



10/11/2021

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

Re: 2929204
Summit/155 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: I47924225 thru I47924276

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

Missouri COA: Engineering 001193



September 17, 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/155 Hawthorn
2929204	A1	Piggyback Base Supported Gable	1	1	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:20 2021 Page 1

ID:pEl2tSnelCAFSbWVgXHdMlzCDRM-vt?KgQGO697zOXq_1XNM1cTOWUsl9z61xwefARYdJ5C

10/11/2021

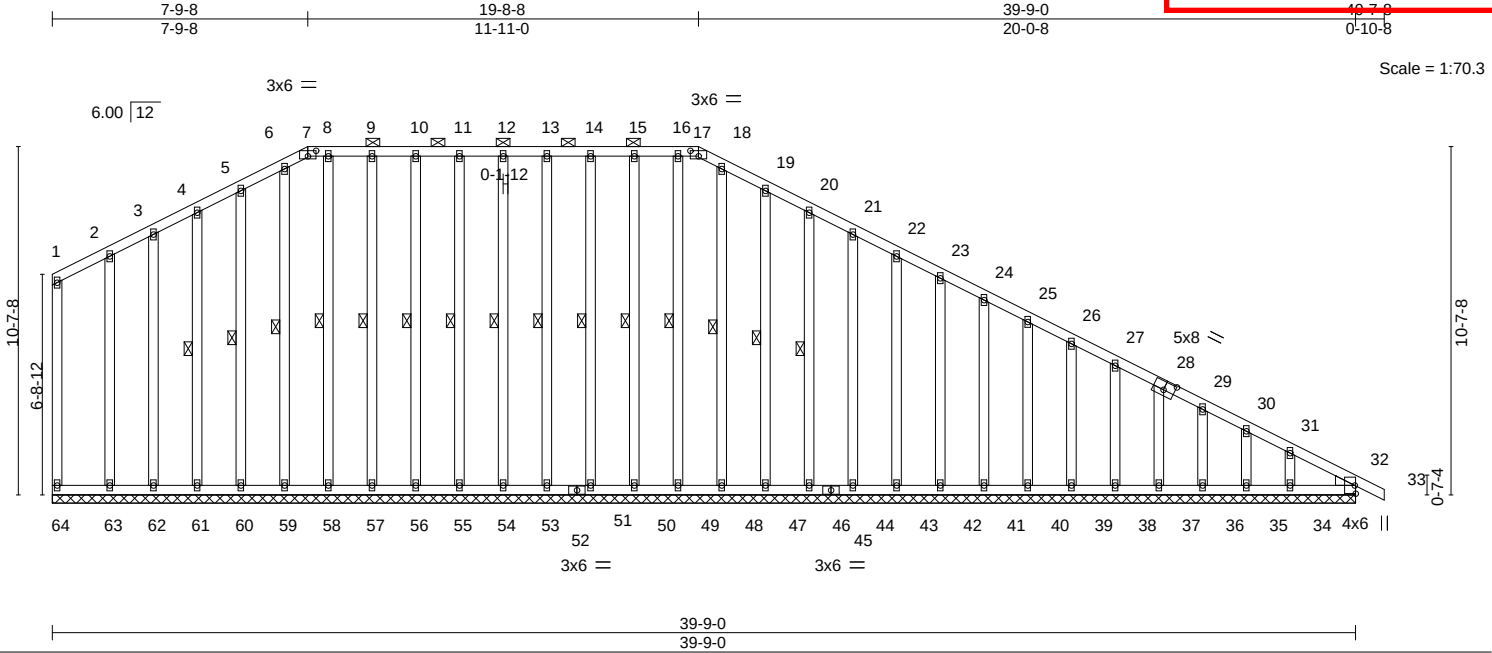


Plate Offsets (X,Y)-- [7:0-3-0,0-2-0], [17:0-3-0,0-2-0], [28:0-4-0,0-3-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.22	Vert(LL) -0.00	32	n/r	120		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.12	Vert(CT) -0.00	32	n/r	120			
BCLL 0.0	Rep Stress Incr YES		WB 0.10	Horz(CT) 0.02	32	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S							
									Weight: 341 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.): 7-17.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt
OTHERS 2x4 SPF No.2	
WEDGE	
Right: 2x4 SPF No.2	

REACTIONS. All bearings 39-9-0.
 (lb) - Max Horz 64=-322(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 64, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 32
 Max Grav All reactions 250 lb or less at joint(s) 64, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 32

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 5-6=-167/282, 6-7=-160/279, 7-8=-153/277, 8-9=-153/277, 9-10=-153/277, 10-11=-153/277, 11-12=-153/277, 12-13=-153/277, 13-14=-153/277, 14-15=-153/277, 15-16=-153/277, 16-17=-153/277, 17-18=-160/279, 18-19=-167/282, 30-31=-255/157, 31-32=-328/192
 BOT CHORD 63-64=-167/310, 62-63=-167/310, 61-62=-167/310, 60-61=-167/310, 59-60=-167/310, 58-59=-167/310, 57-58=-167/310, 56-57=-167/310, 55-56=-167/310, 54-55=-167/310, 53-54=-167/310, 51-53=-167/310, 50-51=-167/310, 49-50=-167/310, 48-49=-167/310, 47-48=-167/310, 46-47=-167/310, 44-46=-167/310, 43-44=-167/310, 42-43=-167/310, 41-42=-167/310, 40-41=-167/310, 39-40=-167/310, 38-39=-167/310, 37-38=-167/310, 36-37=-164/305, 35-36=-164/305, 34-35=-164/305, 32-34=-164/305

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 4-5-0, Exterior(2N) 4-5-0 to 7-9-8, Corner(3R) 7-9-8 to 11-9-3, Exterior(2N) 11-9-3 to 19-8-8, Corner(3R) 19-8-8 to 23-8-3, Exterior(2N) 23-8-3 to 40-7-8 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
 - 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.

Continued on page 2

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



September 17, 2021

MiTek®
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	A1	Piggyback Base Supported Gable	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:30 2021 Page 2
ID:pEI2tSneICAfSBwVgXHdMzCDRM-N3YitmH1tTFq0jBAbFubzc0BGuB_uQrAAaNojtydJ5B

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

10/11/2021

NOTES-

- 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) 64, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 32.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

 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

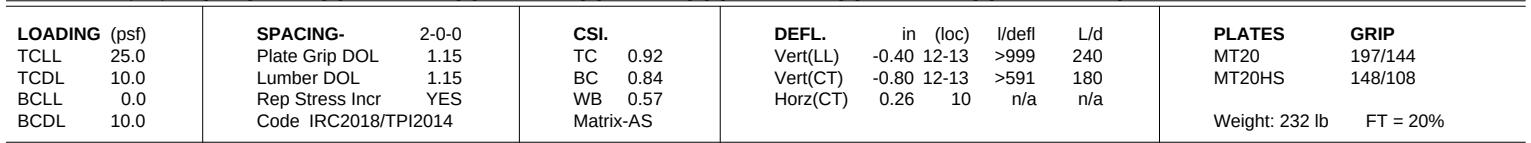


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:30 2021 Page 2

ID:PEl2tSneICAfSbWVgXHdMzCDRM-cob6nmrOgmEOYb3lvddYiRvuz6WwVVOVEU3mxSydJ52

7-9-8 12-11-14 18-2-4 19-8-8 25-3-8 30-10-8 36-5-8 36-5-8 30-8-8 18-7-8
7-9-8 5-2-6 5-2-6 1-6-4 5-7-0 5-7-0 5-7-0 3-3-8 0-10-8



REACTIONS. (size) 21=Mechanical, 10=0-3-8
 Max Horz 21=-324(LC 10)
 Max Uplift 21=-259(LC 12), 10=-358(LC 13)
 Max Grav 21=1782(LC 1), 10=1844(LC 1)

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-7, Interior(1) 4-1-7 to 7-9-8, Exterior(2R) 7-9-8 to 13-4-15, Interior(1) 13-4-15 to 19-8-8, Exterior(2R) 19-8-8 to 25-3-8, Interior(1) 25-3-8 to 40-7-8 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
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=259, 10=358.
- 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.



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Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	A3	PIGGYBACK BASE	4	1	

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

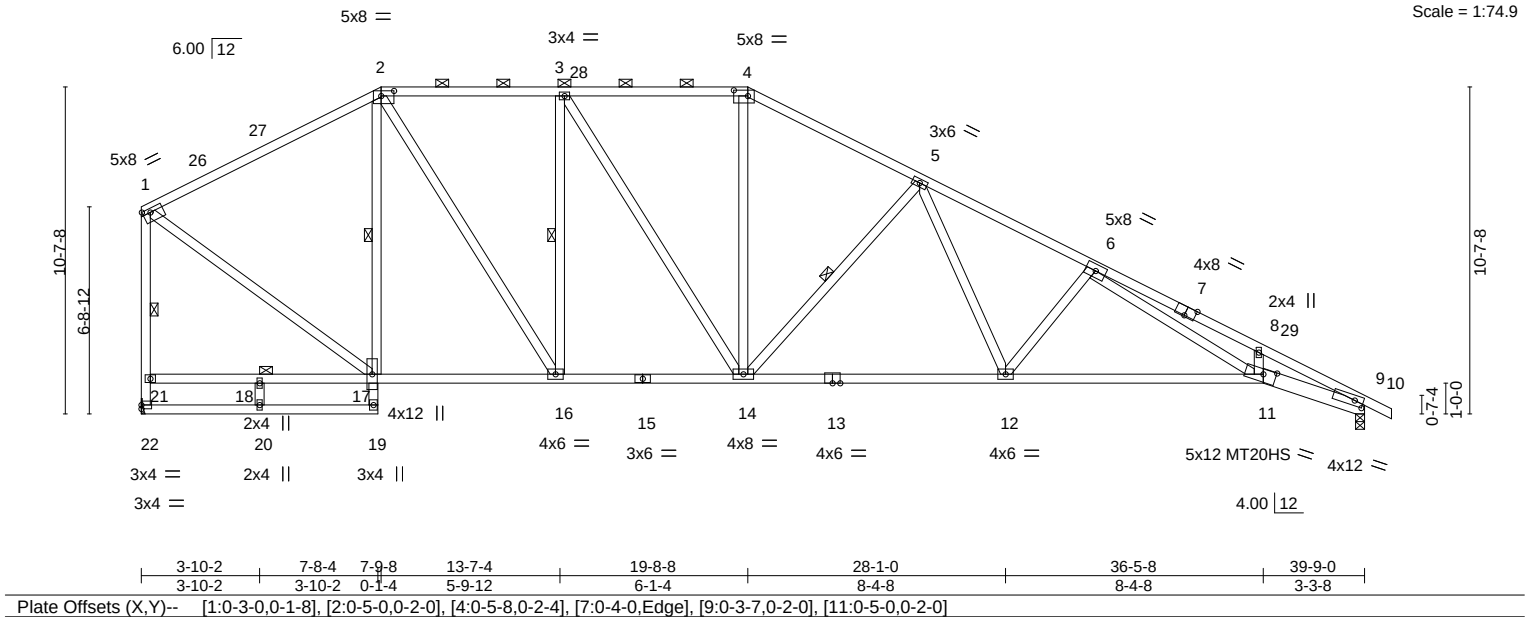
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:41 2021 Page 1

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Job Reference (optional)

7-9-8 13-7-4 19-8-8 25-3-8 30-10-8 36-5-8 39-9-0
7-9-8 5-9-12 6-1-4 5-7-0 5-7-0 5-7-0 3-3-8 0-10-8

Scale = 1:74.9



LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 1.00	Vert(LL) -0.35	11-12	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.81	Vert(CT) -0.72	11-12	>658	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr YES	WB 0.59	Horz(CT) 0.25	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS						
							Weight: 214 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF 1650F 1.5E *Except* 2-4: 2x4 SPF No.2, 7-10: 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-7-13 max.): 2-4.
BOT CHORD 2x4 SPF No.2 *Except* 9-11: 2x6 SPF 2100F 1.8E, 11-13: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 3-16, 5-14, 1-22, 2-17
	JOINTS 1 Brace at Jt(s): 18

REACTIONS.
(size) 22=Mechanical, 9=0-3-8 Max Horz 22=-324(LC 10) Max Uplift 22=-258(LC 12), 9=-359(LC 13) Max Grav 22=1780(LC 1), 9=1844(LC 1)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-1451/329, 2-3=-1724/424, 3-4=-1905/474, 4-5=-2215/485, 5-6=-3311/661, 6-8=-5999/1200, 8-9=-6114/1097, 21-22=-1730/329, 1-21=-1703/318 BOT CHORD 16-17=-85/1202, 14-16=-118/1724, 12-14=-261/2527, 11-12=-501/3350, 9-11=-935/5497 WEBS 3-16=-785/255, 3-14=-152/374, 4-14=-72/573, 5-14=-957/322, 5-12=-163/885, 6-12=-766/284, 6-11=-516/2402, 2-17=-709/208, 1-17=-210/1425, 2-16=-238/1058

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-7, Interior(1) 4-1-7 to 7-9-8, Exterior(2R) 7-9-8 to 13-7-4, Interior(1) 13-7-4 to 19-8-8, Exterior(2R) 19-8-8 to 25-3-8, Interior(1) 25-3-8 to 40-7-8 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
 - 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) 9 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) 22=258, 9=359.
 - This truss 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.



September 17, 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/155 Hawthorn
2929204	A5	Piggyback Base	2	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:42 2021 Page 1					
Job Reference (optional)					

1-10-8	7-2-0	11-2-4	15-2-8	21-2-0	27-1-8	34-0-0	41-2-0
1-10-8	7-2-0	4-0-4	4-0-4	5-11-8	5-11-8	6-10-8	7-2-0

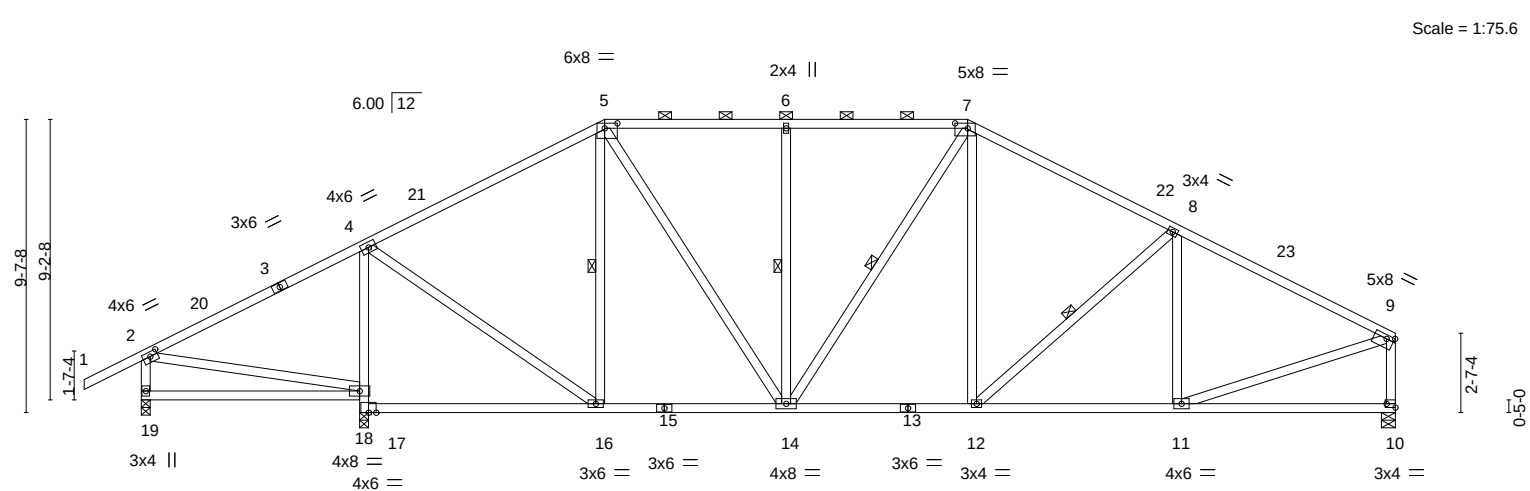


Plate Offsets (X,Y)--	[2:0-3-0,0-1-12], [5:0-5-0,0-2-0], [7:0-5-0,0-2-0], [9:0-3-0,0-1-8], [10:Edge,0-1-8]
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LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.61	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.67	Vert(LL) -0.09 16-17 >999 240		
BCLL 0.0	Rep Stress Incr YES	WB 0.36	Vert(CT) -0.18 16-17 >999 180		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.03 10 n/a n/a		
Weight: 208 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 (4-9-5 max.): 5-7.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 5-16, 6-14, 7-14, 8-12

REACTIONS.	(size) 19=0-3-8, 10=0-5-8, 17=0-3-8
	Max Horz 19=197(LC 11)
	Max Uplift 19=-59(LC 12), 10=-278(LC 13), 17=-368(LC 12)
	Max Grav 19=381(LC 25), 10=1490(LC 1), 17=1974(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	4-5=-1176/310, 5-6=-1296/377, 6-7=-1296/377, 7-8=-1591/376, 8-9=-1743/339, 2-19=-314/203, 9-10=-1420/302
BOT CHORD	17-18=-1900/398, 4-18=-1787/399, 14-16=-122/938, 12-14=-149/1312, 11-12=-255/1470
WEBS	4-16=-134/1227, 5-16=-550/139, 5-14=-166/734, 6-14=-450/191, 7-12=-55/340, 8-11=-326/136, 9-11=-222/1451

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 2-2-14, Interior(1) 2-2-14 to 15-2-8, Exterior(2R) 15-2-8 to 21-2-0, Interior(1) 21-2-0 to 27-1-8, Exterior(2R) 27-1-8 to 32-11-6, Interior(1) 32-11-6 to 41-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19 except (jt=lb) 10=278, 17=368.
 - This truss 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.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	A6	Piggyback Base	2	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:48 2021 Page 1
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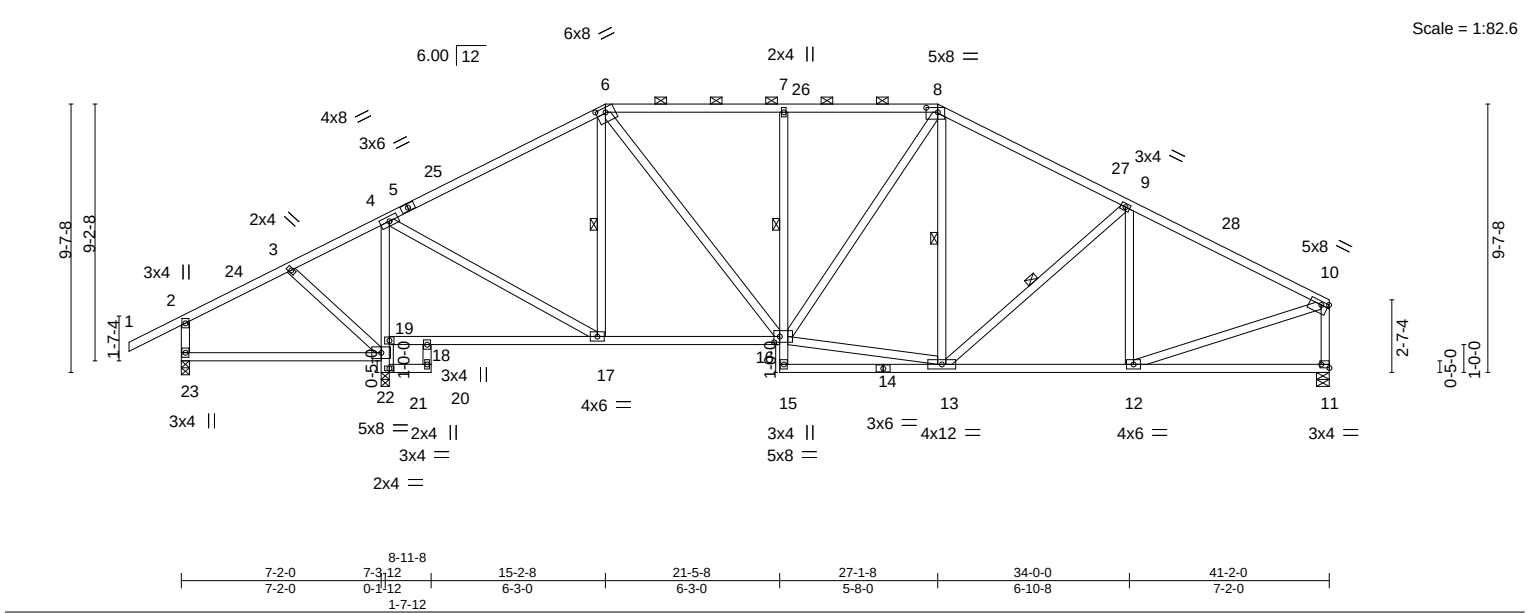


Plate Offsets (X,Y)-- [6:0-4-0,0-1-15], [8:0-5-0,0-2-0], [10:0-3-0,0-1-8], [11:Edge,0-1-8], [16:0-2-8,0-2-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.08	7	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.16	16-17	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.04	11	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 210 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 (4-4-3 max.): 6-8.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied. Except:
WEBS 2x4 SPF No.2	1 Row at midpt 7-16
	WEBS 1 Row at midpt 6-17, 8-13, 9-13

REACTIONS. (size) 23=0-3-8, 11=0-5-8, 21=0-3-8
Max Horz 23=197(LC 11)
Max Uplift 23=-97(LC 12), 11=-280(LC 13), 21=-321(LC 12)
Max Grav 23=365(LC 25), 11=1490(LC 1), 21=1975(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-6=-1297/312, 6-7=-1464/390, 7-8=-1457/391, 8-9=-1592/382, 9-10=-1743/344, 2-23=-297/201, 10-11=-1419/305
BOT CHORD 21-22=-1912/341, 19-22=-1721/310, 4-19=-1692/323, 16-17=-175/1051, 7-16=-449/191, 12-13=-259/1471
WEBS 4-17=-119/1295, 6-17=-500/126, 6-16=-173/744, 13-16=-160/1270, 8-16=-143/390, 9-12=-326/137, 10-12=-226/1452

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 2-2-14, Interior(1) 2-2-14 to 15-2-8, Exterior(2R) 15-2-8 to 21-0-6, Interior(1) 21-0-6 to 27-1-8, Exterior(2R) 27-1-8 to 32-11-6, Interior(1) 32-11-6 to 41-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 21 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) 23 except (jt=lb) 11=280, 21=321.
 - This truss 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.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	A7	PIGGYBACK BASE	2	1	
Job Reference (optional)					

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:44 2021 Page 1

ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-zmP?pYSpam0riqF3PB8t8Z6SGXpCAgdeOmmyB3ydJ4z

1-10-8	7-2-0	15-2-8	23-3-12	27-1-8	34-0-0	41-2-0
1-10-8	7-2-0	8-0-8	8-1-4	3-9-12	6-10-8	7-2-0

Scale = 1:77.4

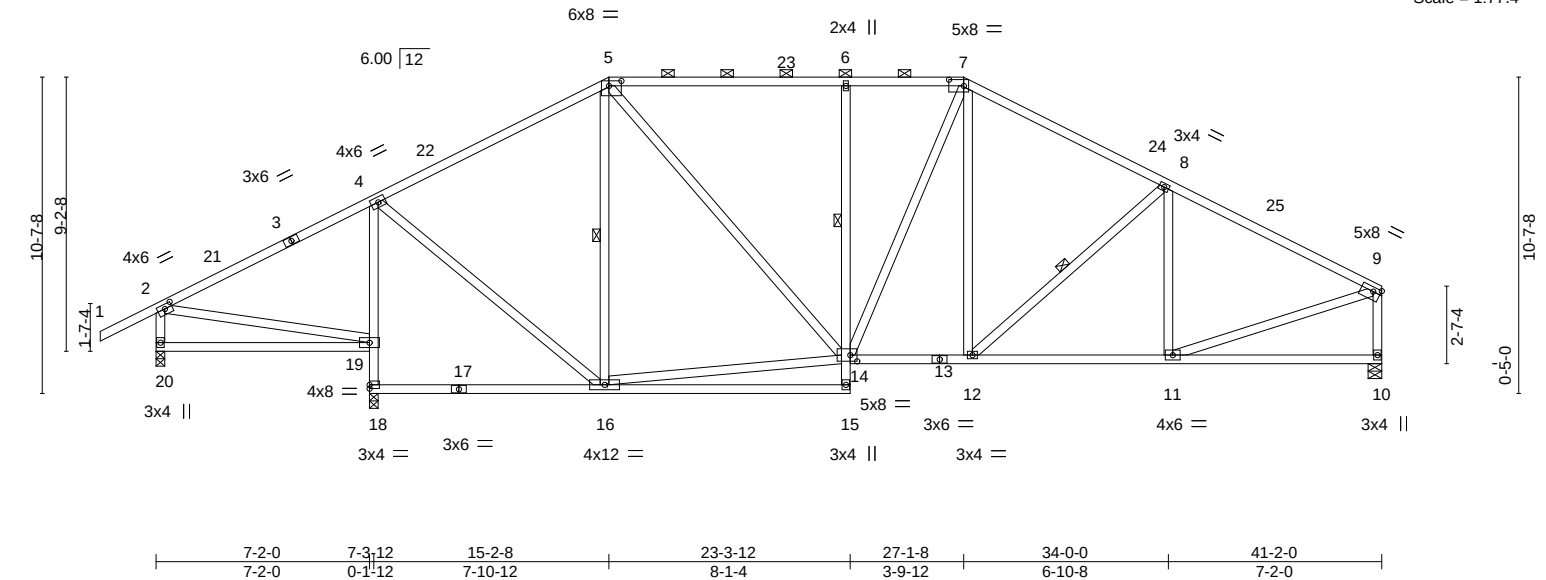


Plate Offsets (X,Y)--		[2:0-3-0,0-1-12], [5:0-5-0,0-2-0], [7:0-6-0,0-2-8], [9:Edge,0-1-12], [14:0-2-12,0-2-8]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 10.0	Lumber DOL	1.15
BCLL 0.0	Rep Stress Incr	YES
BCDL 10.0	Code	IRC2018/TPI2014
CSI.	TC	0.76
DEFL.	BC	0.77
in (loc)	WB	0.47
l/defl	Matrix-MS	
L/d		
PLATES	GRIP	
MT20	197/144	
Weight: 221 lb	FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-7: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-7 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
4-2-5 oc bracing: 18-19
6-0-0 oc bracing: 16-18.
1 Row at midpt 6-14
WEBS 1 Row at midpt 5-16, 8-12

REACTIONS.

(size) 20=0-3-8, 18=0-3-8, 10=0-5-8
Max Horz 20=197(LC 11)
Max Uplift 20=-92(LC 8), 18=-367(LC 12), 10=-287(LC 13)
Max Grav 20=413(LC 25), 18=1912(LC 1), 10=1501(LC 1)

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

TOP CHORD 4-5=-1102/331, 5-6=-1368/407, 6-7=-1362/404, 7-8=-1606/391, 8-9=-1760/352,
2-20=-344/244, 9-10=-1435/311
BOT CHORD 18-19=-1847/393, 4-19=-1750/393, 6-14=-506/214, 12-14=-149/1318, 11-12=-268/1490
WEBS 5-16=-651/168, 14-16=-121/802, 5-14=-175/802, 7-14=-130/291, 7-12=-62/324,
8-11=-334/144, 9-11=-241/1497, 4-16=-119/1144

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 2-2-14, Interior(1) 2-2-14 to 15-2-8, Exterior(2R) 15-2-8 to 21-0-6, Interior(1) 21-0-6 to 27-1-8, Exterior(2R) 27-1-8 to 32-11-6, Interior(1) 32-11-6 to 41-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 20 except (jt=lb) 18=367, 10=287.
- This truss 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.



September 17, 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

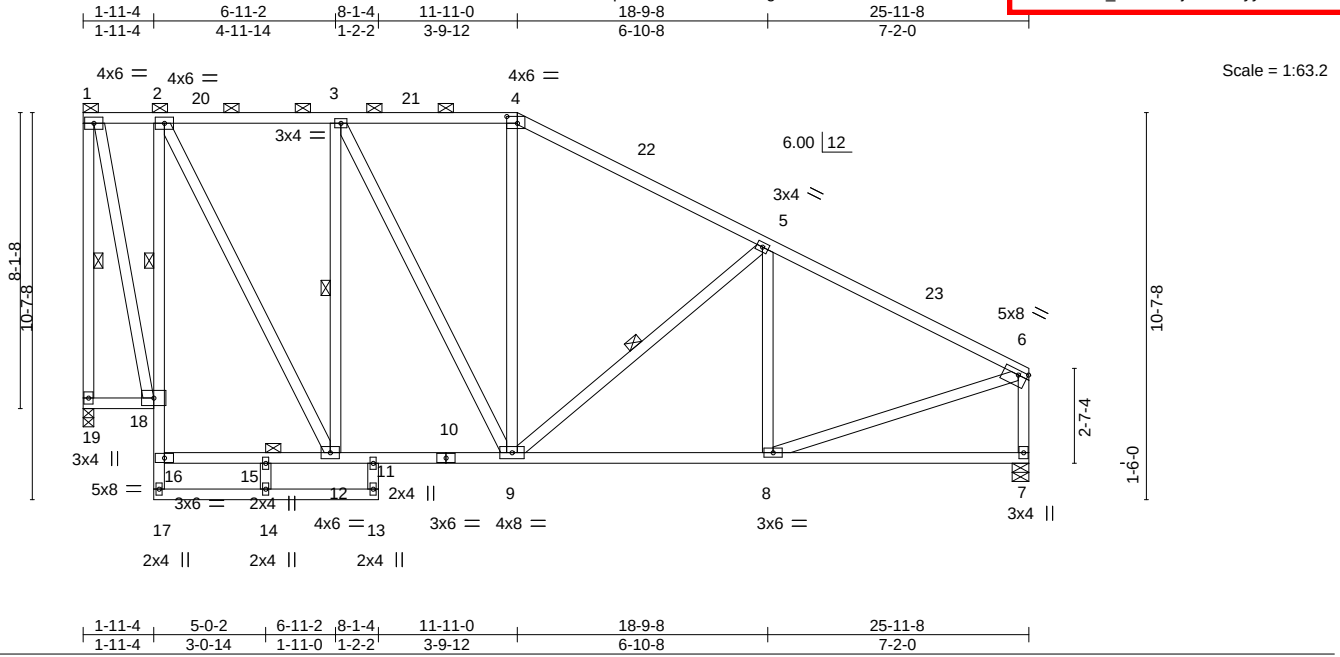


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	A8	Piggyback Base	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:45 2021 Page 1					
ID: pEI2tSnelCAFSbWVgXHdMlzCDRM-v8WIEET36OGz8PFxcALD_hsrkareaxi4PcSyjd4x					
Job Reference (optional)					

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

10/11/2021



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.06	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.13				
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.06				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 169 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 (6-0-0 max.): 1-4.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied. Except:
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 2-18
		JOINTS	1 Row at midpt 1-19, 5-9, 3-12
			1 Brace at Jt(s): 1, 15

REACTIONS.	
(size)	19=0-3-8, 7=0-5-8
Max Horz	19=-355(LC 8)
Max Uplift	19=-251(LC 8), 7=-189(LC 13)
Max Grav	19=1155(LC 1), 7=1155(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-19=-1029/327, 1-2=-266/181, 2-3=-639/260, 3-4=-806/291, 4-5=-1023/284, 5-6=-1299/247, 6-7=-1087/228
BOT CHORD	18-19=-265/411, 2-18=-992/371, 15-16=-132/414, 12-15=-132/414, 11-12=-126/700, 9-11=-95/639, 8-9=-189/1074
WEBS	1-18=-364/1009, 3-9=-166/363, 5-9=-351/202, 6-8=-152/1040, 3-12=-683/242, 2-12=-256/845

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 11-11-0, Exterior(2R) 11-11-0 to 14-11-0, Interior(1) 14-11-0 to 25-9-12 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) Provide adequate drainage to prevent water ponding.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=251, 7=189.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



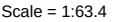
September 17, 2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:47 2021 Page 1

ID: pEI2tSnelCAFSbWvgXhDmLzCDPRM-NL48SaUthnOQZR5JhaBb1Kw7N_Wg4k?CooYdJ4w

4-2-6 5-11-8 8-1-4 11-11-0 18-9-8 25-11-8

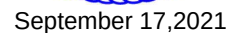
4-2-6 1-9-2 2-1-12 3-9-12 6-10-8 7-2-0



REACTIONS. (size) 16=0-3-8, 6=0-5-8
 Max Horz 16=-409(LC 10)
 Max Uplift 16=-288(LC 8), 6=-183(LC 13)
 Max Grav 16=1155(LC 1), 6=1155(LC 1)

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 11-11-0, Exterior(2R) 11-11-0 to 14-11-0, Interior(1) 14-11-0 to 25-9-12 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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=288, 6=183.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 7) 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/155 Hawthorn
2929204	A10	Piggyback Base	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:31 2021 Page 1					
ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-rG6456lfenNheqnm9yPqpbZbghOdmKPL7MFJyJdJA					
Job Reference (optional)					

10/11/2021

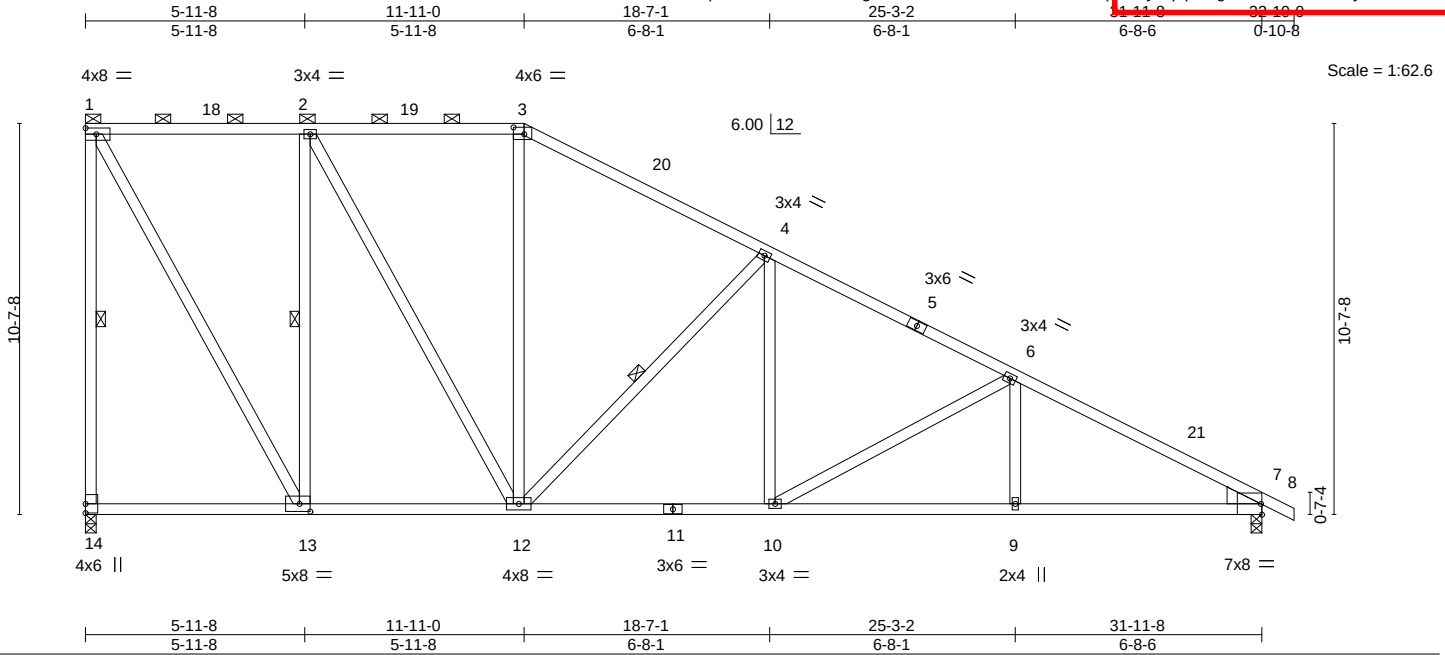


Plate Offsets (X,Y)--		[3:0-3-8,0-2-4], [13:0-3-8,0-2-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.82		Vert(LL)	-0.13 9-10 >999 240	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.70		Vert(CT)	-0.25 9-10 >999 180		
BCLL 0.0		Rep Stress Incr	YES	WB 0.77		Horz(CT)	0.07 7 n/a n/a		
BCDL 10.0		Code	IRC2018/TPI2014	Matrix-AS				Weight: 170 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 (5-4-7 max.): 1-3.
BOT CHORD 2x4 SPF No.2		BOT CHORD	Rigid ceiling directly applied.
WEBS 2x4 SPF No.2		WEBS	1 Row at midpt 1-14, 2-13, 4-12
WEDGE			
Right: 2x6 SPF No.2			

REACTIONS. (size) 14=0-3-8, 7=0-3-8
Max Horz 14=-435(LC 10)
Max Uplift 14=-294(LC 8), 7=-271(LC 13)
Max Grav 14=1431(LC 1), 7=1494(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-1376/317, 1-2=-686/275, 2-3=-1039/328, 3-4=-1276/328, 4-6=-1933/365, 6-7=-2479/433
BOT CHORD 13-14=-265/444, 12-13=-25/691, 10-12=-107/1642, 9-10=-286/2124, 7-9=-286/2124
WEBS 1-13=-313/1381, 2-13=-1084/353, 2-12=-224/720, 4-12=-866/309, 4-10=-48/462, 6-10=-549/221

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-4-2, Interior(1) 3-4-2 to 11-11-0, Exterior(2R) 11-11-0 to 15-1-6, Interior(1) 15-1-6 to 32-10-0 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) Provide adequate drainage to prevent water ponding.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=294, 7=271.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 2021

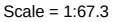
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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 Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 08:07:32 2021 Page 1
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LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 5-8: 2x6 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-4-7 max.): 1-3.
BOT CHORD	2x4 SPF No.2 *Except* 6-11: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 1-16, 2-14, 3-13
OTHERS	2x6 SPF 2100F 1.8E		
LBR SCAB	5-8 2x6 SPF 2100F 1.8E one side		
WEDGE			
Right: 2x4 SP No.3			

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

TOP CHORD 1-16=-1376/317, 1-2=-687/275, 2-3=-1033/327, 3-4=-2057/503, 4-5=-2084/368,
5-6=-2930/474, 6-7=-731/161

BOT CHORD 14-16=-267/447, 13-14=-24/692, 4-11=-397/242, 10-11=-317/2721, 6-10=-321/2720

WEBS 1-14=-314/1382, 2-14=-1086/355, 2-13=-221/715, 3-13=-666/206, 11-13=0/949,
3-11=-359/1359, 5-11=-1082/288

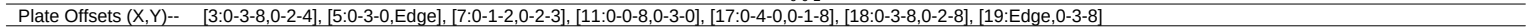
NOTES-

- 1) Attached 10-3-3 scab 5 to 8, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-8 from end at joint 5, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 5-7-15 from end at joint 5, nail 2 row(s) at 4" o.c. for 4-4-13.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-4-2, Interior(1) 3-4-2 to 11-11-0, Exterior(2R) 11-11-0 to 15-1-6, Interior(1) 15-1-6 to 32-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) 16=294, 7=271.
- 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.



September 17, 2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:33 2021 Page 1
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LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 5-8: 2x6 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-1-2 max.): 1-3.
BOT CHORD	2x4 SPF No.2 *Except* 6-12: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 1-23, 2-18, 4-16
OTHERS	2x6 SPF 2100F 1.8E	JOINTS	1 Brace at Jt(s): 1, 21
LBR SCAB	5-8 2x6 SPF 2100F 1.8E one side		
WEDGE			
Right: 2x4 SP No.3			

REACTIONS. (size) 23=0-3-8, 7=0-3-8
 Max Horz 23=-436(LC 10)
 Max Uplift 23=-295(LC 8), 7=-272(LC 13)
 Max Grav 23=1430(LC 1), 7=1492(LC 1)

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

TOP CHORD	22-23=-1390/299, 1-22=-1371/262, 1-2=-758/259, 2-3=-1148/327, 3-4=-1377/331, 4-5=-2101/370, 5-6=-2918/475, 6-7=-730/161
BOT CHORD	20-23=-266/360, 19-20=-266/360, 21-22=-220/319, 18-21=-220/319, 17-18=-86/751, 16-17=-19/758, 15-16=-98/1785, 11-15=-87/1759, 10-11=-318/2710, 6-10=-321/2709
WEBS	3-16=-4/268, 2-18=-1086/308, 1-18=-250/1411, 4-11=-85/600, 4-16=-939/308, 5-11=-1054/285, 2-16=-195/739

NOTES-

- 1) Attached 10-3-3 scab 5 to 8, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0'-0-8 from end at joint 5, nail 2 row(s) at 7" o.c. for 2'-0-0; starting at 5'-7-15 from end at joint 5, nail 2 row(s) at 4" o.c. for 4'-4-13.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-4-2, Interior(1) 3-4-2 to 11-11-0, Exterior(2R) 11-11-0 to 15-1-6 , Interior(1) 15-1-6 to 32-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) 23=295, 7=272.
- 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.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	A13	Piggyback Base	3	1	
Job Reference (optional)					

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:35 2021 Page 1

ID: pEI2tSneICAFSbWVGXHdMlzCDRM-k1MbWTL9i?76S37OoTmGpXvjeZvGvKS5ZC4yJ56

10/11/2021

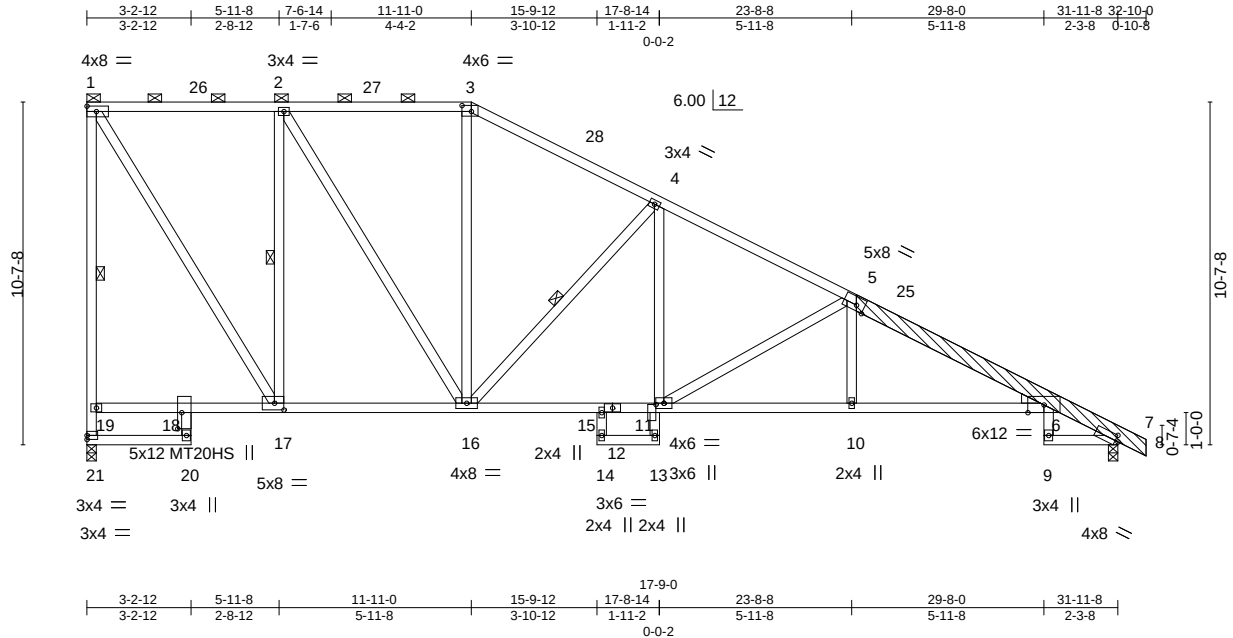


Plate Offsets (X,Y)-- [3:0-3-8,0-2-4], [5:0-3-0,Edge], [7:0-1-2,0-2-3], [11:0-0-8,0-3-0], [17:0-3-8,0-2-8], [18:0-6-0,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.69	Vert(LL)	-0.33	6-10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.61	6-10	>626	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.86	Horz(CT)	0.31	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 196 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 21=0-3-8, 7=0-3-8
 Max Horz 21=-436(LC 10)
 Max Uplift 21=-295(LC 8), 7=-272(LC 13)
 Max Grav 21=1430(LC 1), 7=1492(LC 1)

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

TOP CHORD 19-21=-1392/260, 1-19=-1372/274, 1-2=-759/267, 2-3=-1148/325, 3-4=-1377/329,
 4-5=-2102/370, 5-6=-2918/476, 6-7=-730/161
 BOT CHORD 20-21=-317/433, 18-19=-261/338, 17-18=-250/436, 16-17=-28/769, 15-16=-99/1785,
 11-15=-89/1759, 10-11=-318/2710, 6-10=-321/2709
 WEBS 2-16=-246/736, 3-16=-5/268, 2-17=-1084/363, 1-17=-240/1412, 4-11=-82/601,
 5-11=-1054/285, 4-16=-939/306

NOTES-

- Attached 10-3-3 scab 5 to 8, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-8 from end at joint 5, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 5-7-15 from end at joint 5, nail 2 row(s) at 4" o.c. for 4-4-13.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-4-2, Interior(1) 3-4-2 to 11-11-0, Exterior(2R) 11-11-0 to 15-1-6, Interior(1) 15-1-6 to 32-10-0 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
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=295, 7=272.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 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/155 Hawthorn
2929204	A14	PIGGYBACK BASE	1	1	

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

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:35 2021 Page 1
ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-CDwz8pMnTJ?	beKxV?ptG33i3atlnSfWq6wXydJ55	147924237

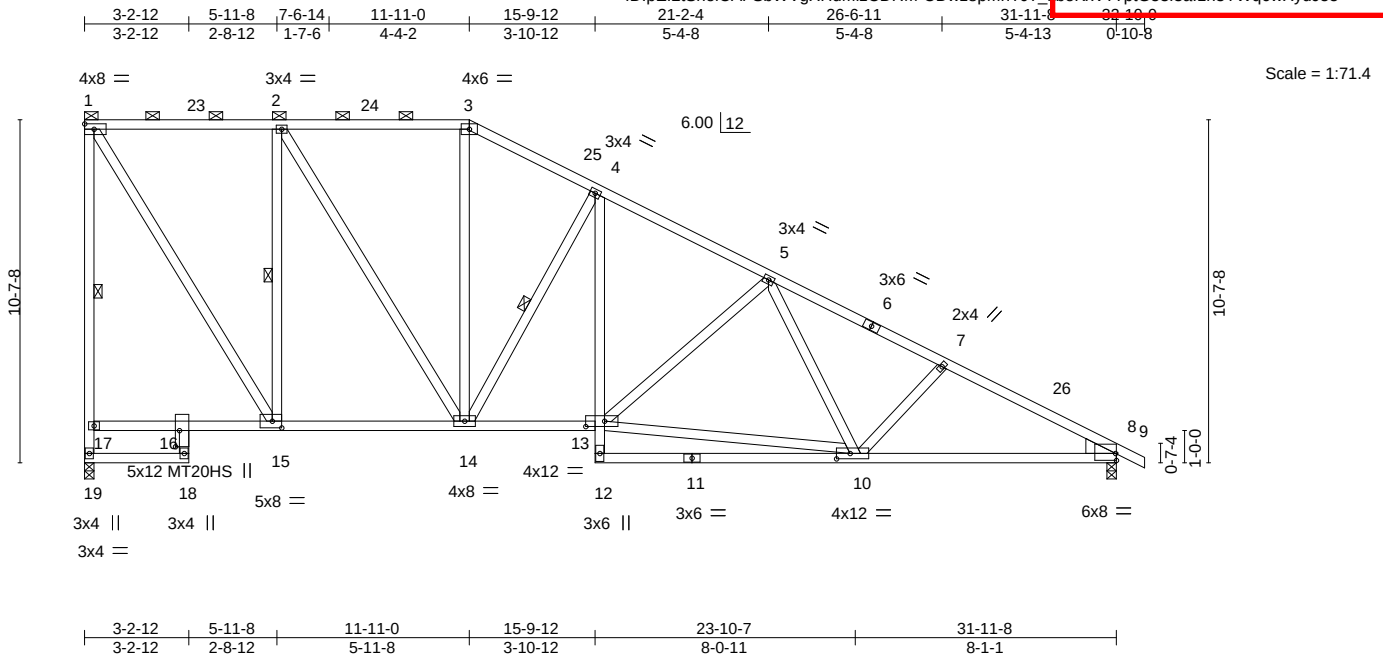


Plate Offsets (X,Y)--		[8:Edge,0-2-9], [10:0-5-1,0-2-0], [13:0-7-0,0-2-0], [15:0-3-8,0-2-8], [16:0-6-0,0-1-8]
LOADING (psf)	SPACING-	CSL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.71
TCDL 10.0	Lumber DOL 1.15	BC 0.82
BCLL 0.0	Rep Stress Incr YES	WB 0.53
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS
		DEFL.
		in (loc) l/defl L/d
		Vert(LL) -0.14 10-12 >999 240
		Vert(CT) -0.33 10-12 >999 180
		Horz(CT) 0.10 8 n/a n/a
		PLATES
		MT20 197/144
		MT20HS 148/108
		Weight: 185 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-11-11 max.): 1-3.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 1-19, 4-14, 2-15
WEDGE	
Right: 2x6 SPF No.2	

REACTIONS.	(size) 19=0-3-8, 8=0-3-8
	Max Horz 19=-435(LC 10)
	Max Uplift 19=-294(LC 8), 8=-271(LC 13)
	Max Grav 19=1431(LC 1), 8=1494(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	17-19=-1395/263, 1-17=-1375/276, 1-2=-762/269, 2-3=-1142/323, 3-4=-1343/336, 4-5=-1840/361, 5-7=-2285/433, 7-8=-2506/453
BOT CHORD	18-19=-317/423, 16-17=-267/351, 15-16=-248/432, 14-15=-30/771, 13-14=-58/1572, 4-13=-135/645, 8-10=-318/2158
WEBS	3-14=-45/294, 4-14=-871/291, 10-13=-187/1770, 5-13=-475/234, 5-10=-39/260, 7-10=-270/180, 2-15=-1091/363, 1-15=-251/1425, 2-14=-240/719

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-4-2, Interior(1) 3-4-2 to 11-11-0, Exterior(2R) 11-11-0 to 15-1-6, Interior(1) 15-1-6 to 32-10-0 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) Provide adequate drainage to prevent water ponding.
 - 3) All plates are MT20 plates unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=294, 8=271.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17,2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	A15	Piggyback Base Supported Gable	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:38 2021 Page 1

ID:pEI2tSneICAFSbWVgXHdMizCDRM-8c1kZVN2?wGhvo13w1Tolr66Bm2pm0qJ5?PydJ55

10/11/2021

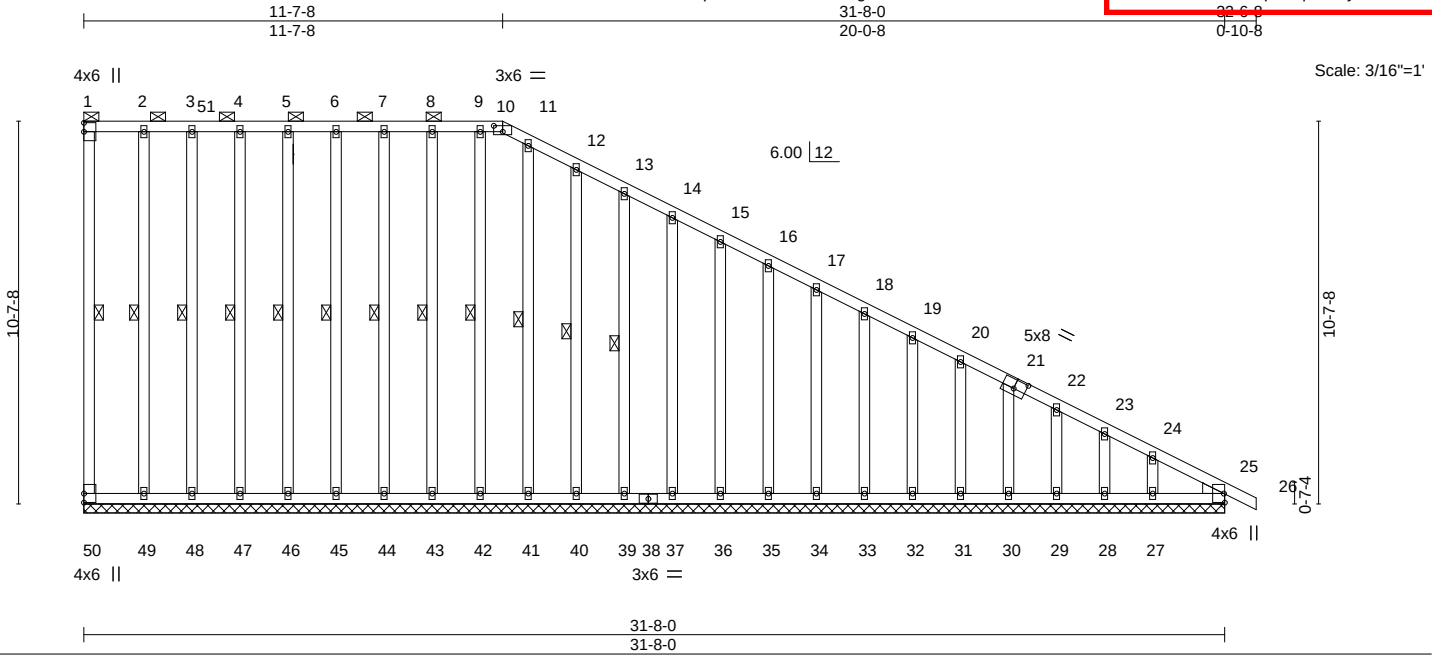


Plate Offsets (X,Y)-- [10:0-3-0,0-2-0], [21:0-4-0,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	0.00	25	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	0.00	25	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.02	25	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S							
									Weight: 266 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-10.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 1-50, 2-49, 3-48, 4-47, 5-46, 6-45, 7-44, 8-43, 9-42, 11-41, 12-40, 13-39

REACTIONS.

All bearings 31-8-0.
 (lb) - Max Horz 50=-433(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 25 except 27=-101(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 25

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 15-16=-276/193, 16-17=-310/204, 17-18=-343/216, 18-19=-377/228, 19-20=-411/240, 20-21=-445/252, 21-22=-479/261, 22-23=-504/269, 23-24=-538/280, 24-25=-628/323
 BOT CHORD 49-50=-277/563, 48-49=-277/563, 47-48=-277/563, 46-47=-277/563, 45-46=-277/563, 44-45=-277/563, 43-44=-277/563, 42-43=-277/563, 41-42=-277/563, 40-41=-277/563, 39-40=-277/563, 37-39=-277/563, 36-37=-277/563, 35-36=-277/563, 34-35=-277/563, 33-34=-277/563, 32-33=-277/563, 31-32=-277/563, 30-31=-277/563, 29-30=-274/558, 28-29=-274/558, 27-28=-274/558, 25-27=-274/558

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-3-12, Exterior(2N) 3-3-12 to 11-7-8, Corner(3R) 11-7-8 to 15-0-0, Exterior(2N) 15-0-0 to 32-6-8 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
- 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) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 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) 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 25 except (jt=lb) 27=101.
- 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.



September 17, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	B1	Common Supported Gable	1	1	

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

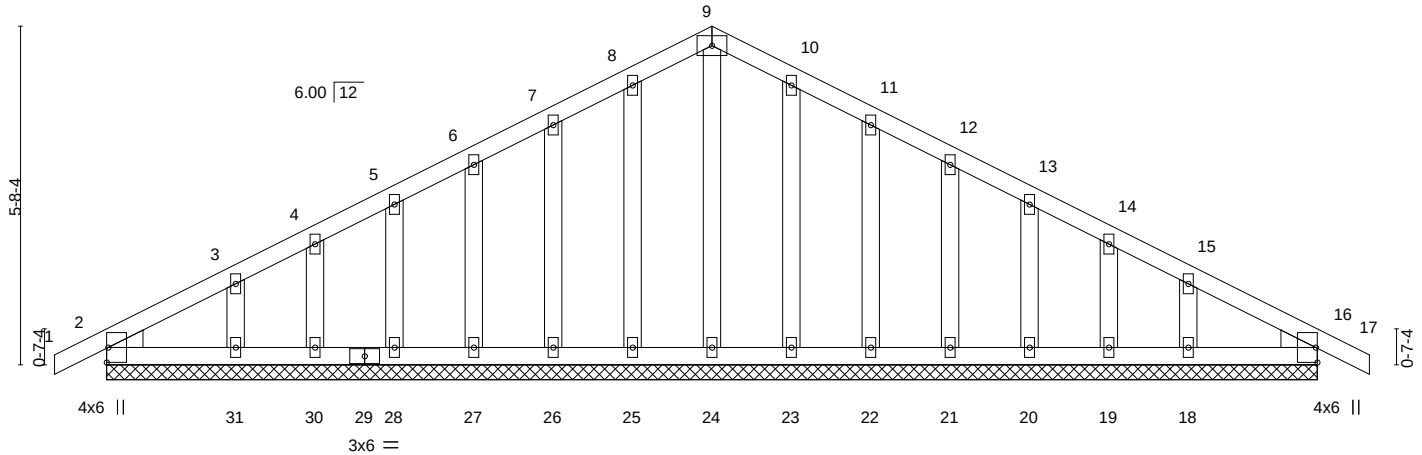
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:48 2021 Page 1

ID: pEI2tSneICAFSbWVgXHdMzCDRM-rXeWfwVJe?WHA RZde0CpPmJP8MjoatqJOKkqyJ4v

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

4x6 ==

Scale = 1:38.7



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	in	(loc)	l/defl	L/d	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(LL)	-0.00	16	n/r				
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Vert(CT)	-0.00	16	n/r				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Horz(CT)	0.00	16	n/a				
										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 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 20-4-0.
 (lb) - Max Horz 2=-97(LC 17)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16
 Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C 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
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1'-4" oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

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

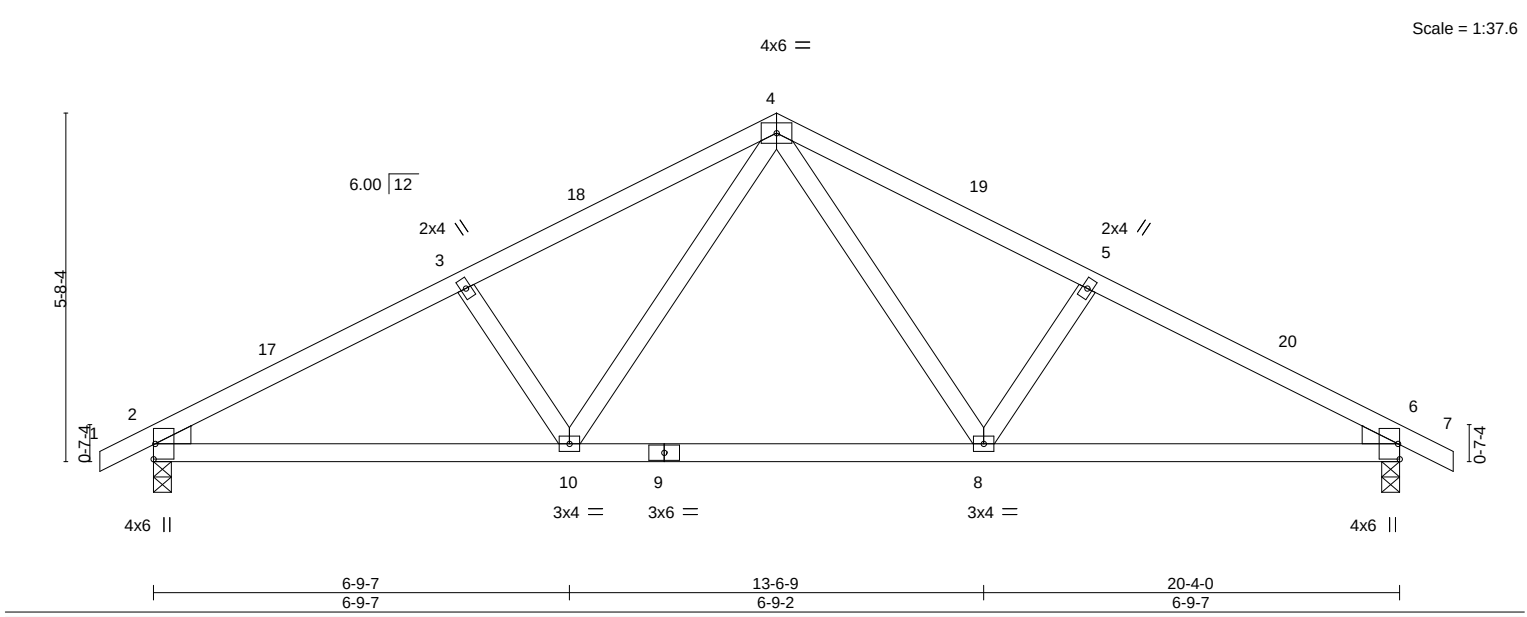
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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	B2	Common	4	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:49 2021 Page 1
 ID: pEl2tSneICAFSbWVGXHdMzCDRM-JjCusGWxPJe8bb8qCkzrcJQsVbu0PZV1UStCyJ4u 20-1-0 21-2-0 0-10-8



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.41	Vert(LL) -0.07 8-10 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.14 8-10 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 6 n/a n/a		
	Code IRC2018/TPI2014			Weight: 74 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8
 Max Horz 2=-97(LC 13)
 Max Uplift 2=-170(LC 12), 6=-170(LC 13)
 Max Grav 2=976(LC 1), 6=976(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1480/352, 3-4=-1313/364, 4-5=-1313/364, 5-6=-1480/352
 BOT CHORD 2-10=-243/1258, 8-10=-94/873, 6-8=-237/1258
 WEBS 4-8=-118/463, 5-8=-314/183, 4-10=-118/463, 3-10=-314/182

NOTES-
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 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
 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=170, 6=170.
 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	B3	GABLE	1	2	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:51 2021 Page 1

ID:pEI2tSnelCAFSbWVGXhDMLzCDRM-G6KeHyXCxwvur1vIK9mWw10OpLDPJkM67L2fx9ydJ4s

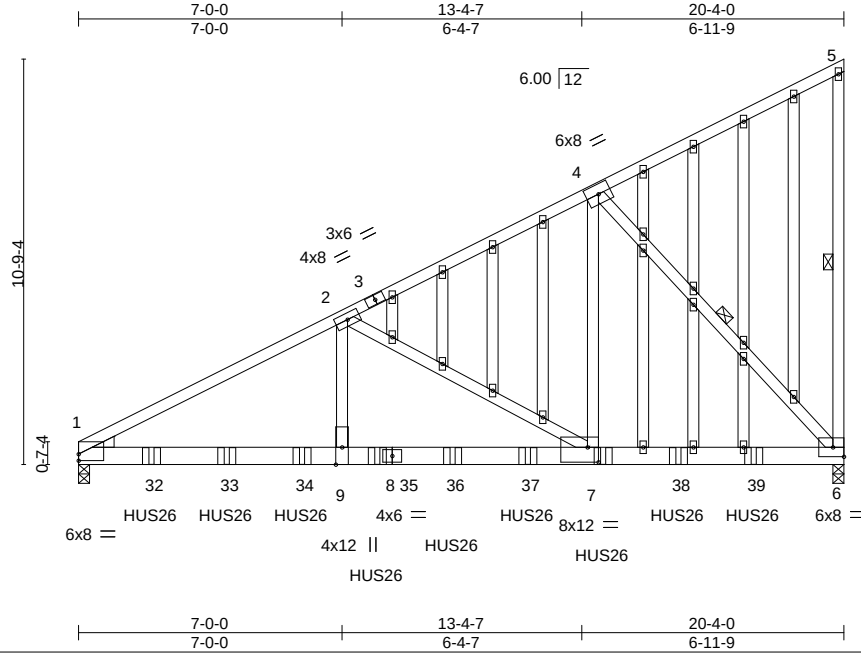


Plate Offsets (X,Y)-- [1:0-0-0,0-2-1], [7:0-3-8,0-4-12]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.87	Vert(LL) -0.13	7-9	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.67	Vert(CT) -0.22	7-9	>999	180		
BCLL 0.0	Rep Stress Incr NO	WB 0.85	Horz(CT) 0.05	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS					Weight: 261 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6, 4-6

REACTIONS.

(size) 1=0-3-8, 6=0-3-8
Max Horz 1=412(LC 8)
Max Uplift 1=-754(LC 8), 6=-945(LC 8)
Max Grav 1=4888(LC 1), 6=4745(LC 1)

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

TOP CHORD 1-2=-7899/1186, 2-4=-4118/578
BOT CHORD 1-9=-1384/6978, 7-9=-1384/6978, 6-7=-703/3594
WEBS 2-9=-458/3106, 2-7=-3873/778, 4-7=-822/5147, 4-6=-5265/1028

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 0-9-0 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; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- 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=754, 6=945.
- This truss 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 1-11-4 from the left end to 17-11-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Studding applied to ply: 1(Front)

Continued on page 2



September 17, 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/155 Hawthorn
2929204	B3	GABLE	1	2	Job Reference (optional)

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Aug 16 2021 MiTek Industries, Inc.
Wed Sep 15 18:07:51 2021 Page 2
ID:pEl2tSnelCAFSbWVgXHdMlzCDRM-G6KeHyXCxwur1vIGK9mWwL1OupLDPJkMG?LzFxx9ydJ4s

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 6-29=-20
Concentrated Loads (lb)
Vert: 7=-869(B) 32=-867(B) 33=-867(B) 34=-869(B) 35=-869(B) 36=-869(B) 37=-869(B) 38=-869(B) 39=-869(B)

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

10/11/2021



Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	C1	Common Supported Gable	1	1	

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

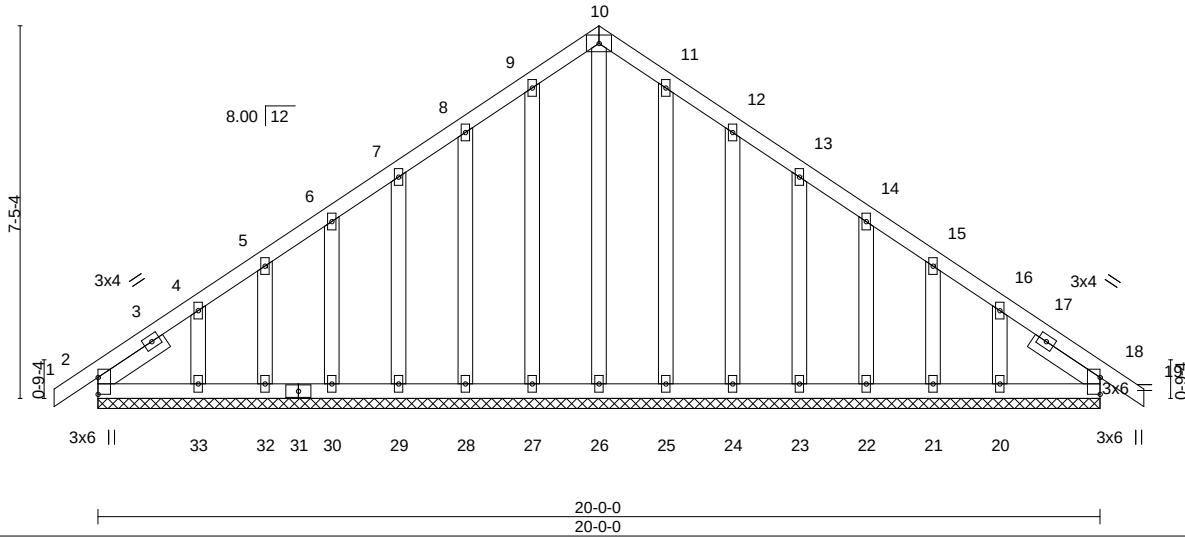
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:52 2021 Page 1

ID:pEI2tSneICAFSbWVgXHdMizCDRM-kit1ViydE0if3tPcHISFW?EjZ2MIPEz1byd94r

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

4x6 =

Scale = 1:46.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	18	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	18	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.00	18	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S							

Weight: 116 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 OTHERS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 1-7-7, Right 2x4 SPF No.2 1-7-7

BRACING-

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

REACTIONS.

All bearings 20-0-0.
 (lb) - Max Horz 2=189(LC 11)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 32, 25, 24, 23, 22, 21, 18 except
 33=-118(LC 12), 20=-106(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 2, 26, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 21, 20, 18

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-10-8 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
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 28, 29, 30, 32, 25, 24, 23, 22, 21, 18 except (jt=lb) 33=118, 20=106.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

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

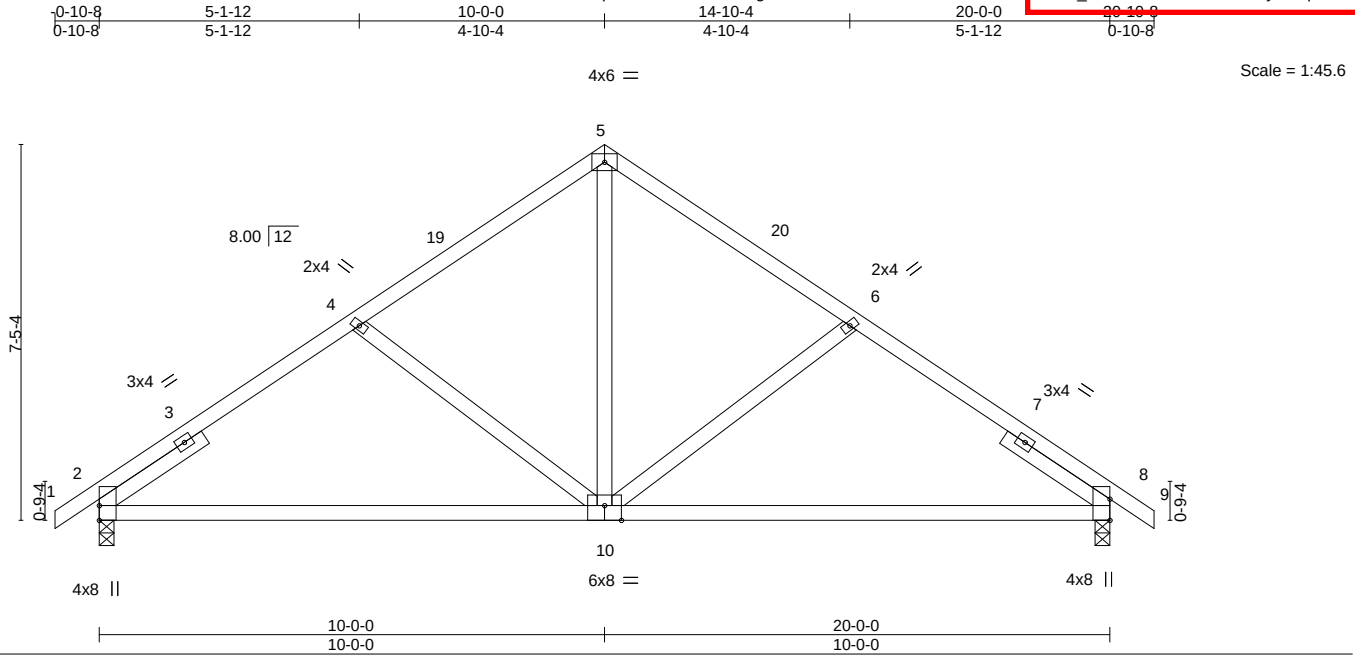


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	C2	Common	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:58 2021 Page 1
 ID: pEI2tSnelCAFSbWVgXHdMzCDRM-CVRPidZSTX8ZHD RbRao_001709/vvnoo27fSW02yJ4q 147924243

10/11/2021



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.13 10-17 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.27 10-17 >892 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.02 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 80 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0		

REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=189(LC 11)
 Max Uplift 2=-158(LC 12), 8=-158(LC 13)
 Max Grav 2=961(LC 1), 8=961(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-1010/216, 4-5=-899/205, 5-6=-899/205, 6-8=-1010/216
 BOT CHORD 2-10=-195/911, 8-10=-88/895
 WEBS 5-10=-91/547, 6-10=-323/211, 4-10=-322/210

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=158, 8=158.
 - This truss 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.

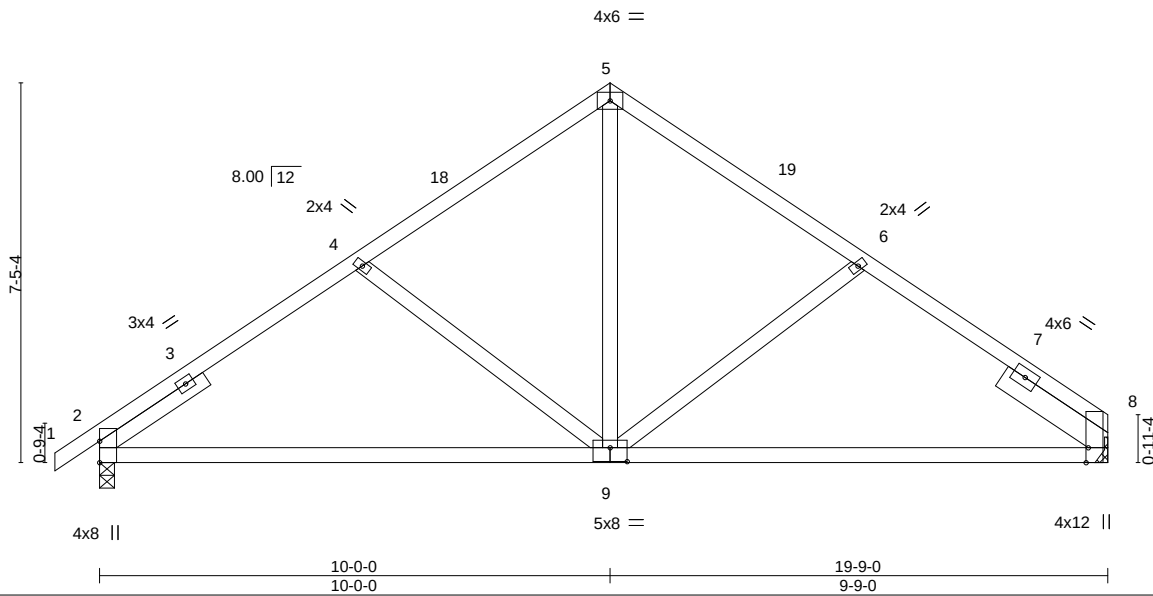


September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	C2A	Common	2	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:54 2021 Page 1
 ID: pEI2tSneCAFSbWVgXHdMzCDRM-gh?nwza4DrHQum0n?HJDrg0rZzF5WpFmJBSYUjd4p

10/11/2021



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.14 9-16 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.28 9-16 >839 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.03 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 80 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0		

REACTIONS. (size) 8=Mechanical, 2=0-3-8
 Max Horz 2=184(LC 9)
 Max Uplift 8=135(LC 13), 2=157(LC 12)
 Max Grav 8=887(LC 1), 2=951(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-992/214, 4-5=-881/202, 5-6=-877/202, 6-8=-1076/212
 BOT CHORD 2-9=-207/890, 8-9=-105/851
 WEBS 4-9=-323/210, 5-9=-88/526, 6-9=-290/202

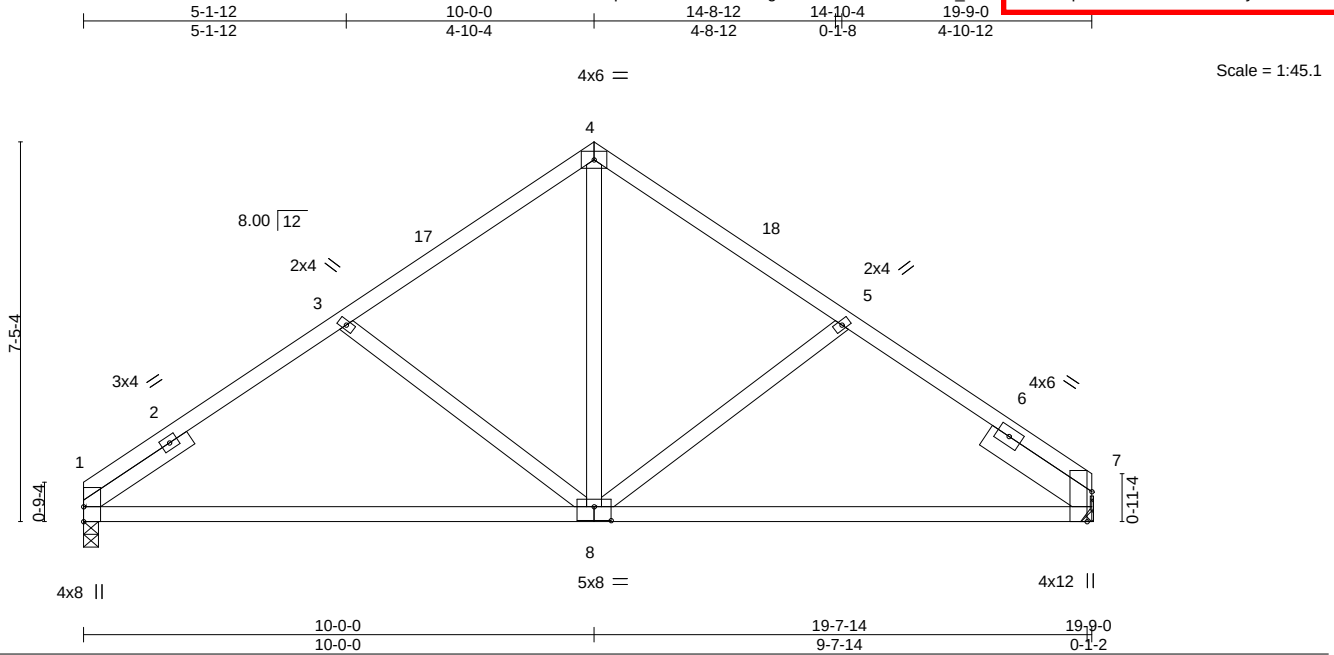
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 19-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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=135, 2=157.
 - This truss 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.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	C3	Common	7	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:55 2021 Page 1
 ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-8tz97Jai_8PHVWbZz?c=541162aFIEswzxd4wydJ4o



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.14 8-11 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.28 8-11 >835 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.03 7 n/a n/a				
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							
								Weight: 79 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0		

REACTIONS.	
(size)	1=0-3-8, 7=Mechanical
Max Horz	1=174(LC 9)
Max Uplift	1=-136(LC 12), 7=-135(LC 13)
Max Grav	1=889(LC 1), 7=889(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-3=-997/216, 3-4=-884/204, 4-5=-879/203, 5-7=-1079/212
BOT CHORD	1-8=-209/896, 7-8=-105/853
WEBS	3-8=-328/211, 4-8=-88/527, 5-8=-290/202

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 19-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=136, 7=135.
 - This truss 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.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	CJ1	Diagonal Hip Girder	2	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:55 2021 Page 1					
Job Reference (optional)					
ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-c47XKfbKISX88gAA6iMhd55AKM2B_Cv+9dgAcMydJ4m					

10/11/2021

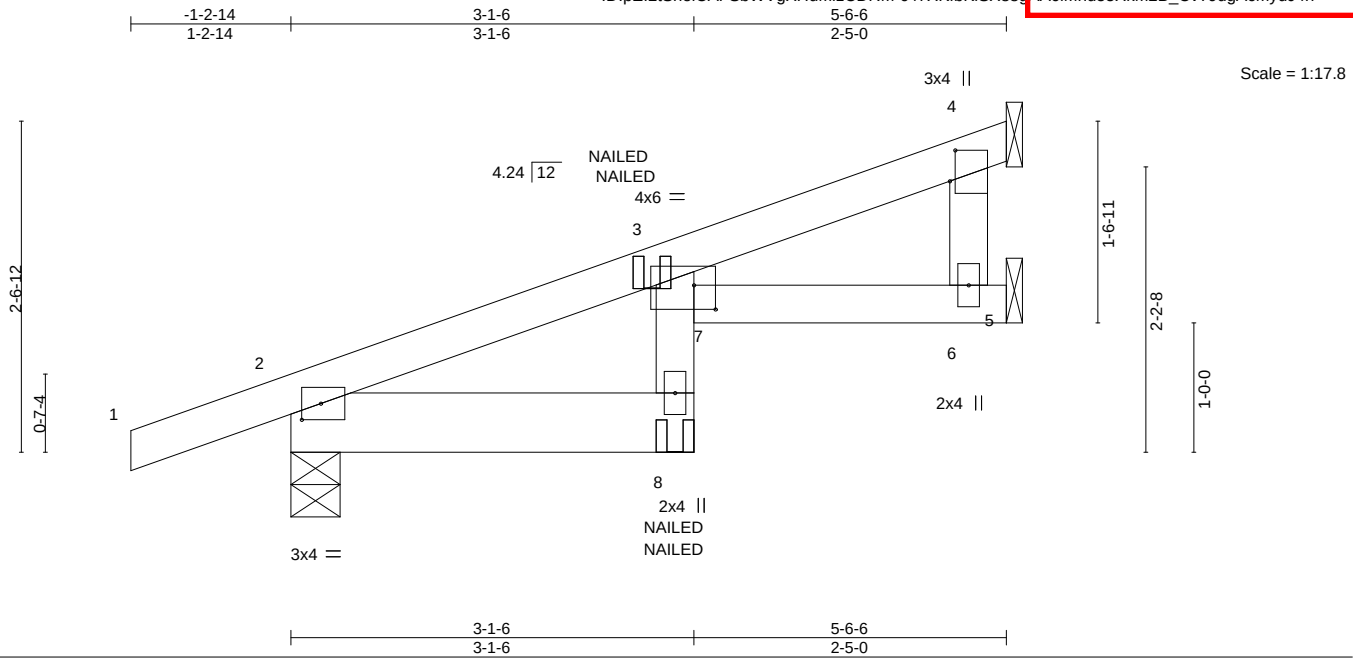


Plate Offsets (X,Y)-- [2:0-1-12,0-1-8], [3:0-2-0,0-2-4], [4:0-2-14,0-0-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	0.10 8	>622	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.16 8	>386	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.05 6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 19 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-8: 2x6 SPF No.2	6-0-0 oc bracing: 2-8.
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 2=0-4-9, 6=Mechanical, 4=Mechanical
	Max Horz 2=99(LC 4)
	Max Uplift 2=-106(LC 4), 4=-90(LC 8)
	Max Grav 2=338(LC 1), 6=58(LC 3), 4=209(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=106.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
 - 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 8-9=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 8=-12(F=-6, B=-6)



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	D1	Common	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:57 2021 Page 1					
ID:pEl2tSnelCAFSbWVGXHdMlzCDRM-4GhwY?czWmf7lqIMgPtwelejwmi7jez9NHQKspydJ4m					
Job Reference (optional)					

7-9-8			15-7-0		
7-9-8			7-9-8		

7x8 ||

Scale = 1:29.7

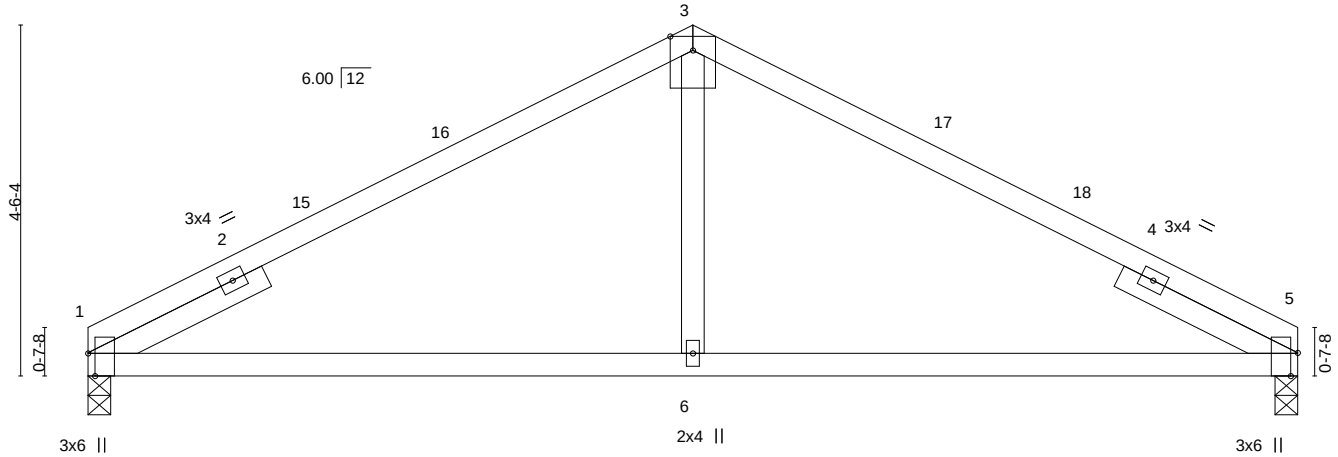


Plate Offsets (X,Y)--		[1:0-3-8,Edge], [5:0-3-9,Edge]	
LOADING (psf)		SPACING-	
TCLL	25.0	Plate Grip DOL	1.15
TCDL	10.0	Lumber DOL	1.15
BCLL	0.0	Rep Stress Incr	YES
BCDL	10.0	Code	IRC2018/TPI2014
CSI.		DEFL.	
TC	0.61	in (loc)	l/defl
BC	0.52	Vert(LL)	-0.12 6-9 >999 240
WB	0.08	Vert(CT)	-0.19 6-9 >966 180
Matrix-AS		Horz(CT)	0.03 1 n/a n/a
PLATES		GRIP	
MT20		197/144	
Weight: 48 lb		FT = 20%	

LUMBER-

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

REACTIONS.

(size) 1=0-3-8, 5=0-3-8
Max Horz 1=69(LC 12)
Max Uplift 1=-115(LC 12), 5=-115(LC 13)
Max Grav 1=701(LC 1), 5=701(LC 1)

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

TOP CHORD 1-3=-880/306, 3-5=-880/306
BOT CHORD 1-6=-162/759, 5-6=-162/759
WEBS 3-6=0/336

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 7-9-8, Exterior(2R) 7-9-8 to 10-9-8, Interior(1) 10-9-8 to 15-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=115, 5=115.
- This truss 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.

BRACING-

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



September 17, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	D2	Roof Special	2	1	

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

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:58 2021 Page 1
ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-ZSFILdbH3nsN_KYE7O9nWAsdAXQ35Wicx9mhfYdJ4#		147924248

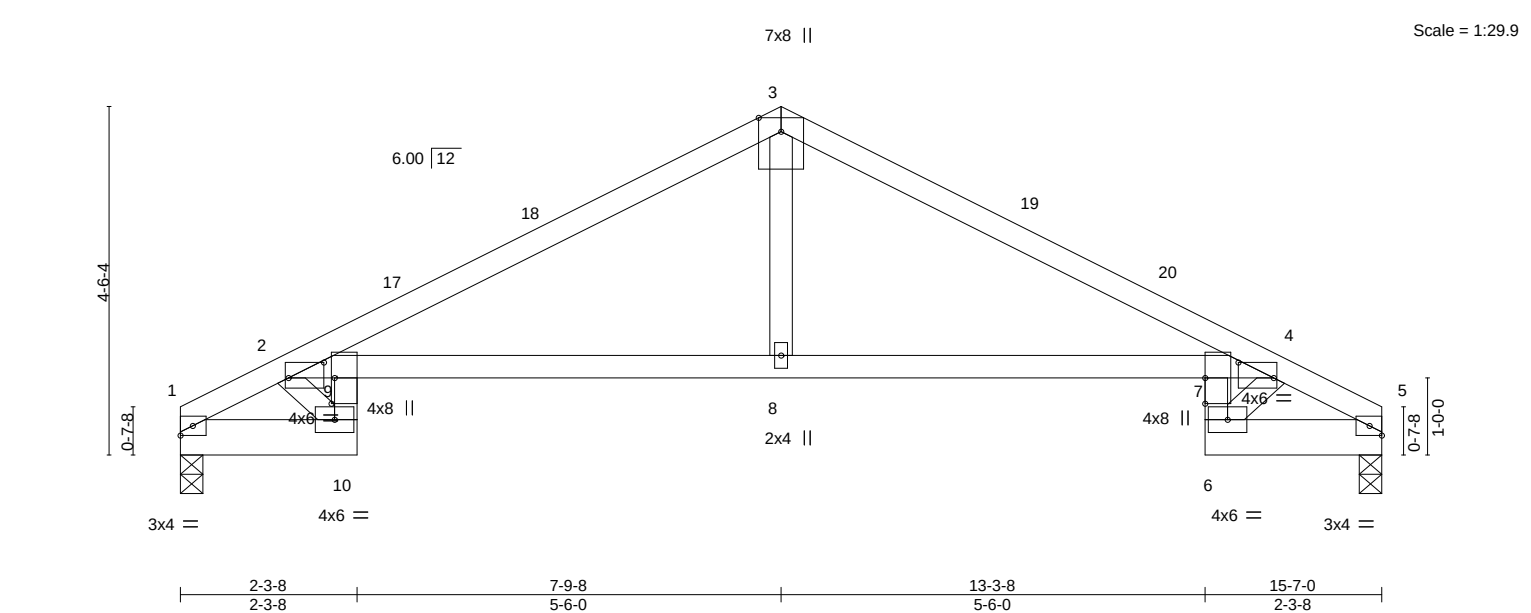


Plate Offsets (X,Y)-- [2:0-5-8,0-2-7], [4:0-5-8,0-2-7], [7:0-4-0,0-0-0], [9:0-4-0,0-0-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.24	7-8	>777	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.45	7-8	>419	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.27	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 54 lb	FT = 20%

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

REACTIONS.	(size) 1=0-3-8, 5=0-3-8
	Max Horz 1=-69(LC 13)
	Max Uplift 1=-115(LC 12), 5=-115(LC 13)
	Max Grav 1=701(LC 1), 5=701(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-12=-1088/361, 2-3=-1256/376, 3-4=-1256/380, 4-5=-1088/361
BOT CHORD	1-10=-292/884, 9-10=-198/710, 2-9=-113/774, 8-9=-226/1079, 7-8=-226/1079, 4-7=-119/774, 6-7=-201/710, 5-6=-288/884
WEBS	3-8=-65/492, 2-10=-896/277, 4-6=-896/279

- NOTES-**
- Unbalanced roof live loads HAVE been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 7-9-8, Exterior(2R) 7-9-8 to 10-9-8, Interior(1) 10-9-8 to 15-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - The Fabrication Tolerance at joint 3 = 12%
 - 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=115, 5=115.
 - This truss 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.



September 17,2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	D3	Hip	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:07:59 2021 Page 1					
Job Reference (optional)					
ID: pEI2tSnelCAFSbWVgXHdMlzCDRM-1fpgzhD2Nj78vloqCEj+axvXBVVRbvqDhydJ4k					
0-10-8 2-4-0 4-0-4 6-0-0 9-8-0 11-7-12 13-4-0 15-0-0 16-6-8 0-10-8					

Scale = 1:29.5

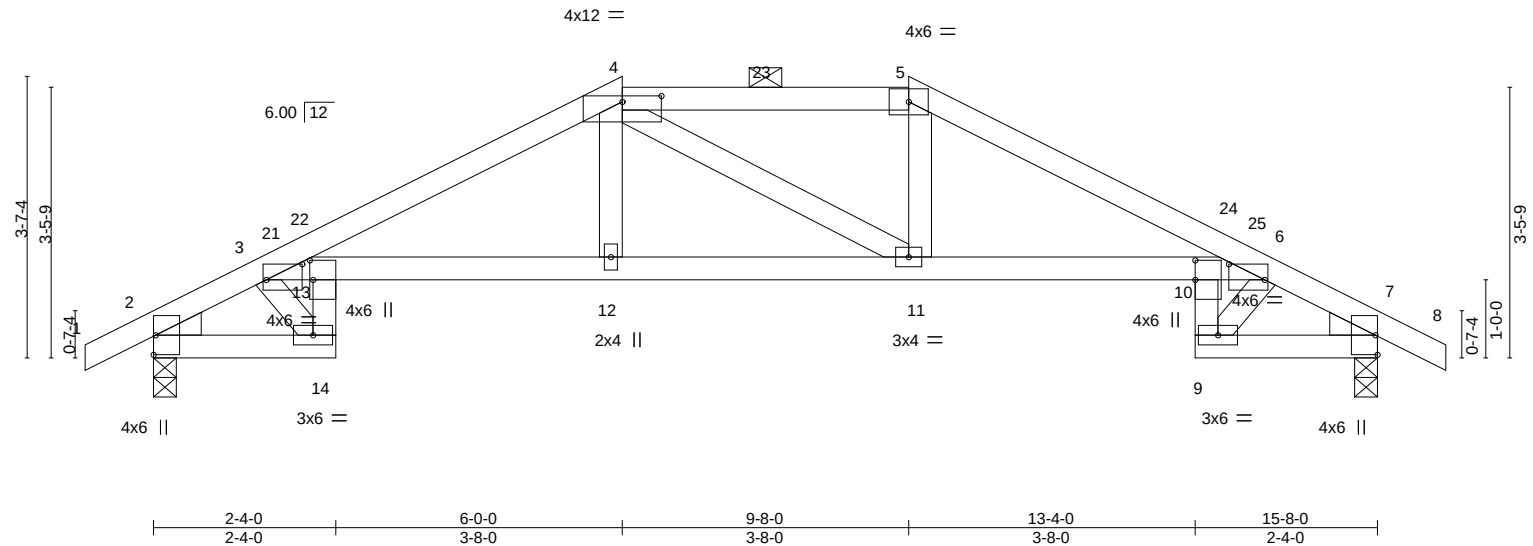


Plate Offsets (X,Y)-- [3:0-5-8,0-2-7], [4:0-6-0,0-0-15], [6:0-5-8,0-2-7], [10:0-3-0,0-0-0], [13:0-3-0,0-0-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	-0.17 10-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.31 10-11	>605	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.22 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 61 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2 *Except*	2-0-0 oc purlins (5-0-4 max.): 4-5.
3-6: 2x4 SP 2400F 2.0E	Rigid ceiling directly applied. Except:
WEBS 2x4 SPF No.2	10-0-0 oc bracing: 10-11
WEDGE	
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-59(LC 17)
Max Uplift 2=-140(LC 12), 7=-140(LC 13)
Max Grav 2=766(LC 1), 7=766(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-16=-983/282, 3-4=-1475/378, 4-5=-1280/388, 5-6=-1474/379, 6-7=-983/282
BOT CHORD 2-14=-196/769, 13-14=-165/729, 3-13=-178/1065, 12-13=-242/1299, 11-12=-241/1281,
10-11=-247/1298, 6-10=-182/1064, 9-10=-169/729, 7-9=-199/769
WEBS 4-12=-23/294, 5-11=-26/294, 3-14=-870/214, 6-9=-869/218

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0, Exterior(2E) 6-0-0 to 9-8-0, Exterior(2R) 9-8-0 to 13-10-15, Interior(1) 13-10-15 to 16-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=140, 7=140.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 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.



September 17, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	D4	Hip Girder	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			Job Reference (optional)		
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:01:01 2021 Page 1			ID:pEI2tSneIcAFSbWVgXHdMizCDRM-z1wQOMfTa_9fER37vFASk66k7N0HfRbKIVoxlaydJ#		
-0-10-8 2-4-0 4-0-0 7-10-0 11-8-0 13-4-0 15-8-0 0-10-8			0-10-8 2-4-0 1-8-0 3-10-0 3-10-0 1-8-0 2-4-0 0-10-8		

Scale = 1:29.5

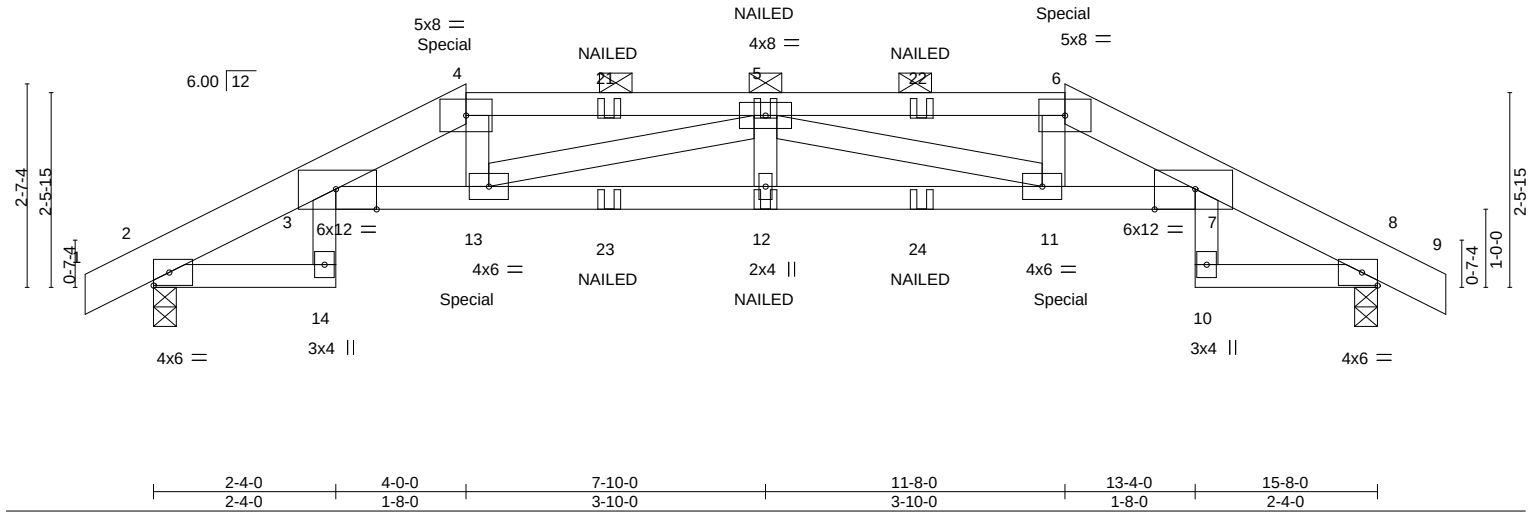


Plate Offsets (X,Y)-- [3:0-6-4,Edge], [7:0-6-4,Edge]		2-4-0 4-0-0 7-10-0 11-8-0 13-4-0 15-8-0		2-4-0 1-8-0 3-10-0 3-10-0 1-8-0 2-4-0	
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.88	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.76	Vert(LL) -0.24 12 >768 240		
BCLL 0.0	Rep Stress Incr NO	WB 0.19	Vert(CT) -0.45 12 >420 180		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.37 8 n/a n/a		
				Weight: 70 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-6: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-4 oc purlins, except 2-0-0 oc purlins (3-1-7 max.): 4-6.
BOT CHORD 2x4 SPF No.2 *Except* 3-7: 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 8-0-15 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=43(LC 8)
Max Uplift 2=-317(LC 8), 8=-317(LC 9)
Max Grav 2=1081(LC 1), 8=1081(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-16=-542/203, 3-4=-2889/895, 4-5=-2942/927, 5-6=-2942/889, 6-7=-2889/868,
7-8=-542/195
BOT CHORD 3-13=-870/2914, 12-13=-1073/3593, 11-12=-1073/3593, 7-11=-836/2914
WEBS 5-13=-723/249, 5-11=-723/246

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=317, 8=317.
 - This truss 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) 200 lb down and 157 lb up at 4-0-0, and 200 lb down and 157 lb up at 11-8-0 on top chord, and 51 lb down and 34 lb up at 4-0-0, and 51 lb down and 34 lb up at 11-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 6-7=-70, 7-9=-70, 14-15=-20, 3-7=-20, 10-18=-20



September 17, 2021

Continued on page 2

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	D4	Hip Girder	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:08:01 2021 Page 2
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

10/11/2021

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 4=-141(B) 6=-141(B) 13=-51(B) 5=-31(B) 12=-51(B) 11=-51(B) 21=-31(B) 22=-31(B) 23=-51(B) 24=-51(B)

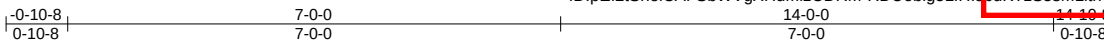
Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	E1	Common Supported Gable	1	1	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:02 2021 Page 1

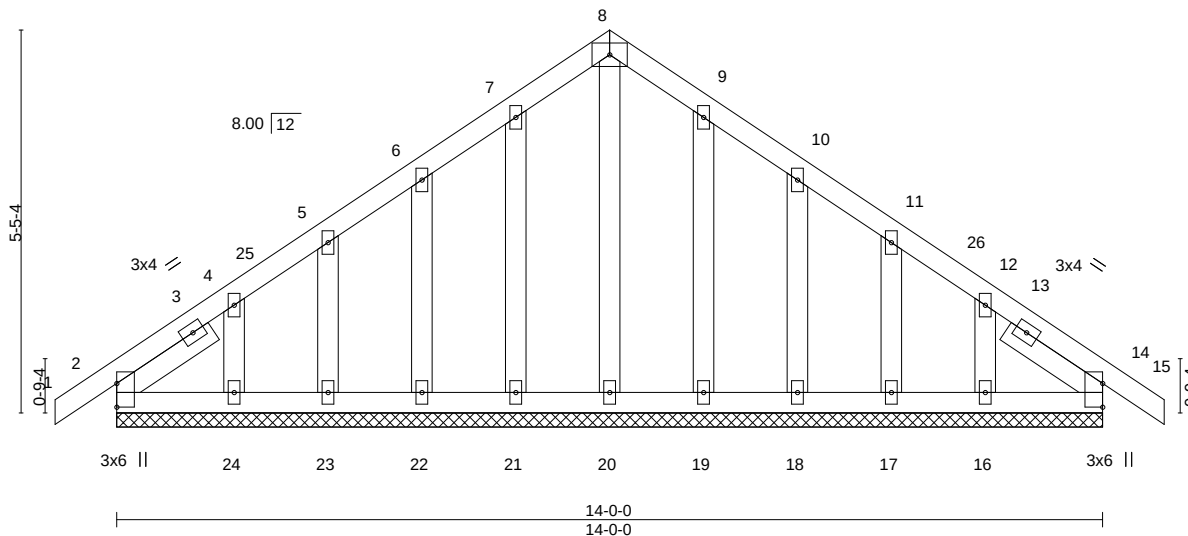
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10/11/2021



4x6 ==

Scale = 1:32.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	14	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	15	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 72 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 OTHERS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 1-7-9, Right 2x4 SPF No.2 1-7-9

BRACING-

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

REACTIONS.

All bearings 14-0-0.
 (lb) - Max Horz 2=-137(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 14, 21, 22, 23, 24, 19, 18, 17, 16
 Max Grav All reactions 250 lb or less at joint(s) 2, 14, 20, 21, 22, 23, 24, 19, 18, 17, 16

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 7-0-0, Corner(3R) 7-0-0 to 10-0-0, Exterior(2N) 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
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 14, 21, 22, 23, 24, 19, 18, 17, 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

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

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



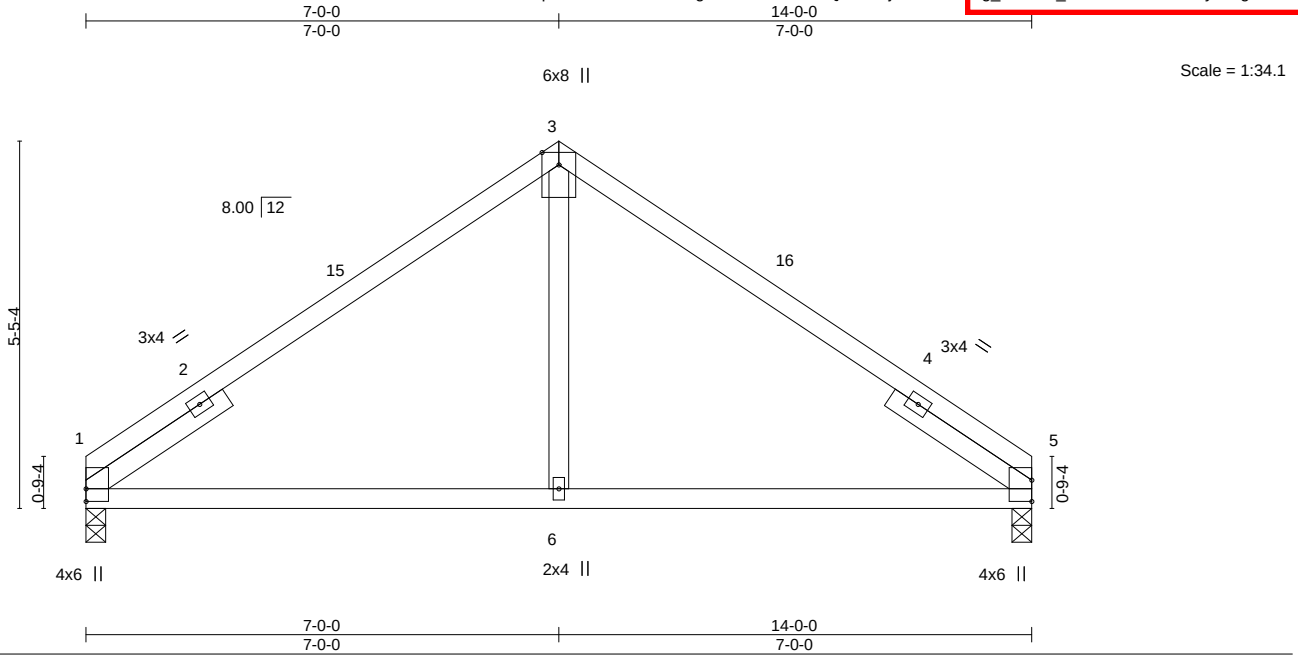
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	E2	Common	5	1	

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:08:03 2021 Page 1
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10/11/2021



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.47	Vert(LL)	-0.07	6-13	>999	240	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.38	Vert(CT)	-0.12	6-13	>999	180		
BCLL 0.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	0.03	1	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS							
	Code IRC2018/TPI2014							Weight: 47 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0	

REACTIONS.	(size)
1=0-3-8, 5=0-3-8	
Max Horz 1=-122(LC 8)	
Max Uplift 1=-96(LC 12), 5=-96(LC 13)	
Max Grav 1=630(LC 1), 5=630(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-3=-603/186, 3-5=-603/186
BOT CHORD	1-6=-52/502, 5-6=-52/502
WEBS	3-6=0/302

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	E3	Flat Girder	1	2	

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Aug 16 2021 MiTek Industries, Inc.
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Job Reference (optional)

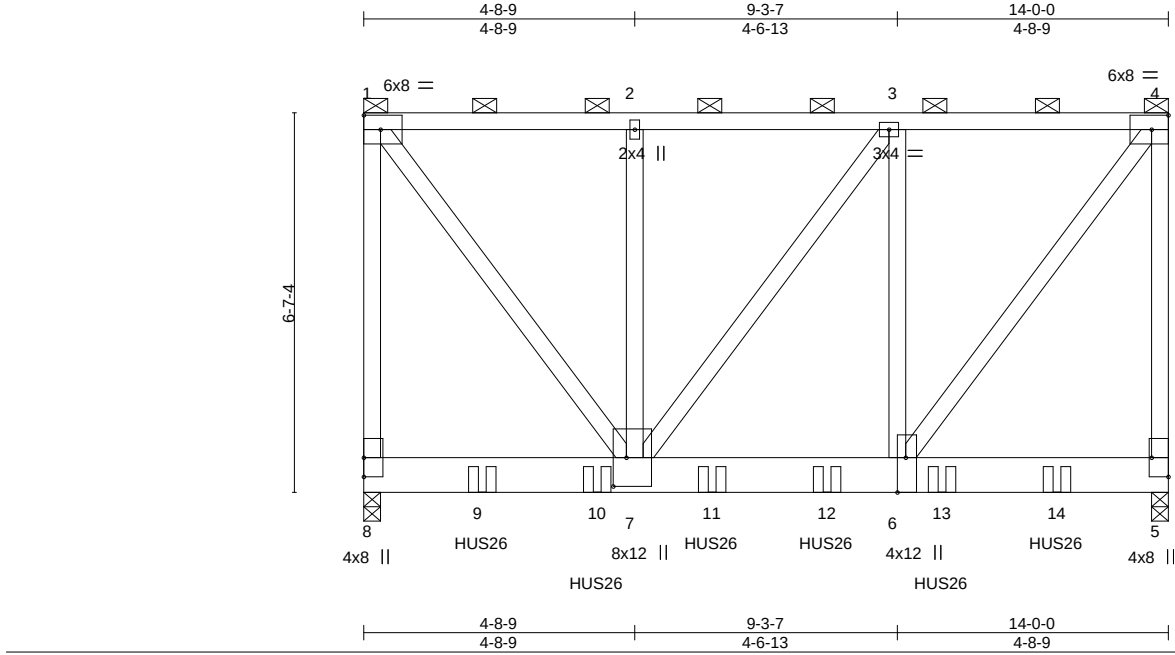


Plate Offsets (X,Y)--		[5:Edge,0-3-8], [6:0-7-4,Edge], [7:0-6-0,0-2-12]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.79	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.26	Vert(LL) -0.06 6-7 >999 240
BCLL 0.0	Lumber DOL 1.15	WB 0.71	Vert(CT) -0.10 6-7 >999 180
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.00 5 n/a n/a
	Code IRC2018/TPI2014		
		PLATES	GRIP
		MT20	197/144
		Weight: 219 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 8=0-3-8, 5=0-3-8
	Max Horz 8=-235(LC 4)
	Max Uplift 8=-986(LC 4), 5=-1000(LC 5)
	Max Grav 8=5850(LC 1), 5=5946(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-4797/834, 1-2=-3474/578, 2-3=-3474/578, 3-4=-3499/583, 4-5=-4829/840
BOT CHORD 6-7=-644/3499
WEBS 1-7=-973/5785, 2-7=-326/155, 3-6=-298/214, 4-6=-981/5826

- 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 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=986, 5=1000.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 12-0-12 to connect truss(es) to back face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 5-8=-20

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	E3	Flat Girder	1	2	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:08:04 2021 Page 2
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 9=-1762(B) 10=-1762(B) 11=-1760(B) 12=-1760(B) 13=-1760(B) 14=-1760(B)

10/11/2021



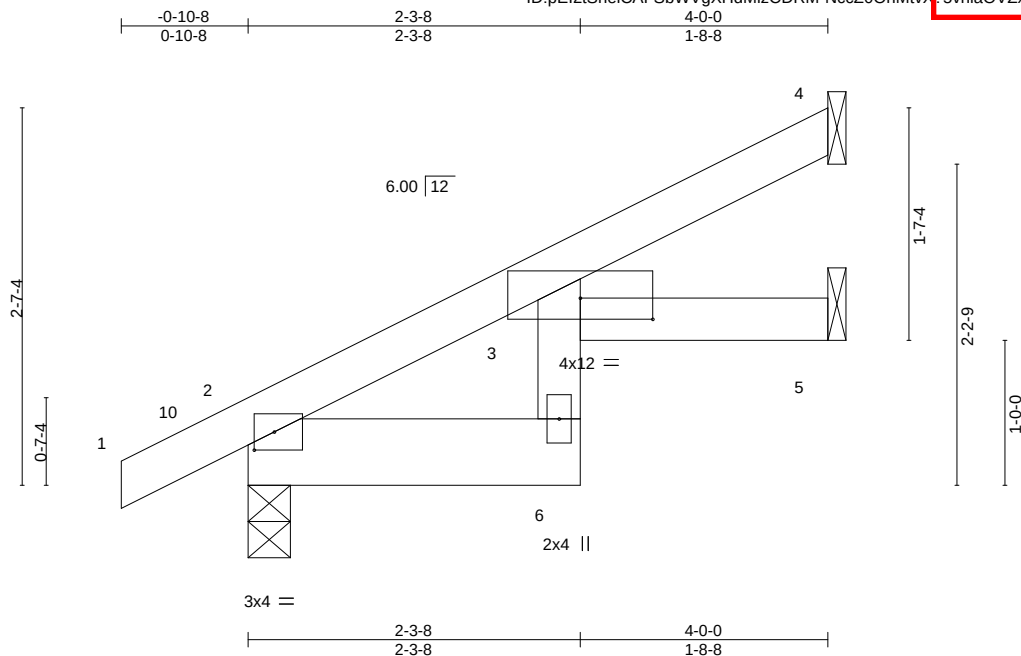
10/11/2021

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	J1	Jack-Open	5	1	

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ID:pEI2tSnelCAFSbWVgXHdMizCDRM-NccZ0OhMtvX25vniaOVzXnQ_PbmvsgqA_tCbuYdJH#



Scale: 3/4"=1'

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	0.03	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.04	6	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.03	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 14 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
 Max Horz 2=96(LC 12)
 Max Uplift 4=47(LC 12), 2=-38(LC 12), 5=-15(LC 12)
 Max Grav 4=101(LC 1), 2=246(LC 1), 5=71(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

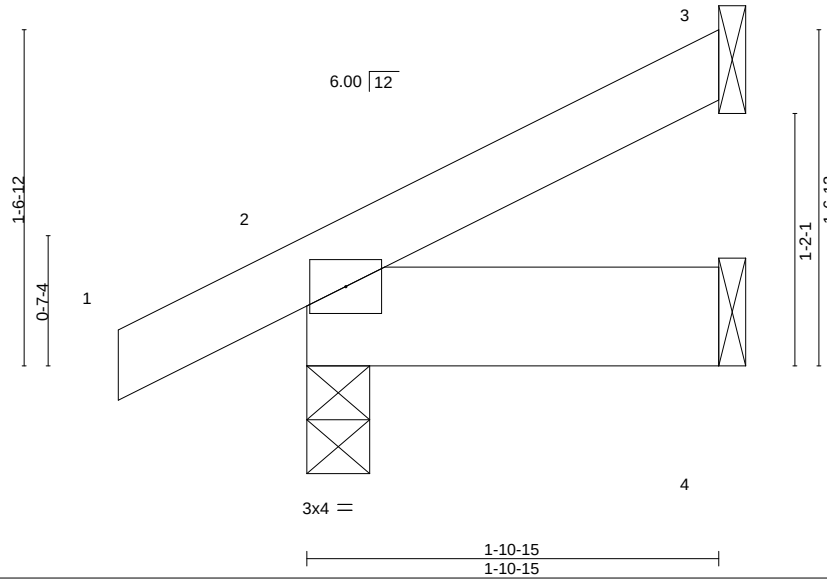


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	J2	Jack-Open	4	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:05 2021 Page 1					
ID:pEI2tSnelCAFSbWVgXHdMizCDRM-roAxDki_eDfsj3Mu850oU_zD249pb57KbXMSRLjdJ4e					
Job Reference (optional)					

-0-10-8
0-10-8
1-10-15
1-10-15

Scale = 1:10.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.05	Vert(LL)	-0.00	7	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	-0.00	7	>999		
BCLL 0.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP						
	Code IRC2018/TPI2014						Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=54(LC 12)
 Max Uplift 3=-26(LC 12), 2=-30(LC 12), 4=-3(LC 12)
 Max Grav 3=45(LC 1), 2=161(LC 1), 4=38(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

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 Chesterfield, MO 63017

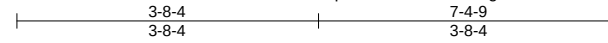
Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	L1	GABLE	1	1	
Job Reference (optional)					

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

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10/11/2021



4x6 ==

Scale = 1:28.2

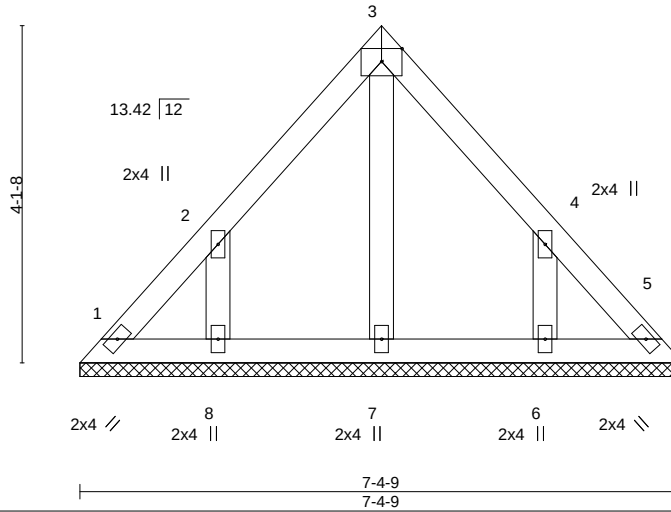


Plate Offsets (X,Y)-- [3:Edge,0-1-14]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	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 0.03	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 27 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-4-9.
(lb) - Max Horz 1=101(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-154(LC 12), 6=-154(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-8-4, Exterior(2R) 3-8-4 to 6-8-4, Interior(1) 6-8-4 to 7-0-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=154, 6=154.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	PB1	GABLE	1	1	

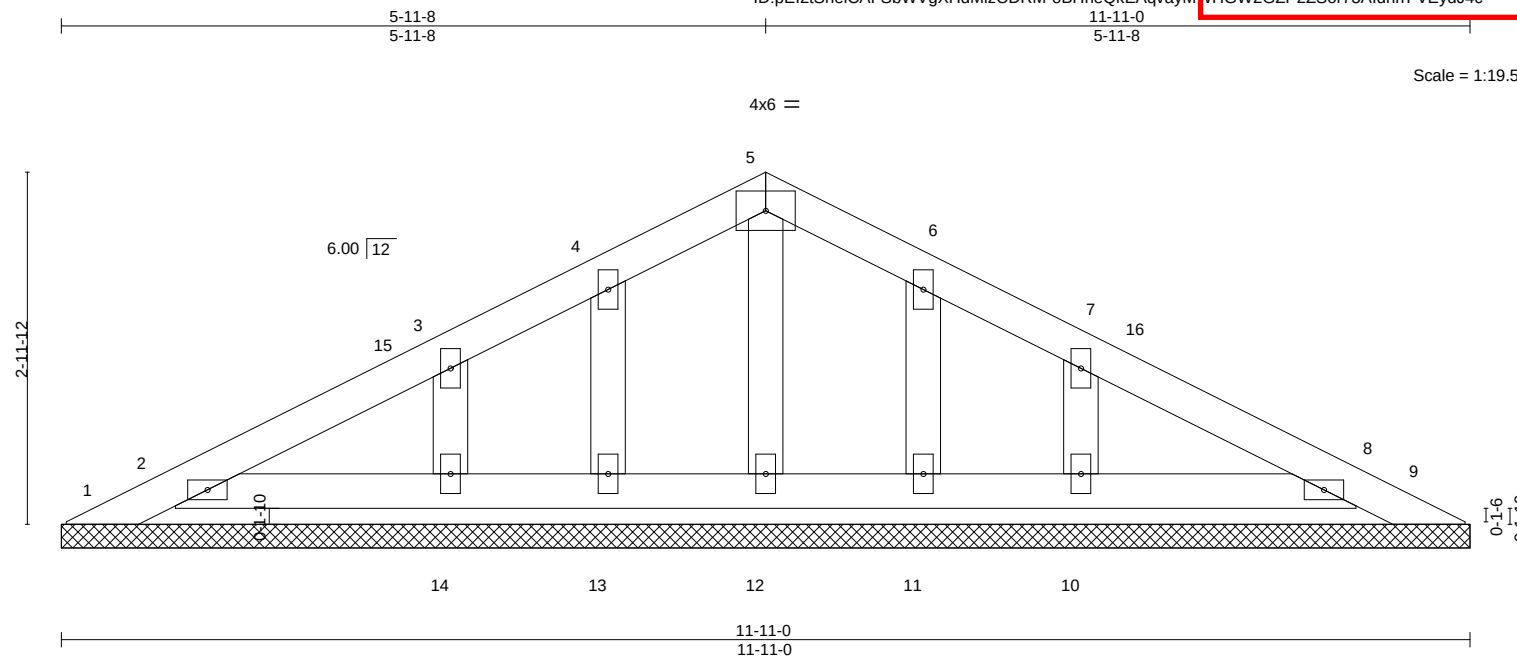
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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Job Reference (optional)

10/11/2021



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) n/a	-	n/a	999		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) n/a	-	n/a	999			
BCLL 0.0	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.00	8	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S						Weight: 35 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 11-11-0.
(lb) - Max Horz 1=49(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 2, 8, 13, 14, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 2, 8, 12, 13, 14, 11, 10

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-3 to 3-3-8, Interior(1) 3-3-8 to 5-11-8, Exterior(2R) 5-11-8 to 8-11-8, Interior(1) 8-11-8 to 11-6-13 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
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 2, 8, 13, 14, 11, 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



September 17, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	PB1A	GABLE	1	1	

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

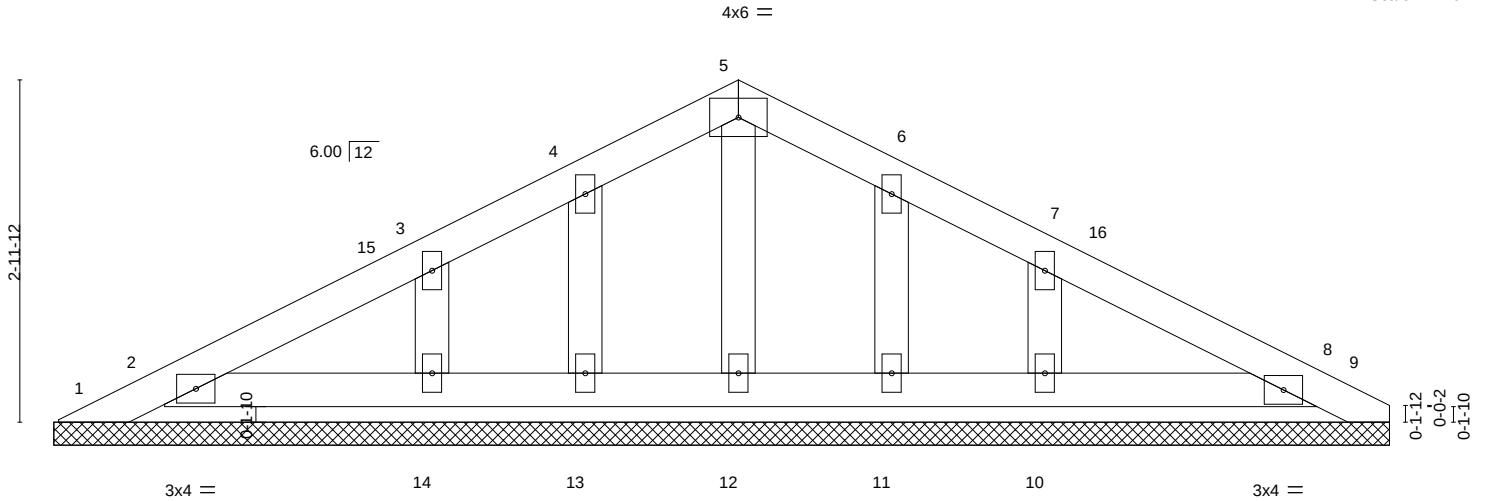
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Job Reference (optional)

10/11/2021

Scale = 1:20.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 35 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 11-7-8.

(lb) - Max Horz 1=51(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 2, 8, 13, 14, 11, 10

Max Grav All reactions 250 lb or less at joint(s) 1, 9, 2, 8, 12, 13, 14, 11, 10

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-3 to 3-3-8, Interior(1) 3-3-8 to 5-11-8, Exterior(2R) 5-11-8 to 8-11-8, Interior(1) 8-11-8 to 11-5-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 2, 8, 13, 14, 11, 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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

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

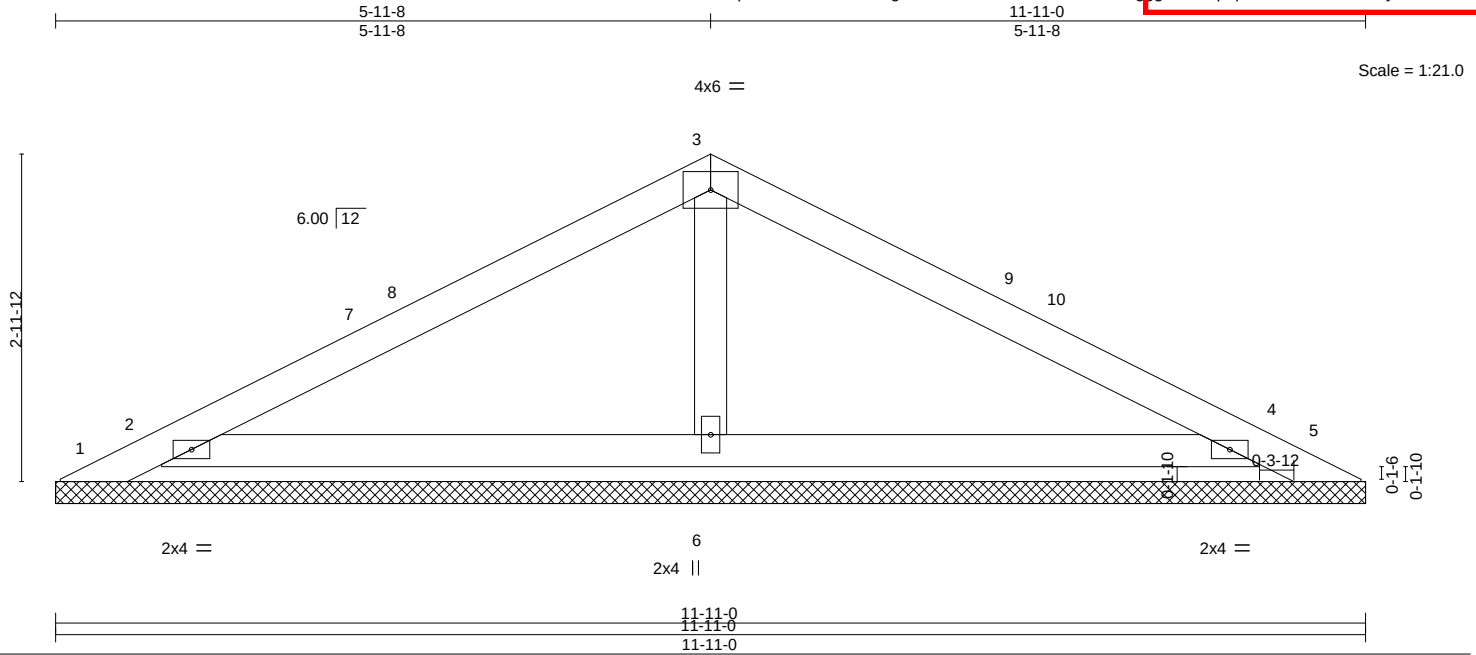


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	PB2	GABLE	22	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:00 2021 Page 1		
			ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-kaPS36lUhs9lCggNx5kedqbcUEX4Pw89Kma6ydJ4a		
			Job Reference (optional)		

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

10/11/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 29 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 11-11-0.
(lb) - Max Horz 1=-49(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 6 except 1=-259(LC 25), 5=-259(LC 26), 2=-225(LC 12), 4=-212(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=564(LC 25), 4=564(LC 26), 6=411(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-290/159

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-3 to 3-4-3, Interior(1) 3-4-3 to 5-11-8, Exterior(2R) 5-11-8 to 8-11-8, Interior(1) 8-11-8 to 11-6-13 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
 - 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.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.
 - 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) 6 except (jt=lb) 1=259, 5=259, 2=225, 4=212.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



September 17, 2021

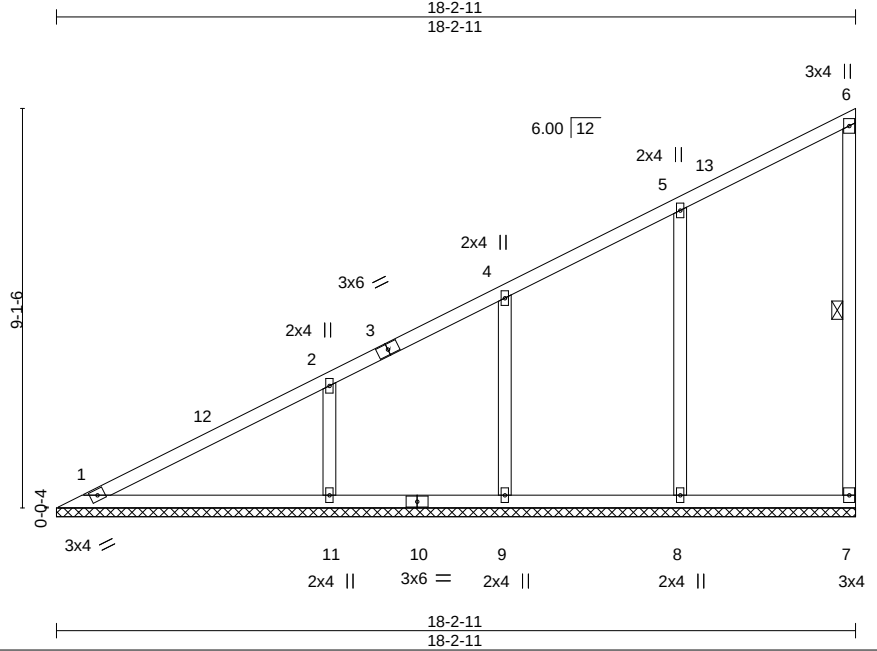
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V1	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

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LEE'S SUMMIT, MISSOURI

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:10 2021 Page 1
ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-CmzqGRm6SI9pqfSxeczB2gzWdp?G003Np3w0zydJ4Z



Scale = 1:52.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.45	Vert(LL) n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr YES	WB 0.25	Horz(CT) -0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 68 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 18-2-11.
(lb) - Max Horz 1=363(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 7 except 8=-137(LC 12), 9=-101(LC 12), 11=-179(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 7, 1 except 8=403(LC 1), 9=296(LC 1), 11=525(LC 1)

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

TOP CHORD 1-2=-459/276, 2-4=-333/210, 4-5=-256/190
WEBS 5-8=-313/207, 2-11=-394/217

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 18-0-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 8=137, 9=101, 11=179.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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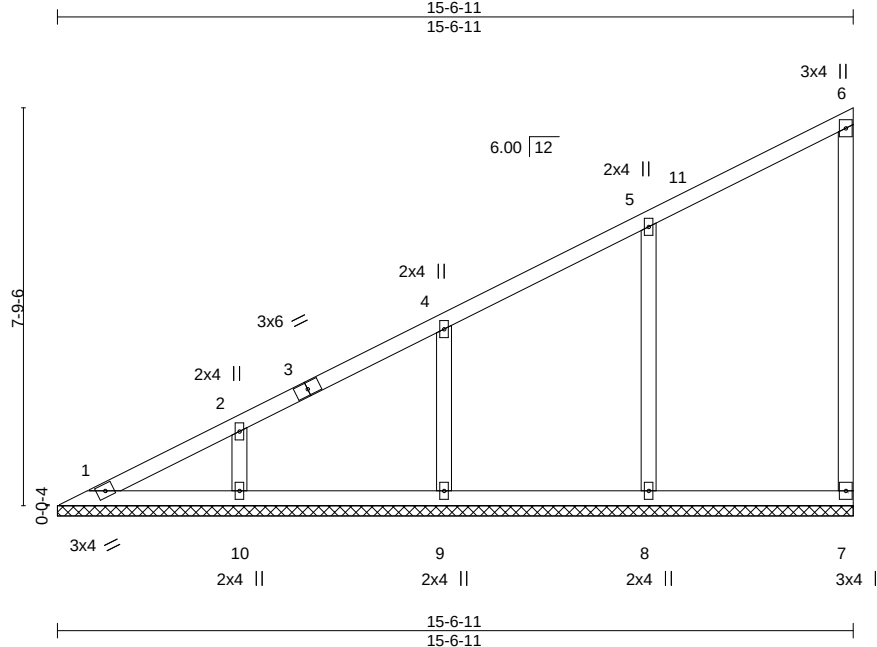


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V2	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

ID: pEI2tSnelCAFSbWVgXHdMlzCDRM-ZkmjK9qFHIwRwb7pkBB8u6nr_1X9xm60w4nhlmmyd40
 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:15 2021 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.34	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.15	WB 0.16	Horz(CT)	-0.00	7	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 56 lb	FT = 20%
	Code IRC2018/TPI2014							

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 15-6-11.
 (lb) - Max Horz 1=308(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 7 except 8=-132(LC 12), 9=-122(LC 12), 10=-119(LC 12)
 Max Grav All reactions 250 lb or less at joint(s) 7, 1 except 8=387(LC 1), 9=357(LC 1), 10=348(LC 1)

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

TOP CHORD 1-2=-432/246, 2-4=-344/211, 4-5=-251/176
 WEBS 5-8=-301/209, 4-9=-279/174, 2-10=-266/167

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-6-11, Interior(1) 3-6-11 to 15-4-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 8=132, 9=122, 10=119.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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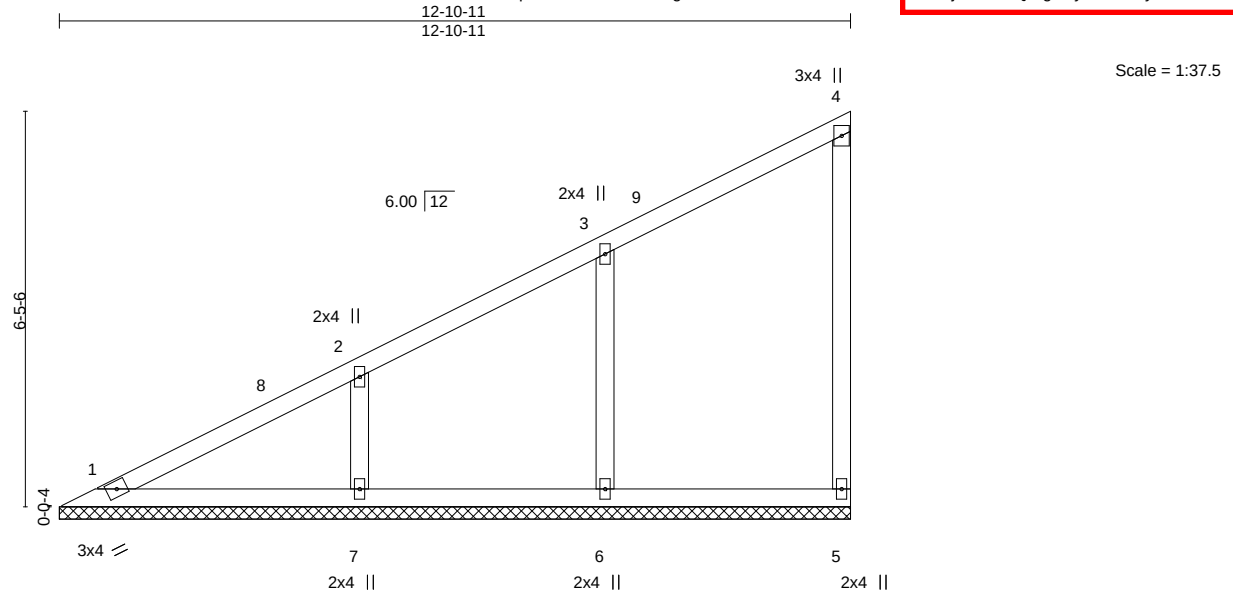


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V3	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:15 2021 Page 1					
ID:pEI2tSnelCAFSbWVGXHdMlzCDRM-1wK5XVrt2b2Xli0HvjNrwZaQurgESyKWEKCyJ4T					
Job Reference (optional)					

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10/11/2021



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.23	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.12	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: 44 lb	FT = 20%

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

REACTIONS.	All bearings 12-10-11.
(lb) - Max Horz	1=252(LC 9)
Max Uplift	All uplift 100 lb or less at joint(s) 5 except 6=-125(LC 12), 7=-143(LC 12)
Max Grav	All reactions 250 lb or less at joint(s) 1, 5 except 6=368(LC 1), 7=419(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-359/215
WEBS	3-6=-290/215, 2-7=-317/221

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 12-8-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Gable requires continuous bottom chord bearing.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 6=125, 7=143.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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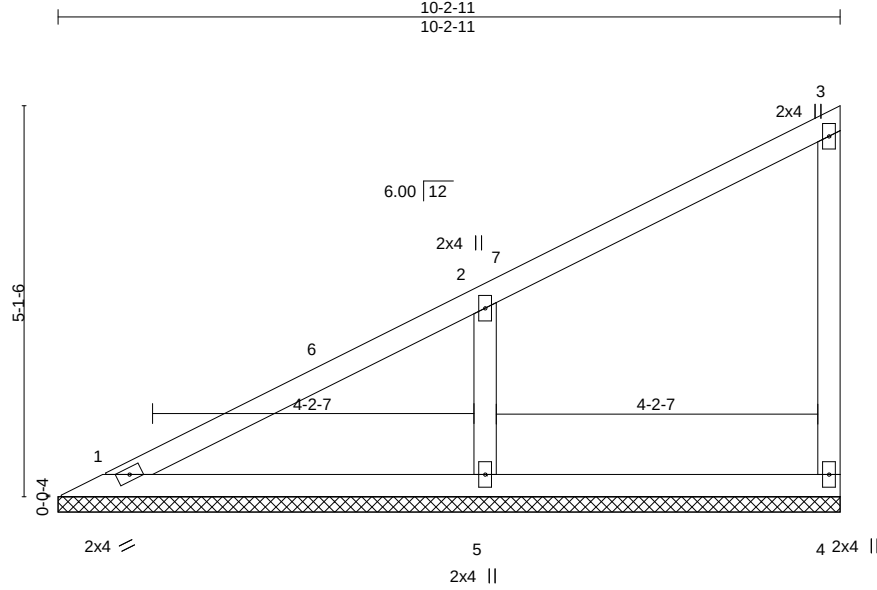
Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V4	Valley	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:16 2021 Page 1

ID:pEI2tSnelCAFSbWVgXHdMizCDRM-1wK5XVrt2E2IXli0HvjwRw0QdgFyKWEKCyJ4T

10/11/2021



Scale = 1:30.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 32 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=10-2-11, 4=10-2-11, 5=10-2-11
Max Horz 1=197(LC 11)
Max Uplift 4=-38(LC 9), 5=-145(LC 12)
Max Grav 1=178(LC 1), 4=152(LC 1), 5=521(LC 1)

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

TOP CHORD 1-2=-280/182
WEBS 2-5=-396/280

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 10-0-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=145.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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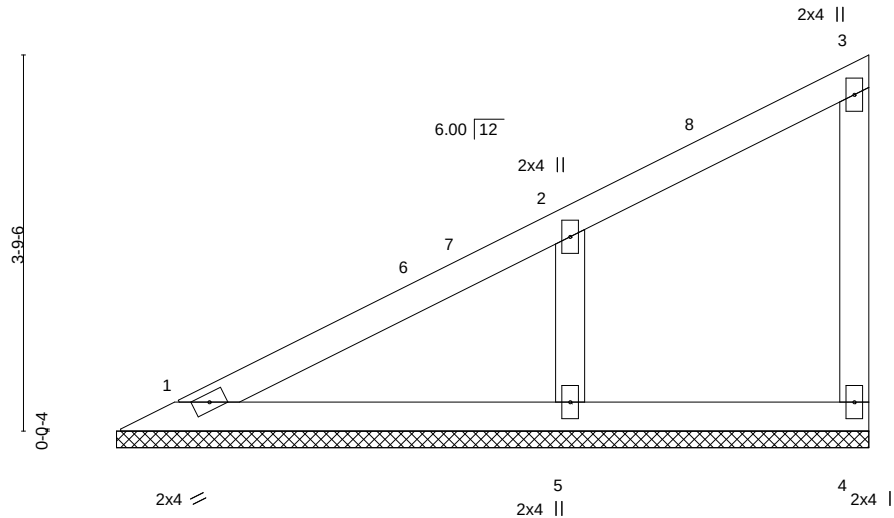


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V5	GABLE	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:17 2021 Page 1					
ID: pEI2tSnelCAFSbWVgXHdMlzCDRM-V6uTlrrVpvA99vHCrcEcwTbDqE3rHMS_OGmsty.dJ4S					
Job Reference (optional)					

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10/11/2021



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	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					Weight: 23 lb	FT = 20%
	Code IRC2018/TPI2014							

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-6-11, 4=7-6-11, 5=7-6-11
Max Horz 1=141(LC 9)
Max Uplift 4=-24(LC 9), 5=-125(LC 12)
Max Grav 1=142(LC 1), 4=80(LC 1), 5=389(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-302/267

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-4-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=125.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

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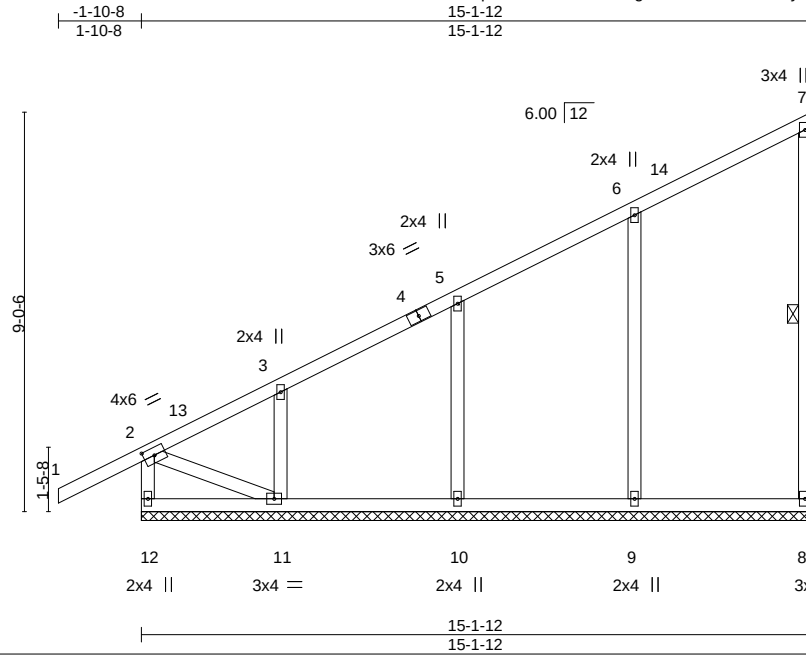


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V6	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
Job Reference (optional)					

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

10/11/2021



Scale = 1:52.1

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	0.01	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	-0.01	1	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.24	Horz(CT)	-0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 68 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

REACTIONS.

All bearings 15-1-12.
(lb) - Max Horz 12=375(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 12, 8 except 9=132(LC 12), 10=124(LC 12), 11=192(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 8 except 12=349(LC 20), 9=386(LC 1), 10=364(LC 1), 11=290(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-12=-325/89, 2-3=-447/261, 3-5=-363/231, 5-6=-269/196
BOT CHORD 11-12=-536/346
WEBS 6-9=-300/220, 5-10=-285/186, 2-11=-254/476

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 15-0-0 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) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 8 except (jt=lb) 9=132, 10=124, 11=192.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

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Chesterfield, MO 63017

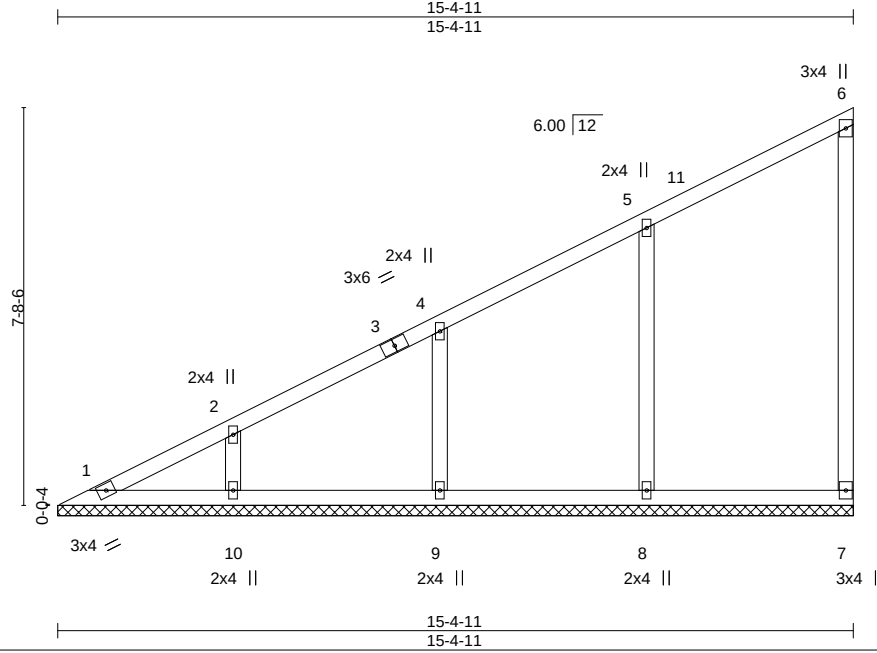
Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V7	Valley	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:18 2021 Page 1
ID: pEI2tSneICAFsbWVgXHdMizCDRM-zlSsyAs8aDI0n2sOPKlrWjPMMEZv67yEC2?L05yQJ4R

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

10/11/2021



Scale = 1:44.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 55 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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 15-4-11.

(lb) - Max Horz 1=304(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 7 except 8=-131(LC 12), 9=-122(LC 12), 10=-116(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 7, 1 except 8=386(LC 1), 9=359(LC 1), 10=339(LC 1)

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

TOP CHORD 1-2=-430/245, 2-4=-344/211, 4-5=-251/175

WEBS 5-8=-301/210, 4-9=-280/176, 2-10=-261/164

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-4-11, Interior(1) 3-4-11 to 15-2-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 8=131, 9=122, 10=116.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

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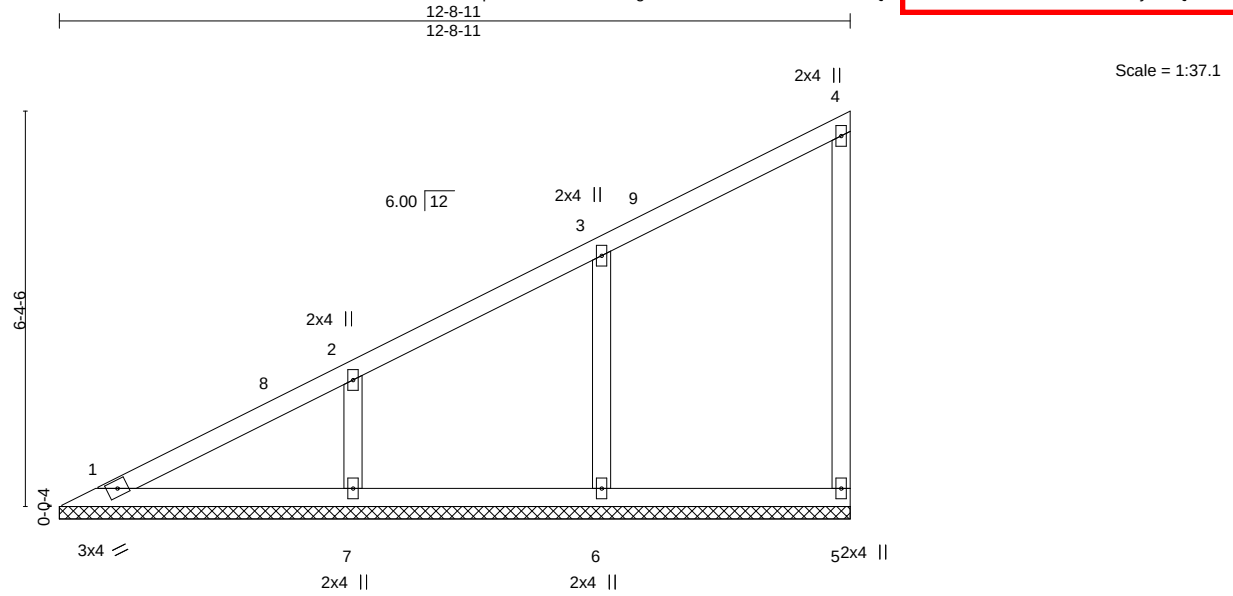


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V8	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 43 lb	FT = 20%

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

REACTIONS.	
All bearings 12-8-11.	
(lb) - Max Horz 1=249(LC 9)	
Max Uplift All uplift 100 lb or less at joint(s) 5 except 6=-126(LC 12), 7=-139(LC 12)	
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=372(LC 1), 7=408(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-356/213
WEBS	3-6=-292/218, 2-7=-309/217

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 12-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Gable requires continuous bottom chord bearing.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 6=126, 7=139.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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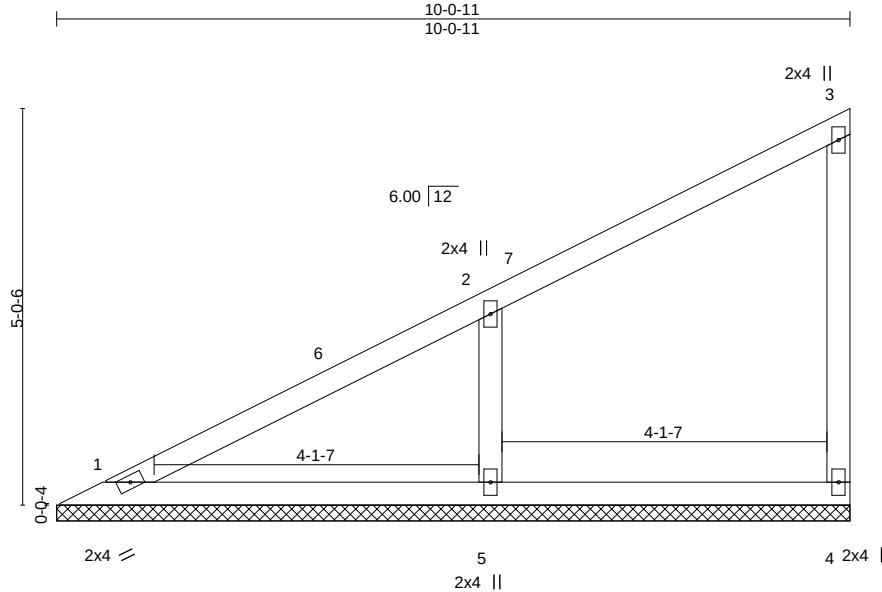
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V9	GABLE	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:19 2021 Page 1					
ID:pEI2tSnelCAFSbWVgXHdMizCDRM-RV0E9WtmLWQtCCRbz1C42x1XHevntCfRilawXyJ4Q					
Job Reference (optional)					

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10/11/2021



Scale = 1:29.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	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: 31 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=10-0-11, 4=10-0-11, 5=10-0-11
Max Horz 1=193(LC 9)
Max Uplift 4=-38(LC 9), 5=-144(LC 12)
Max Grav 1=175(LC 1), 4=149(LC 1), 5=511(LC 1)

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

TOP CHORD 1-2=-277/179
WEBS 2-5=-389/277

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 9-10-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=144.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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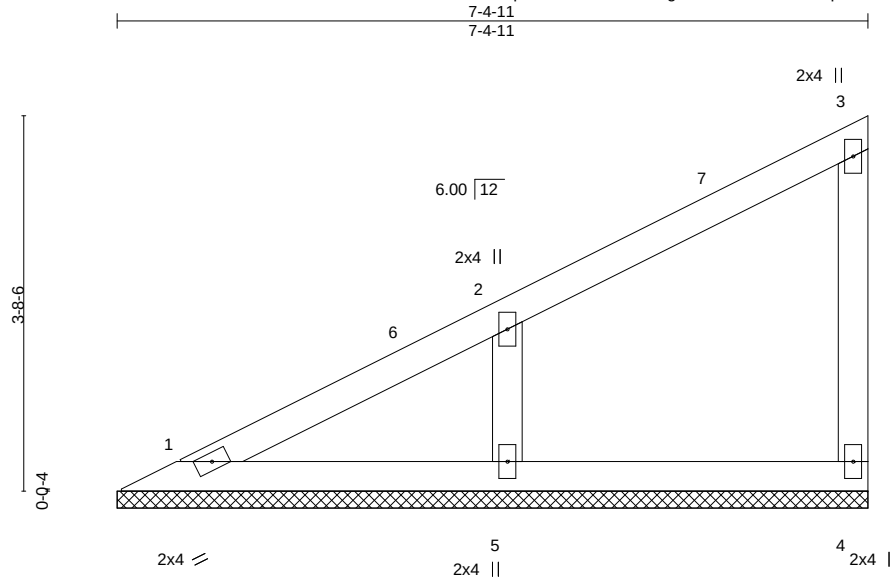


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V10	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:10 2021 Page 1					
ID:pEl2tSnelCAFSbWVgXHdMizCDRM-CmzqGRm6SI9nqF5xccc2Qz60rsCXf3Np3w6ZyJ4Z					
Job Reference (optional)					

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DEVELOPMENT SERVICES
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10/11/2021



Scale = 1:22.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	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=7-4-11, 4=7-4-11, 5=7-4-11
Max Horz 1=138(LC 9)
Max Uplift 4=-28(LC 9), 5=-122(LC 12)
Max Grav 1=111(LC 20), 4=117(LC 1), 5=372(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-289/259

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-10-2, Interior(1) 3-10-2 to 7-2-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=122.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

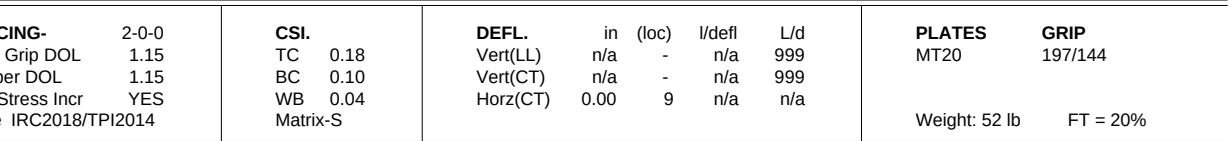
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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:08:11 2021 Page 1
ID:pE12tSnIcAF5bWVqXhDMlZCDRM-gvXCUnpID3O0R p:VM7CKf5DPWPB0-zCp1p7c2VdJ4Y



REACTIONS. All bearings 11-4-15.
(lb) - Max Horz 1=222(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 9, 10, 11, 12, 13, 14, 15
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 10, 11, 12, 13, 14 except 15=256(LC 1)

NOTES-

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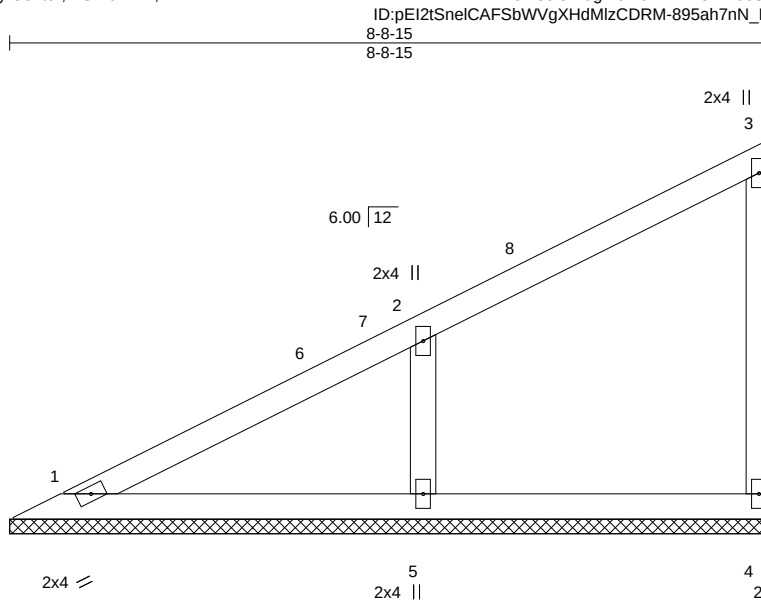
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V12	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

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

10/11/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 27 lb	FT = 20%

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

REACTIONS. (size) 1=8-8-15, 4=8-8-15, 5=8-8-15
Max Horz 1=166(LC 9)
Max Uplift 4=-32(LC 9), 5=-135(LC 12)
Max Grav 1=144(LC 20), 4=127(LC 1), 5=448(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-261/169
WEBS 2-5=-349/273

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 8-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Gable requires continuous bottom chord bearing.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=135.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



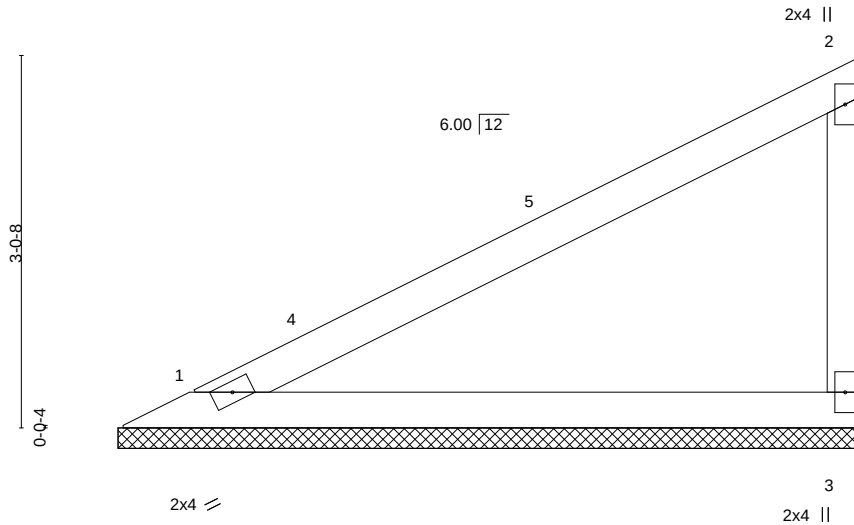
September 17, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V13	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:12 2021 Page 1					
Job Reference (optional)					

ID:pEI2tSnelCAFSbWVgXHDmizCDRM-895ah7nN_NYt370F23eRG-HlWpU7KnsMq7Y6bRydJ4x
 6-0-15
 6-0-15



Scale = 1:18.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 17 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-0-15, 3=6-0-15
 Max Horz 1=111(LC 9)
 Max Uplift 1=-40(LC 12), 3=-68(LC 12)
 Max Grav 1=239(LC 1), 3=239(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-11-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

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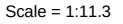
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, ID:pEI2tSnelCAFSbWVgXHdMlZCDRM-dLfzvTo?lg

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:08:13 2021 Page 1
ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-dLfzvTo?lggkGhZrCmssgggiazDzTuov3nfrarjyDj4w



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-4-15 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021



WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-743 (rev. 5/19/2020) BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI 1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.

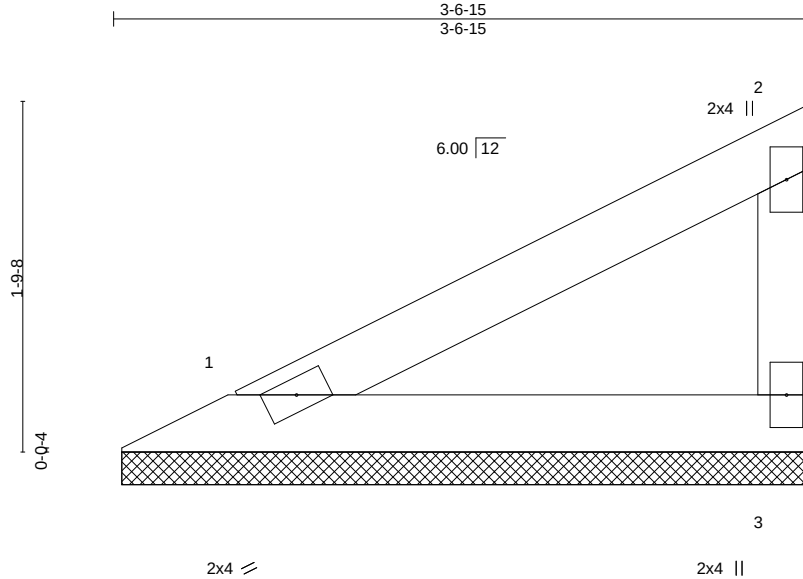


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V15	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:13 2021 Page 1					
ID:pEl2tSnelCAFSbWVgXHdMlzCDRM-dLfzvTo?lggkHHzRcmegpgZHDtFuov3mmyjd34w					
Job Reference (optional)					

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

10/11/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 9 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-6-7, 3=3-6-7
Max Horz 1=59(LC 9)
Max Uplift 1=-21(LC 12), 3=-36(LC 12)
Max Grav 1=126(LC 1), 3=126(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2021

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

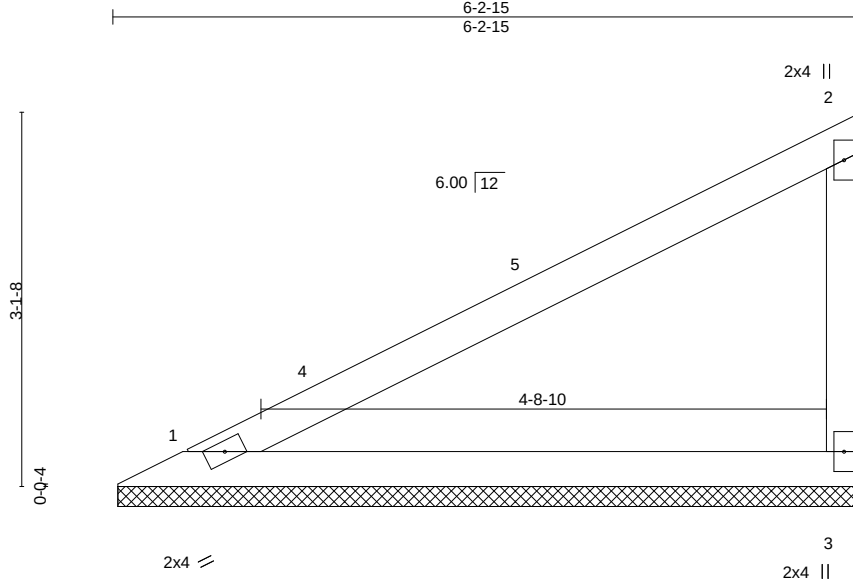
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V16	Valley	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
Job Reference (optional)					

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:14 2021 Page 1
 ID: pEl2tSneIcAFSbWVgXHdMlzCDRM-5XDL6ppdW_oblRyYdAugvLr0C69GCLm1Q17FKyJ4v



Scale = 1:19.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	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: 17 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-2-7, 3=6-2-7
 Max Horz 1=114(LC 9)
 Max Uplift 1=-38(LC 12), 3=-73(LC 12)
 Max Grav 1=246(LC 1), 3=246(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-1-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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



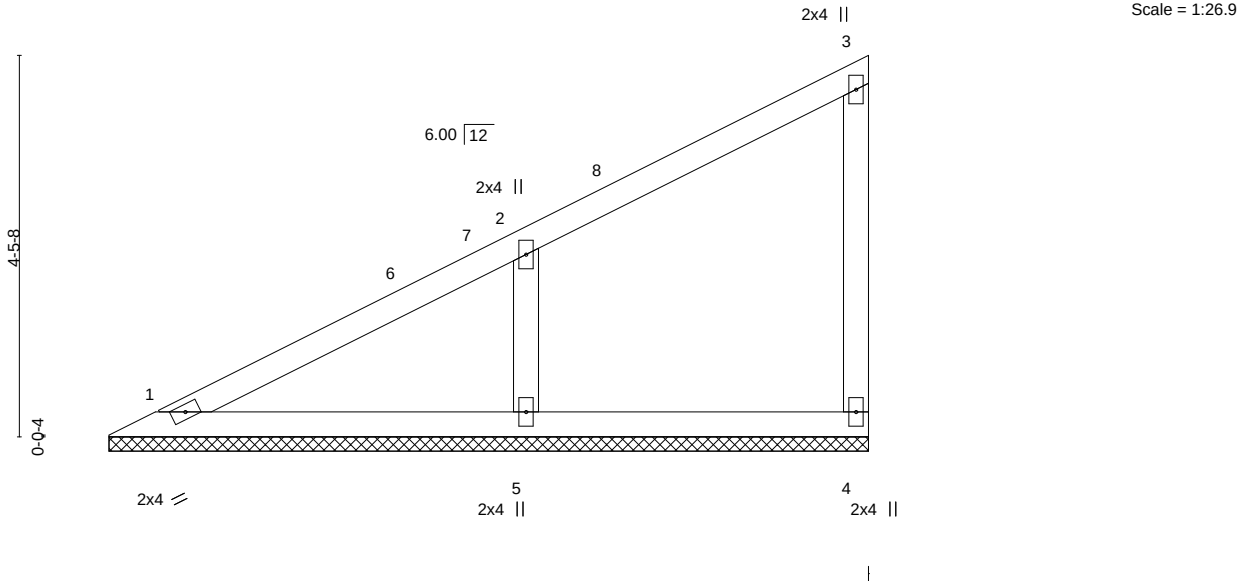
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/155 Hawthorn
2929204	V17	Valley	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 18:18:15 2021 Page 1

ID:pEI2tSnelCAFSbWVgXHdMlzCDRM-ZkmjK9qFHIwRwb7pkBB8u8ns12XHXopowWnhlmmyd40
8-10-15
8-10-15



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 27 lb	FT = 20%

LUMBER-			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				

REACTIONS. (size) 1=8-10-7, 4=8-10-7, 5=8-10-7
Max Horz 1=170(LC 9)
Max Uplift 4=-32(LC 9), 5=-136(LC 12)
Max Grav 1=150(LC 20), 4=125(LC 1), 5=458(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-262/171
WEBS 2-5=-356/275

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 8-9-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Gable requires continuous bottom chord bearing.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=136.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17,2021

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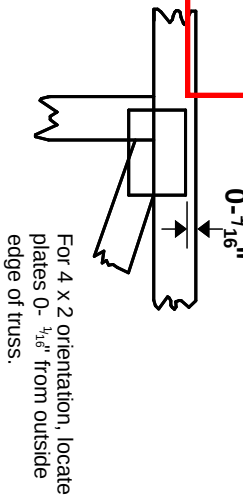
MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017

10/11/2021

Symbols

PLATE LOCATION AND ORIENTATION

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



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

*** Plate location details available in MITek 20120 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.

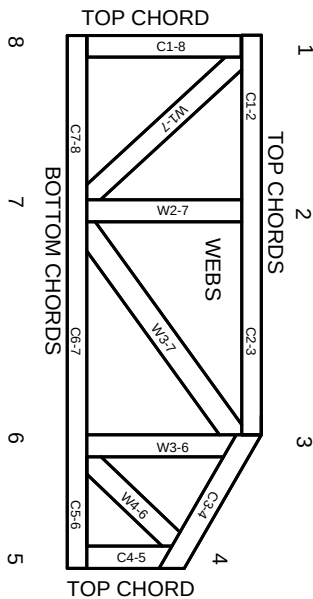
BEARING

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: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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