-9-4.

(lb) - Max Horz 1=157(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 6, 7, 8, 9

Max Grav All reactions 250 lb or less at joint(s) 1, 6, 7, 8 except 9=268(LC 18)

FORCES.

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

TOP CHORD 1-2=-333/177

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-7-7 to 3-9-4, Exterior(2N) 3-9-4 to 9-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7, 8, 9.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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

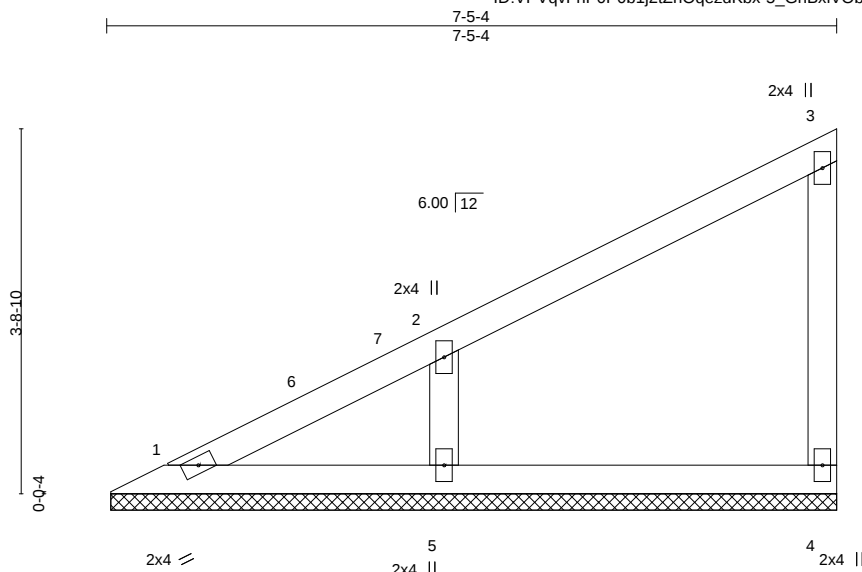
Job 2888681	Truss V20	Truss Type Valley	Qty 1	Ply 1	Summit/11 Hawthorn 147354511
----------------	--------------	----------------------	----------	----------	---------------------------------

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:57 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-5_GhBxIVObfWEOFw0c3a_lhyQhIPdypX1Ck?heyqUyG



Scale = 1:23.5

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	Plate Grip DOL 1.15	2-0-0	TC 0.24	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 0.05	Horz(CT) 0.00	4	-	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 22 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=7-4-12, 4=7-4-12, 5=7-4-12
Max Horz 1=116(LC 11)
Max Uplift 4=-20(LC 11), 5=-60(LC 14)
Max Grav 1=81(LC 22), 4=177(LC 18), 5=463(LC 18)

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

WEBS 2-5=-378/231

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-5-4, Interior(1) 3-5-4 to 7-3-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) 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) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 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

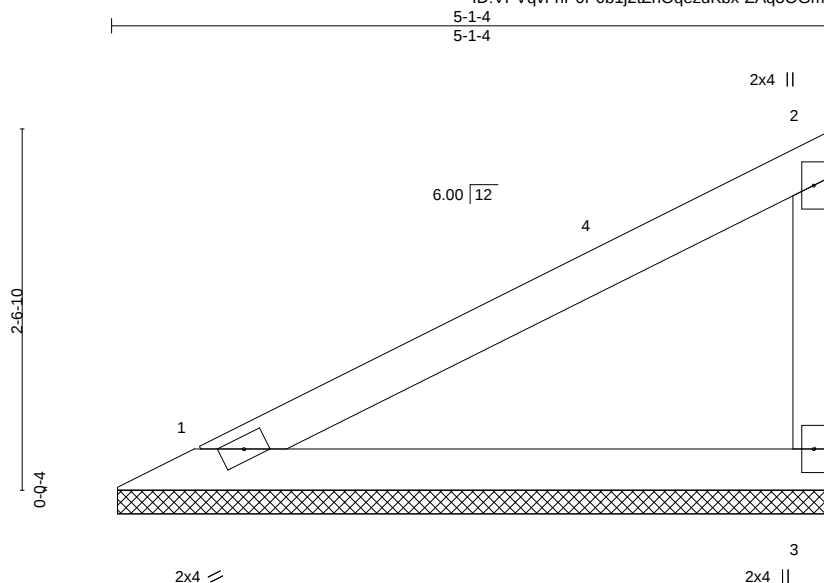
Job	Truss	Truss Type	Qty	Ply	Summit/11 Hawthorn
2888681	V21	Valley	1	1	147354512
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:58 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-ZAq3OGm79vnNsYq7aJapXVE3n44CMPqhFsTYE4yqUyF



Scale = 1:16.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.19	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014								
								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 5-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-0-12, 3=5-0-12
Max Horz 1=76(LC 13)
Max Uplift 1=-13(LC 14), 3=-19(LC 11)
Max Grav 1=241(LC 18), 3=241(LC 18)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



August 9, 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 2888681	Truss V22	Truss Type Valley	Qty 1	Ply 1	Summit/11 Hawthorn Job Reference (optional)	I47354513
----------------	--------------	----------------------	----------	----------	--	-----------

Builders FirstSource (Valley Center),

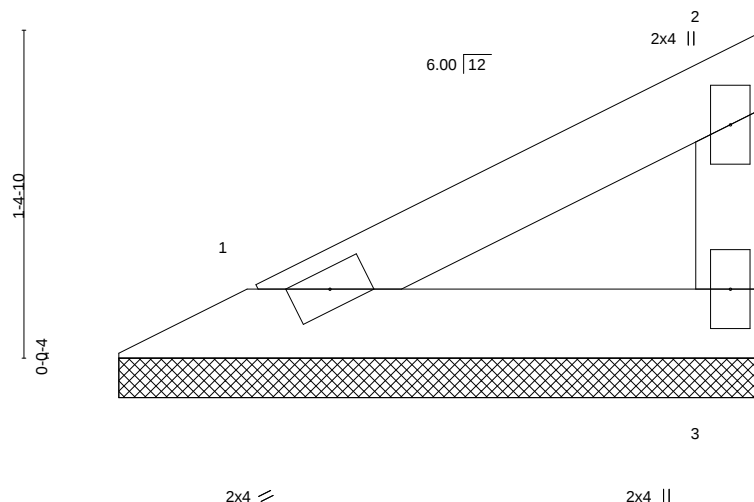
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 17:59:58 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-ZAq3OGm79vnNsYq7aJapXVE9o46dMPqhFsTYE4yqUyF

2-9-4
2-9-4

Scale = 1:9.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.04	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: 7 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-8-12, 3=2-8-12
Max Horz 1=35(LC 11)
Max Uplift 1=6(LC 14), 3=9(LC 11)
Max Grav 1=101(LC 18), 3=101(LC 18)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



August 9,2021

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

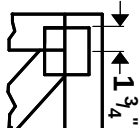
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



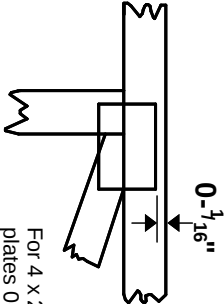
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.

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

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

PLATE SIZE

4 X 4

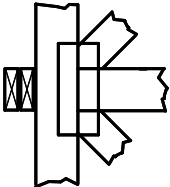
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



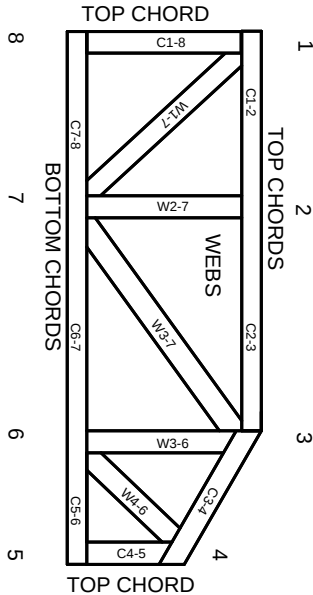
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

© 2012 MiTek® All Rights Reserved



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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 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.