



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

Re: 2827360
SUMMIT/HAWTHORNE #10/MO

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Valley Center).

Pages or sheets covered by this seal: I46497994 thru I46498052

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

Missouri COA: Engineering 001193



June 10, 2021

Sevier, Scott, Engineer

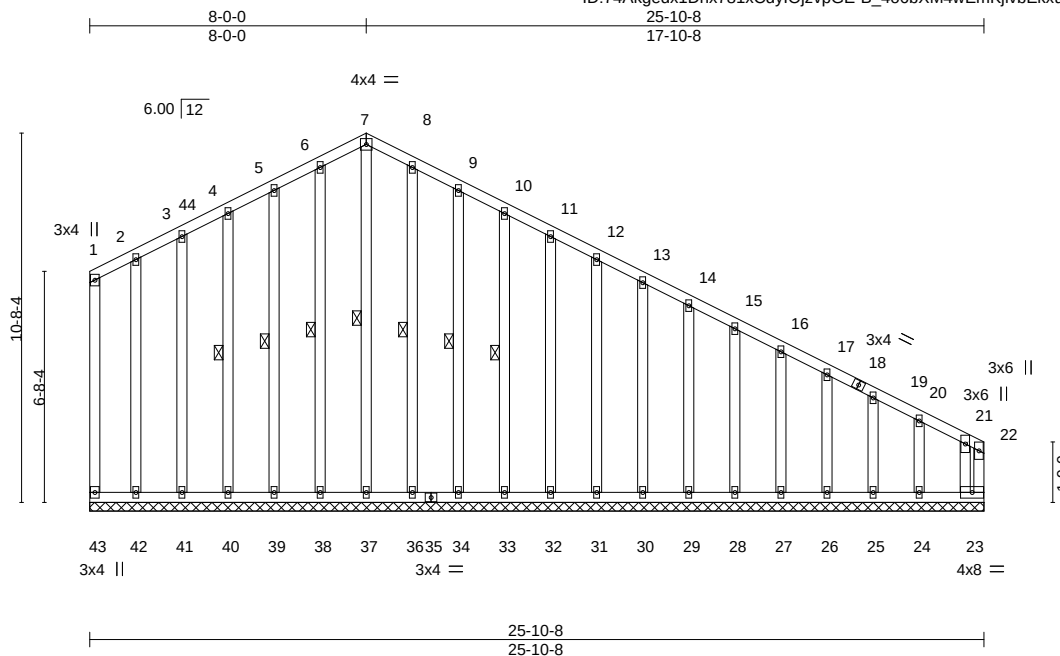
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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/HAWTHORNE #10/MO
2827360	A1	GABLE	1	1	146497994

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:06:41 2021 Page 1
ID:74Akgedx1Dhx781xCdyI0jzvpGE-B_4o6bXM4wEmKjlvbEkxuf5Nw_r4ksYha?Tjpbz80fS



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.01	23	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 210 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" oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.
WEBS 1 Row at midpt 7-37, 6-38, 5-39, 4-40, 8-36, 9-34, 10-33

REACTIONS.

All bearings 25-10-8.

(lb) - Max Horz 43=-314(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 43, 37, 38, 39, 40, 41, 42, 36, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25 except 23=-146(LC 11), 24=-421(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 43, 37, 38, 39, 40, 41, 42, 36, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25 except 23=420(LC 8), 24=250(LC 20)

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

TOP CHORD 5-6=-169/286, 6-7=-172/306, 7-8=-172/306, 8-9=-169/286, 20-21=-376/244, 22-23=-343/529

BOT CHORD 42-43=-198/303, 41-42=-198/303, 40-41=-198/303, 39-40=-198/303, 38-39=-198/303, 37-38=-198/303, 36-37=-198/303, 34-36=-198/303, 33-34=-198/303, 32-33=-198/303, 31-32=-198/303, 30-31=-198/303, 29-30=-198/303, 28-29=-198/303, 27-28=-198/303, 26-27=-198/303, 25-26=-198/303, 24-25=-198/303, 23-24=-198/303

WEBS 20-24=-272/401, 21-23=-868/546

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 3-1-12, Exterior(2N) 3-1-12 to 8-0-0, Corner(3R) 8-0-0 to 11-0-0, Exterior(2N) 11-0-0 to 25-8-12 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
- 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.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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) 43, 37, 38, 39, 40, 41, 42, 36, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25 except (jt=lb) 23=146, 24=421.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10, 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 2827360	Truss A2	Truss Type Roof Special	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146497995
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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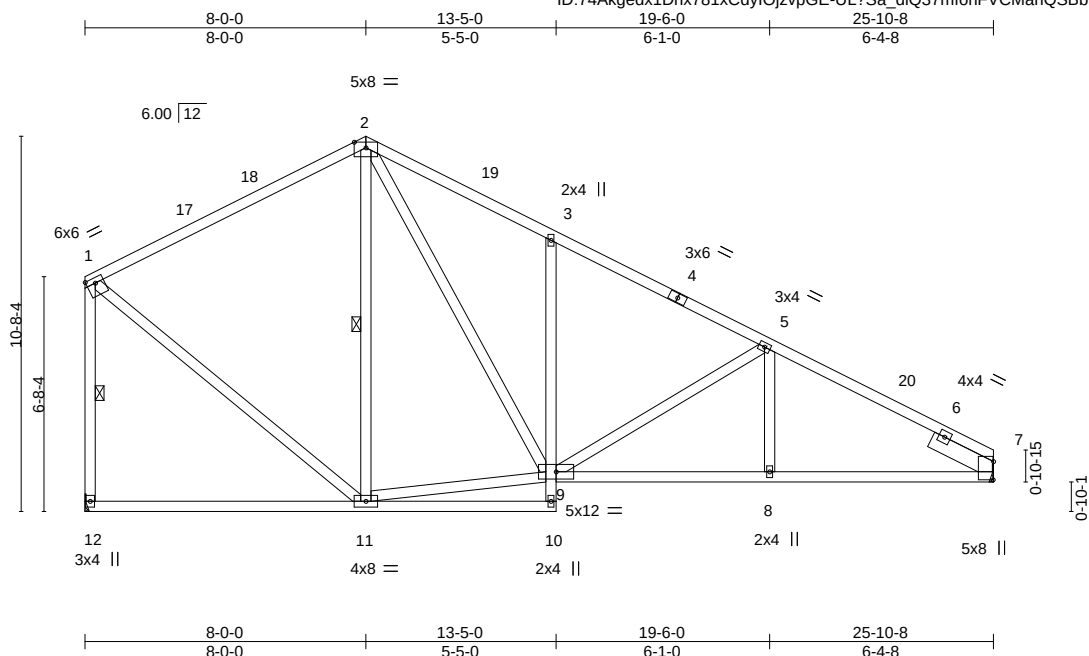


Plate Offsets (X,Y)-- [1:Edge,0-1-12], [7:0-6-4,0-0-2]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.10 11-12 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.20 11-12 >999 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.06 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 134 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 - t 2-0-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-11, 1-12

REACTIONS.

(size) 12=Mechanical, 7=Mechanical
Max Horz 12=300(LC 10)
Max Uplift 12=183(LC 13), 7=203(LC 13)
Max Grav 12=1158(LC 1), 7=1158(LC 1)

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

TOP CHORD 1-2=-829/272, 2-3=-1308/420, 3-5=-1340/321, 5-7=-1763/339, 1-12=-1082/281
BOT CHORD 3-9=-437/229, 8-9=-224/1495, 7-8=-224/1495
WEBS 2-11=-447/172, 9-11=0/605, 2-9=-307/978, 5-9=-450/198, 1-11=-178/778

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 3-1-12, Interior(1) 3-1-12 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 25-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=183, 7=203.
- 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.



June 10,2021

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

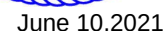
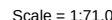
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO	I46497996
2827360	A3	Roof Special Girder	1	2	Job Reference (optional)	

- NOTES-**
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 25-11-4 from the left end to connect truss(es) to back face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.
 - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 208 lb down and 103 lb up at 29-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-3=-70, 3-8=-70, 8-11=-70, 11-12=-70, 12-13=-92, 20-22=-20, 19-23=-20
 - Concentrated Loads (lb)
 - Vert: 11=-86(B) 14=-208(B) 16=-788(B) 10=-86(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO	146497997
2827360	A4	Roof Special	1	1		

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

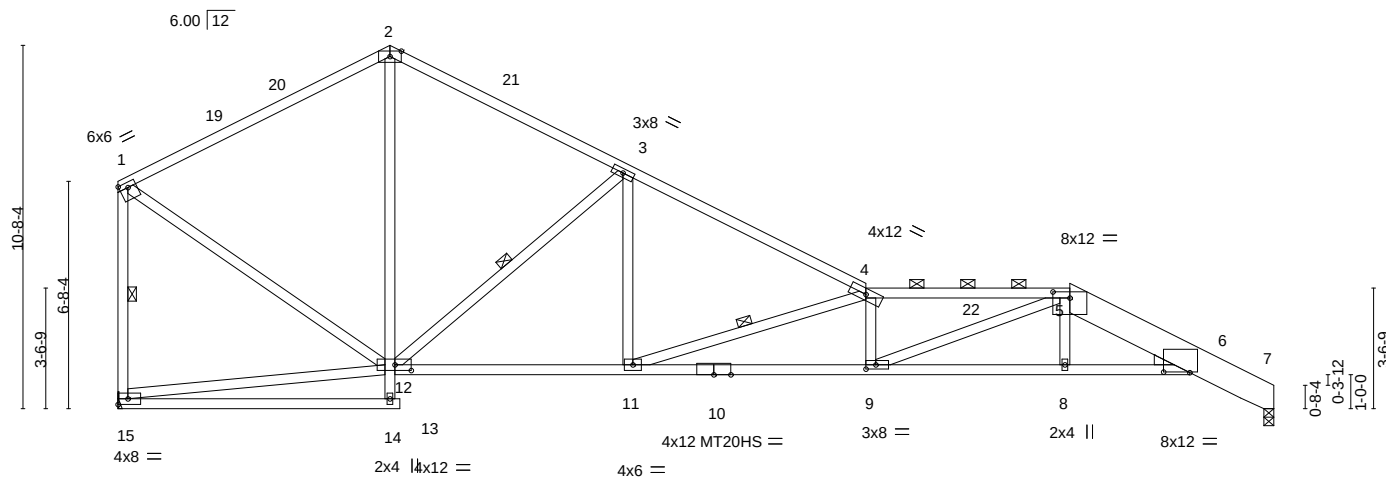
8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:06:51 2021 Page 1

ID:74Akgedx1Dhx781xCdytQjzvpGE-vwHaC0fdj_VLWFWqALwH24hiyEhQ31?7Q?4Ez80fl

8-0-0 15-0-0 22-0-0 28-0-0 31-6-5 34-0-0 34-10-8
8-0-0 7-0-0 7-0-0 6-0-0 3-6-5 2-5-11 0-10-8

4x8 =

Scale = 1:67.8



8-3-8 15-0-0 22-0-0 28-0-0 31-6-5 34-0-0
8-3-8 6-8-8 7-0-0 6-0-0 3-6-5 2-5-11

Plate Offsets (X,Y)--		[1:Edge,0-1-12], [5:0-6-0,0-2-3], [6:0-9-4,0-0-3], [9:0-3-8,0-1-8], [12:0-5-12,0-2-0]																			
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	0.81	Vert(LL)	-0.40	9-11	>999		240		MT20		197/144				
TCDL	10.0	Lumber DOL		1.15		BC	0.88	Vert(CT)	-0.74	9-11	>545		180		MT20HS		148/108				
BCLL	0.0	Rep Stress Incr		YES		WB	0.84	Horz(CT)	0.26	7	n/a		n/a								
BCDL	10.0	Code IRC2018/TPI2014				Matrix-AS												Weight: 173 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x4 SPF 1650F 1.5E, 5-7: 2x10 SP 2400F 2.0E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
13-15: 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-5-15 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-12, 4-11, 1-15

REACTIONS.

(size) 15=Mechanical, 7=0-3-8
Max Horz 15=-317(LC 10)
Max Uplift 15=-251(LC 13), 7=-295(LC 13)
Max Grav 15=1519(LC 1), 7=1523(LC 1)

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

TOP CHORD 1-2=-1249/304, 2-3=-1255/329, 3-4=-2592/469, 4-5=-5068/952, 5-6=-3563/679,
6-7=-671/154, 1-15=-1431/279
BOT CHORD 11-12=-224/2221, 9-11=-836/5101, 8-9=-554/3372, 6-8=-556/3363
WEBS 3-12=-1582/432, 3-11=-143/1124, 4-11=-3032/662, 4-9=-556/165, 5-9=-291/1814,
2-12=-105/574, 12-15=-153/277, 1-12=-192/1175

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 3-1-12, Interior(1) 3-1-12 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 28-0-0, Exterior(2R) 28-0-0 to 31-0-13, Interior(1) 31-0-13 to 33-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) 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) 7 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) 15=251, 7=295.
- 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.



June 10,2021

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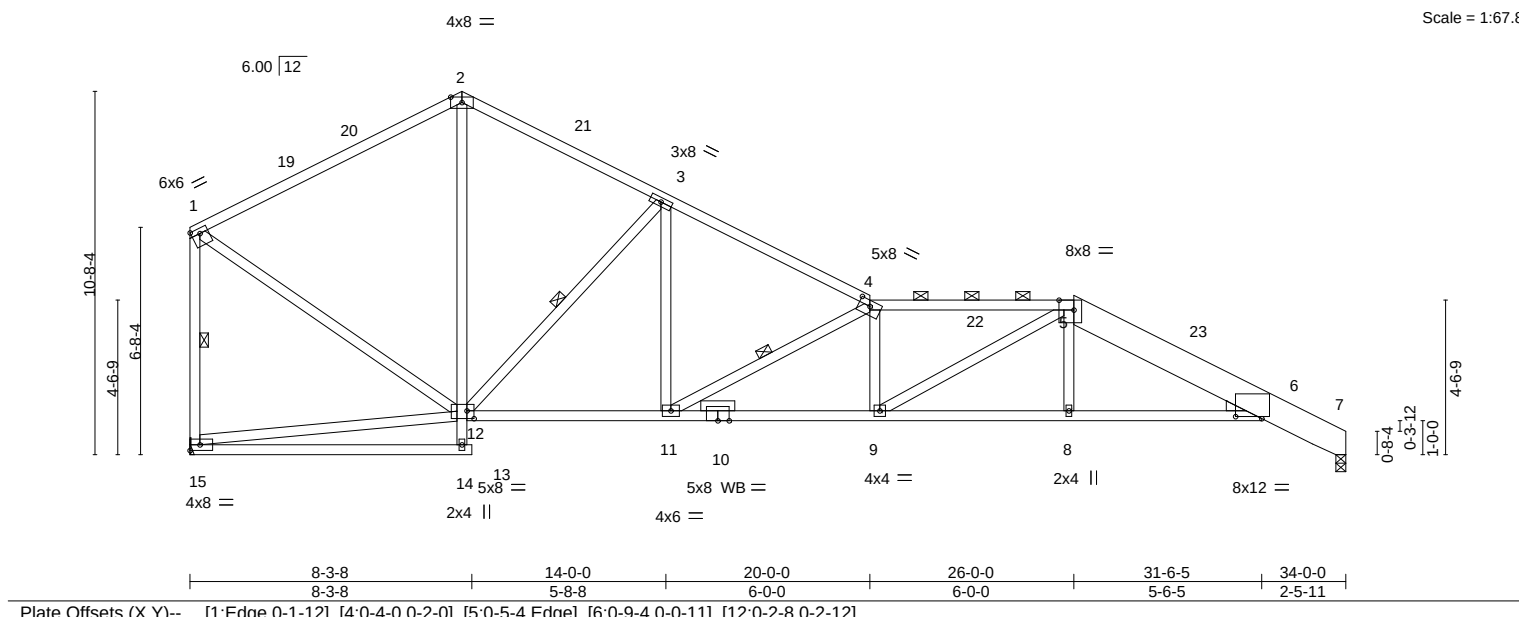
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO	146497998
2827360	A4A	Roof Special	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:06:53 2021 Page 1
ID:74Akgedx1Dhx781xCdyI0jzvpGE-rlpLdihuFbl3mZfDllylOT913lvgu2HJSRv587z80fG

8-0-0 14-0-0 20-0-0 26-0-0 31-6-5 34-0-0 34-10-8
8-0-0 6-0-0 6-0-0 6-0-0 5-6-5 2-5-11 0-10-8

Scale = 1:67.8



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 0.82	Vert(LL)	-0.28	9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.50	9-11	>805		
BCLL 0.0	Rep Stress Incr	YES	WB 0.52	Horz(CT)	0.23	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 183 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-7: 2x10 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-3-6 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-12, 4-11, 1-15

REACTIONS.

(size) 15=Mechanical, 7=0-3-8
Max Horz 15=-317(LC 10)
Max Uplift 15=-251(LC 13), 7=-295(LC 13)
Max Grav 15=1519(LC 1), 7=1523(LC 1)

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

TOP CHORD 1-2=-1248/306, 2-3=-1231/334, 3-4=-2322/436, 4-5=-3771/723, 5-6=-3136/592,
6-7=-671/154, 1-15=-1431/282
BOT CHORD 11-12=-185/1988, 9-11=-560/3785, 8-9=-437/2898, 6-8=-439/2892
WEBS 3-12=-1437/396, 3-11=-172/1133, 4-11=-2052/473, 4-9=-386/122, 5-9=-143/996,
12-15=-153/276, 1-12=-194/1173, 2-12=-120/601

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
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- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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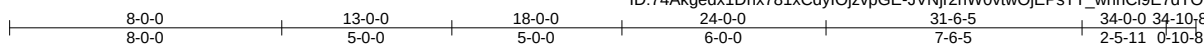
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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO	146497999
2827360	A4B	Roof Special	1	1	Job Reference (optional)	

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

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ID:74Akgedx1Dhx781xCdyI0jzvpGE-JVNjr2hW0vtwOjEPsTT_WhhC19E7dTOTh5efhZz80fF



4x8 =

Scale = 1:67.7

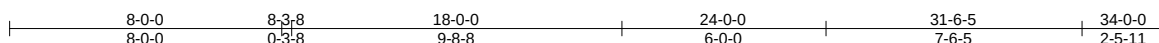
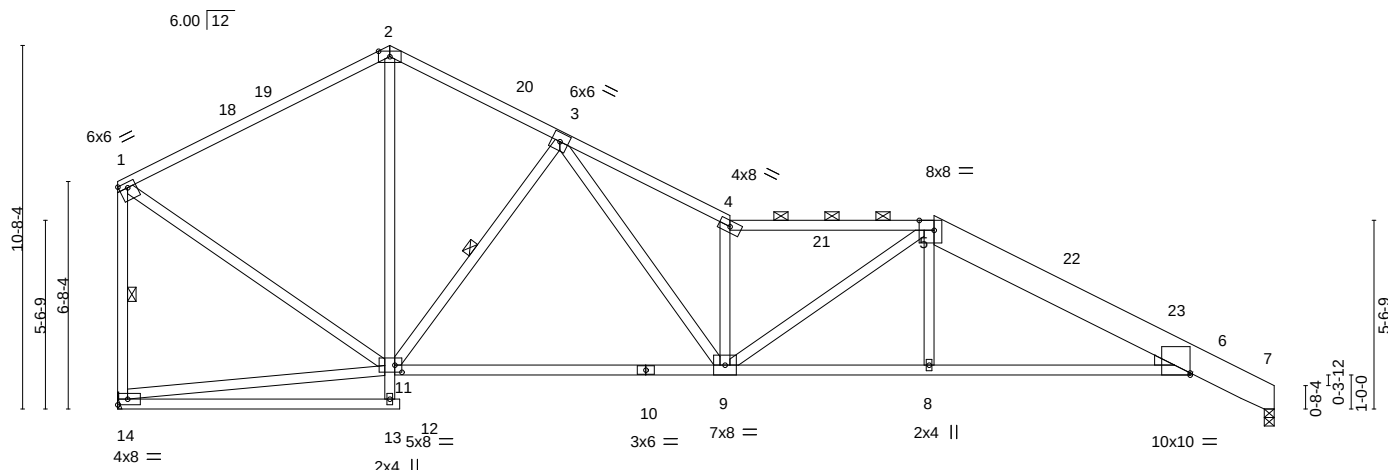


Plate Offsets (X,Y)--		[1:Edge,0-1-12], [5:0-5-4,Edge], [6:Edge,0-0-12], [11:0-2-8,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.38	9-11	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.85	9-11	>476	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.21	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 186 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-7: 2x10 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-10-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-11, 1-14

REACTIONS.

(size) 14=Mechanical, 7=0-3-8
Max Horz 14=-317(LC 10)
Max Uplift 14=-251(LC 13), 7=-295(LC 13)
Max Grav 14=1519(LC 1), 7=1523(LC 1)

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

TOP CHORD 1-2=-1248/313, 2-3=-1209/346, 3-4=-3405/703, 4-5=-3026/579, 5-6=-2829/530,
6-7=-671/154, 1-14=-1431/292
BOT CHORD 9-11=-167/1752, 8-9=-350/2565, 6-8=-351/2560
WEBS 3-11=-1285/391, 3-9=-437/2096, 4-9=-1849/457, 5-9=-63/558, 1-11=-201/1171,
11-14=-152/279, 2-11=-135/630

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) 0-1-12 to 3-6-9, Interior(1) 3-6-9 to 8-0-0, Exterior(2R) 8-0-0 to 11-4-13, Interior(1) 11-4-13 to 24-0-0, Exterior(2R) 24-0-0 to 27-4-13, Interior(1) 27-4-13 to 33-10-4 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.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=251, 7=295.
- This truss 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.



June 10, 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 2827360	Truss A5	Truss Type Roof Special Girder	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498000
Job Reference (optional)					

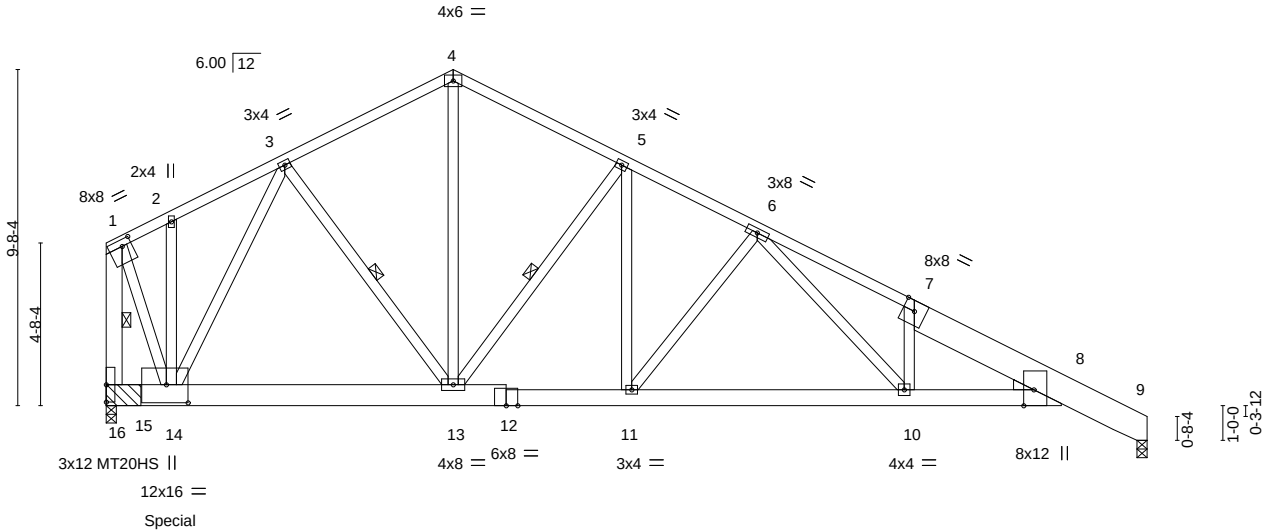
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:06:55 2021 Page 1

ID:74Akgedx1Dhx781xCdyI0jzvpGE-nhx52Ni8nD?m?spcPA_DTuER3ZaGMvCcvIOCD?z80fE

1-10-9	5-1-12	10-0-0	14-4-9	14-10-4	18-9-3	23-1-12	27-6-5	30-0-0
1-10-9	3-3-3	4-10-4	4-4-9	0-5-11	3-10-15	4-4-9	4-4-9	2-5-11

Scale = 1:66.4



1-10-9	5-1-12	10-0-0	14-4-9	14-10-4	18-9-3	23-1-12	27-6-5	30-0-0
1-10-9	3-3-3	4-10-4	4-4-9	0-5-11	3-10-15	4-4-9	4-4-9	2-5-11

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

LOADING (psf)		SPACING-2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.17	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.32	10-11	>999	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.14	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 206 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 2-9-13 oc purlins, except end verticals.
7-9: 2x10 SP 2400F 2.0E	
BOT CHORD 2x8 SP 2400F 2.0E *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
8-12: 2x6 SPF No.2	
WEBS 2x4 SPF No.2 *Except*	WEBS 1 Row at midpt 3-13, 5-13, 1-16
1-16: 2x6 SPF No.2, 1-14: 2x4 SPF 1650F 1.5E	
WEDGE Right: 2x4 SPF No.2	

REACTIONS. (size) 16=(0-3-8 + bearing block) (req. 0-4-7), 9=0-3-8
Max Horz 16=-268(LC 4)
Max Uplift 16=-959(LC 9), 9=-292(LC 9)
Max Grav 16=5368(LC 1), 9=1576(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1828/367, 2-3=-1788/392, 3-4=-1741/413, 4-5=-1743/392, 5-6=-2284/468,
6-7=-3643/744, 7-8=-3474/613, 8-9=-695/153, 1-16=-4891/856
BOT CHORD 14-16=-85/284, 13-14=-189/1629, 11-13=-137/1997, 10-11=-282/2416, 8-10=-475/3227
WEBS 3-13=-449/307, 4-13=-254/1157, 5-13=-853/292, 7-10=-590/238, 1-14=-718/4246,
3-14=-790/503, 6-11=-695/238, 6-10=-270/1169, 5-11=-133/614

- NOTES-**
- 2x8 SP 2400F 2.0E bearing block 12" long at jt. 16 attached to front face with 4 rows of 10d (0.131"x3") nails spaced 3" o.c. 16 Total fasteners. Bearing is assumed to be SP 2400F 2.0E.
 - 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
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 9 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) 16=959, 9=292.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4272 lb down and 832 lb up at 1-10-6 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).



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LOAD CASE(S) Standard

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO
2827360	A5	Roof Special Girder	1	1	I46498000
Job Reference (optional)					

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 4-8=-70, 8-9=-92, 16-17=-20

Concentrated Loads (lb)

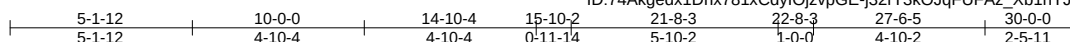
Vert: 14=-4272(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO
2827360	A6	Roof Special	3	1	146498001

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ID:74Akgedx1Dhx781xCdyLOjzvpGE-j32rT3kOJqFUFAz_Xb1hYJJkuMleqtavN3tJHuz80fC



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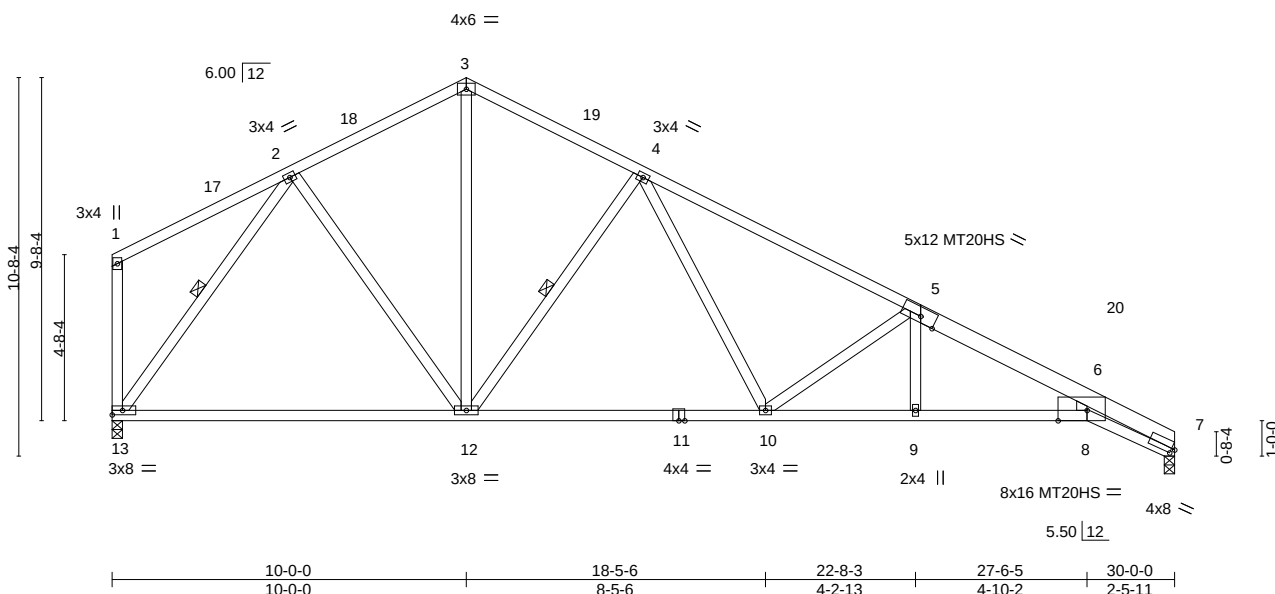


Plate Offsets (X,Y)--		[5:0-5-4,Edge], [7:0-1-2,0-1-10], [8:0-9-13,Edge]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.71		Vert(LL) -0.23 12-13 >999 240		MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.78		Vert(CT) -0.48 12-13 >753 180		MT20HS	148/108
BCLL 0.0		Rep Stress Incr YES		WB 0.50		Horz(CT) 0.19 7 n/a n/a			
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS				Weight: 139 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-7: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
11-13: 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-12, 2-13

REACTIONS.

(size) 7=0-3-8, 13=0-3-8
Max Horz 13=-267(LC 8)
Max Uplift 7=-249(LC 13), 13=-186(LC 13)
Max Grav 7=1343(LC 1), 13=1343(LC 1)

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

TOP CHORD 2-3=-1172/299, 3-4=-1179/317, 4-5=-2170/427, 5-6=-2877/541, 6-7=-3716/598
BOT CHORD 12-13=-43/806, 10-12=-101/1475, 9-10=-409/2665, 8-9=-410/2657, 7-8=-472/3154
WEBS 2-12=-17/370, 3-12=-170/673, 4-12=-865/329, 4-10=-148/758, 5-10=-1022/338,
6-8=-126/1177, 2-13=-1325/274

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 30-0-0 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
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=249, 13=186.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 10, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

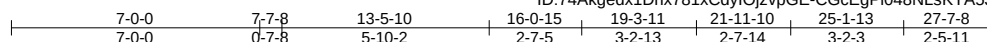
Job 2827360	Truss A7	Truss Type Roof Special	Qty 3	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498002
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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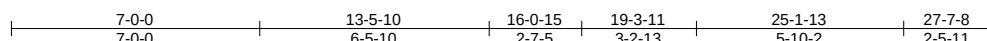
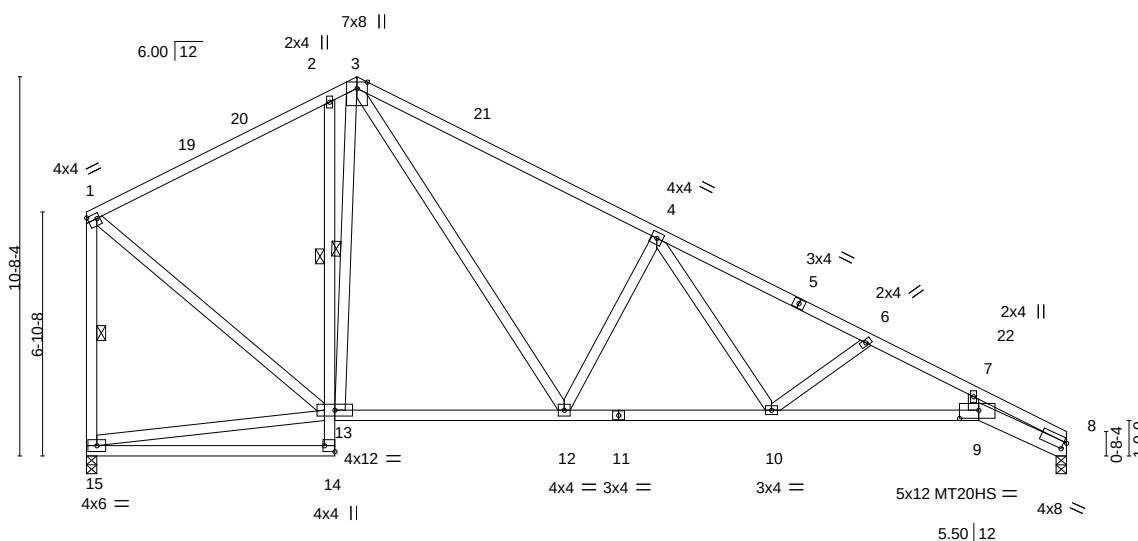


Plate Offsets (X,Y)-- [1:Edge,0-1-12], [8:0-0-15,0-2-7], [9:0-6-8,0-2-12], [14:Edge,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.89	Vert(LL)	-0.28	9-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.94	Vert(CT)	-0.54	9-10	>608	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.63	Horz(CT)	0.19	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 148 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-8: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
8-9: 2x6 SPF No.2, 9-11: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 2-13
WEBS 1 Row at midpt 1-15, 3-13

REACTIONS.

(size) 15=0-3-8, 8=0-3-8
Max Horz 15=-319(LC 10)
Max Uplift 15=-204(LC 13), 8=-225(LC 13)
Max Grav 15=1237(LC 1), 8=1237(LC 1)

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

TOP CHORD 1-2=-914/266, 2-3=-807/316, 3-4=-1572/401, 4-6=-2414/450, 6-7=-2811/520,
7-8=-3413/552, 1-15=-1173/245
BOT CHORD 2-13=-440/244, 12-13=0/748, 10-12=-182/1671, 9-10=-407/2629, 8-9=-440/2917
WEBS 7-9=-76/846, 1-13=-176/930, 3-13=-490/206, 3-12=-289/1017, 4-12=-854/344,
4-10=-131/760, 6-10=-698/234

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-7-8, Exterior(2R) 7-7-8 to 10-7-8, Interior(1) 10-7-8 to 27-7-8 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
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=204, 8=225.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



June 10,2021

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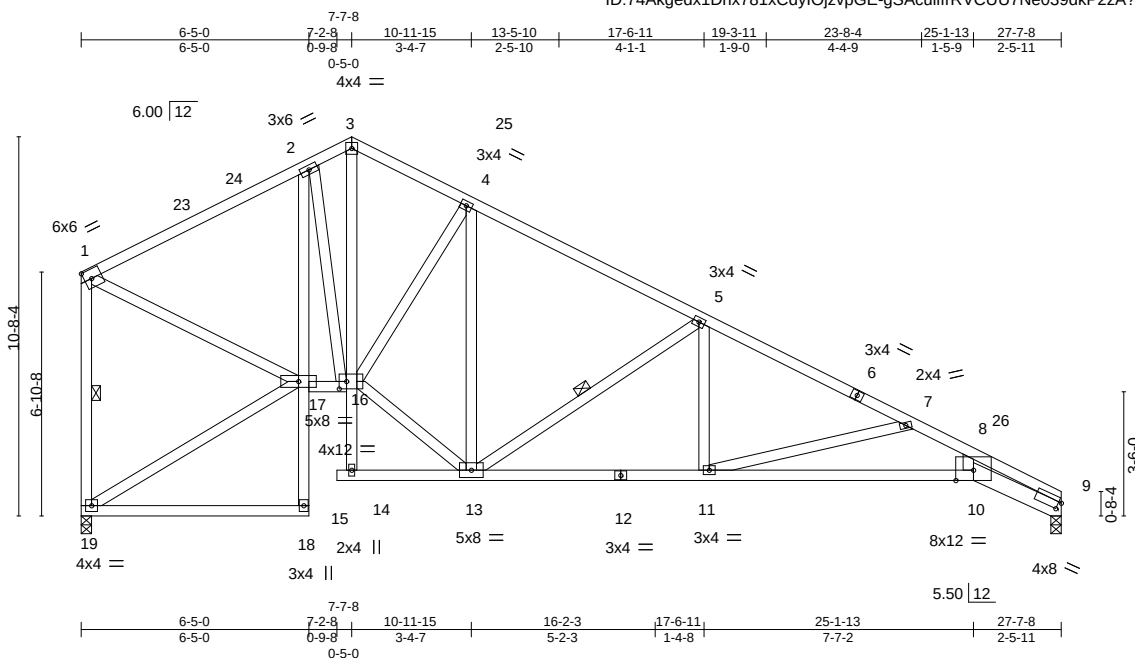
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO
2827360	A8	Roof Special	1	1	146498003

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

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ID:74Akgedx1Dhx781xCdyIOjzvpGE-gSAculfrVCUU7Ne039dkP2zA?tlj?CqNMQMmz80fA



Scale = 1:64.9

Plate Offsets (X,Y)--		[9:0-0-15,0-2-7], [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	0.80	Vert(LL)	-0.23 10-11 >999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.49 10-11 >669	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.21 9 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 163 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
6-9: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
9-10: 2x6 SPF 2100F 1.8E, 10-12: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 1-19, 5-13

REACTIONS.

(size) 9=0-3-8, 19=0-3-8
Max Horz 19=-319(LC 10)
Max Uplift 9=-225(LC 13), 19=-202(LC 13)
Max Grav 9=1238(LC 1), 19=1241(LC 1)

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

TOP CHORD 1-2=-1187/243, 2-3=-1178/312, 3-4=-1153/285, 4-5=-1321/313, 5-7=-2189/382,
7-8=-3156/605, 8-9=-3921/666, 1-19=-1181/189
BOT CHORD 2-17=-438/217, 16-17=0/980, 11-13=-204/1874, 10-11=-512/3046, 9-10=-556/3426
WEBS 8-10=-111/1108, 17-19=-192/301, 1-17=-77/1082, 3-16=-261/992, 13-16=-40/1328,
4-16=-289/334, 5-13=-948/287, 5-11=-22/518, 7-11=-1207/336

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-7-8, Exterior(2R) 7-7-8 to 10-7-8, Interior(1) 10-7-8 to 27-7-8 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=225, 19=202.
- This truss 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.



June 10,2021

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 2827360	Truss A10	Truss Type Roof Special	Qty 4	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498005
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:06:43 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-8NCZXHZccXUTZ0ulifmP_MkHHjXdYZXr9uUaoiz80fQ

6-1-0	7-7-8	14-1-0	15-1-0	17-0-8	21-2-4	25-4-0	27-7-8	28-6-0
6-1-0	1-6-8	6-5-8	1-0-0	1-11-8	4-1-12	4-1-12	2-3-8	0-10-8

Scale = 1:65.8

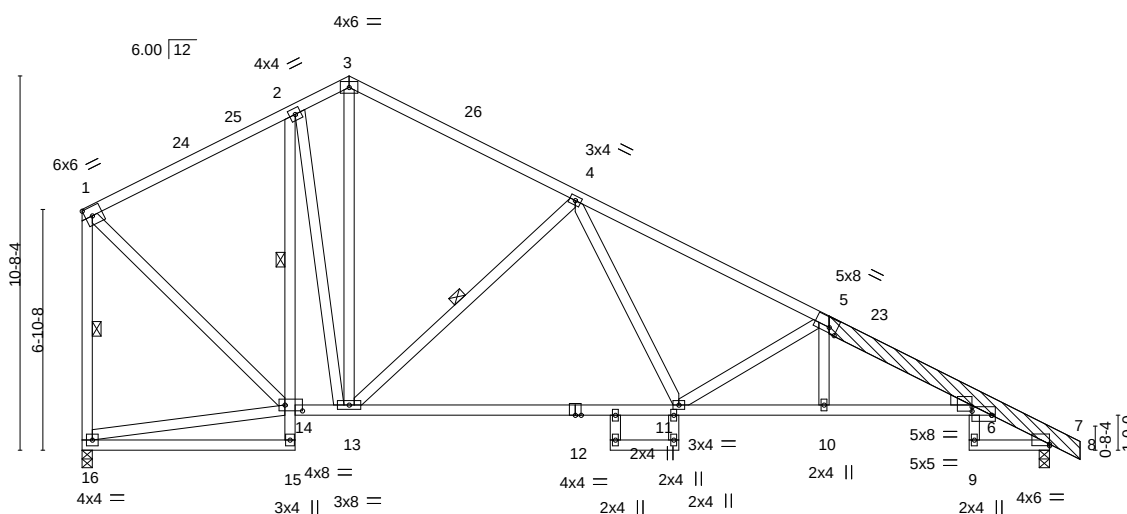


Plate Offsets (X, Y)--	[5:0-2-12,0-1-12], [6:0-6-12,0-2-14], [6:0-6-12,0-1-6], [7:0-0-0,0-0-9], [14:0-6-0,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.91	Vert(LL)	-0.21	6-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.47	11-13	>700		
BCLL 0.0	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.21	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 173 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 2-14
WEBS 1 Row at midpt 1-16, 4-13

REACTIONS.

(size) 16=0-3-8, 7=0-3-8
Max Horz 16=-329(LC 10)
Max Uplift 16=-203(LC 13), 7=-243(LC 13)
Max Grav 16=1236(LC 1), 7=1304(LC 1)

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

TOP CHORD 1-2=-846/253, 2-3=-866/301, 3-4=-945/281, 4-5=-2033/368, 5-6=-2687/484,
6-7=-592/139, 1-16=-1172/235
BOT CHORD 2-14=-662/152, 13-14=0/681, 11-13=-88/1414, 10-11=-357/2526, 6-10=-359/2527
WEBS 1-14=-171/924, 3-13=-163/507, 2-13=-54/480, 4-13=-925/334, 4-11=-97/691,
5-11=-942/309

NOTES-

- 1) Attached 8-2-14 scab 5 to 8, front face(s) 2x6 SPF No.2 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 3-11-7 from end at joint 5, nail 2 row(s) at 4" o.c. for 4-1-0.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-7-8, Exterior(2R) 7-7-8 to 10-7-8, Interior(1) 10-7-8 to 28-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=203, 7=243.
- 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.



June 10, 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/HAWTHORNE #10/MO
2827360	A12	GABLE	1	1	146498007

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:06:46 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-Yyuh9IbVvSt2QUdtOnK6b?Myfxi?1?2HrriEP1z80fN

7-4-0 7-4-0 27-4-0 27-4-0 28-2-8 0-10-8

Scale = 1:66.7

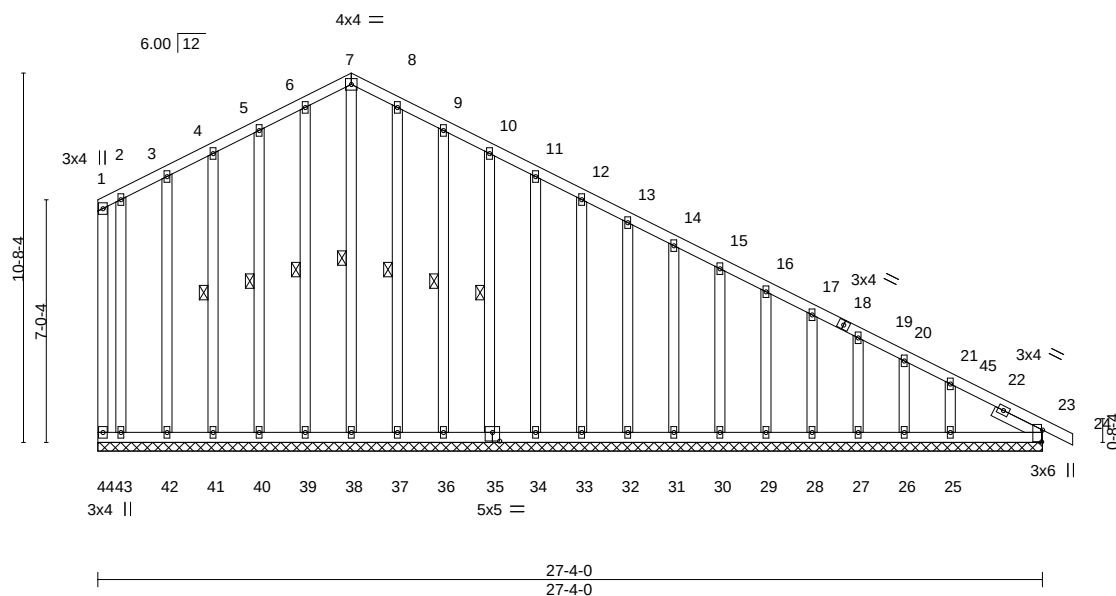


Plate Offsets (X,Y)-- [23:0-4-1,0-0-5], [35:0-2-8,0-3-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	0.00	23	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	0.00	24	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	23	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 216 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 -t 1-6-9

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 7-38, 6-39, 5-40, 4-41, 8-37, 9-36, 10-35

REACTIONS.

All bearings 27-4-0.
(lb) - Max Horz 44=330(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 44, 38, 39, 40, 41, 42, 43, 37, 36, 35, 34, 33, 32, 23, 31, 30, 29, 28, 27, 26 except 25=138(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 44, 38, 39, 40, 41, 42, 43, 37, 36, 35, 34, 33, 32, 23, 31, 30, 29, 28, 27, 26, 25

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 5-6=-168/271, 6-7=-171/291, 7-8=-171/291, 8-9=-168/271, 20-21=-262/167, 21-23=-358/215
BOT CHORD 43-44=-185/338, 42-43=-185/338, 41-42=-185/338, 40-41=-185/338, 39-40=-185/338, 38-39=-185/338, 37-38=-185/338, 36-37=-185/338, 35-36=-185/338, 34-35=-186/339, 33-34=-186/339, 32-33=-186/339, 31-32=-186/339, 30-31=-186/339, 29-30=-186/339, 28-29=-186/339, 27-28=-186/339, 26-27=-186/339, 25-26=-186/339, 23-25=-186/339

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 3-4-0, Exterior(2N) 3-4-0 to 7-4-0, Corner(3R) 7-4-0 to 10-4-0, Exterior(2N) 10-4-0 to 28-2-8 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 1-4-0 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) 44, 38, 39, 40, 41, 42, 43, 37, 36, 35, 34, 33, 32, 23, 31, 30, 29, 28, 27, 26 except (jt=lb) 25=138.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

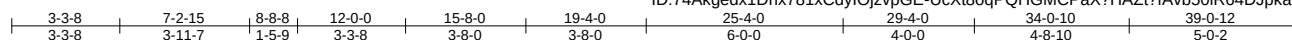


Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO	I46498008
2827360	B1	GABLE	1	1	Job Reference (optional)	

- NOTES-**
- 13) 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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Scale = 1:70.2

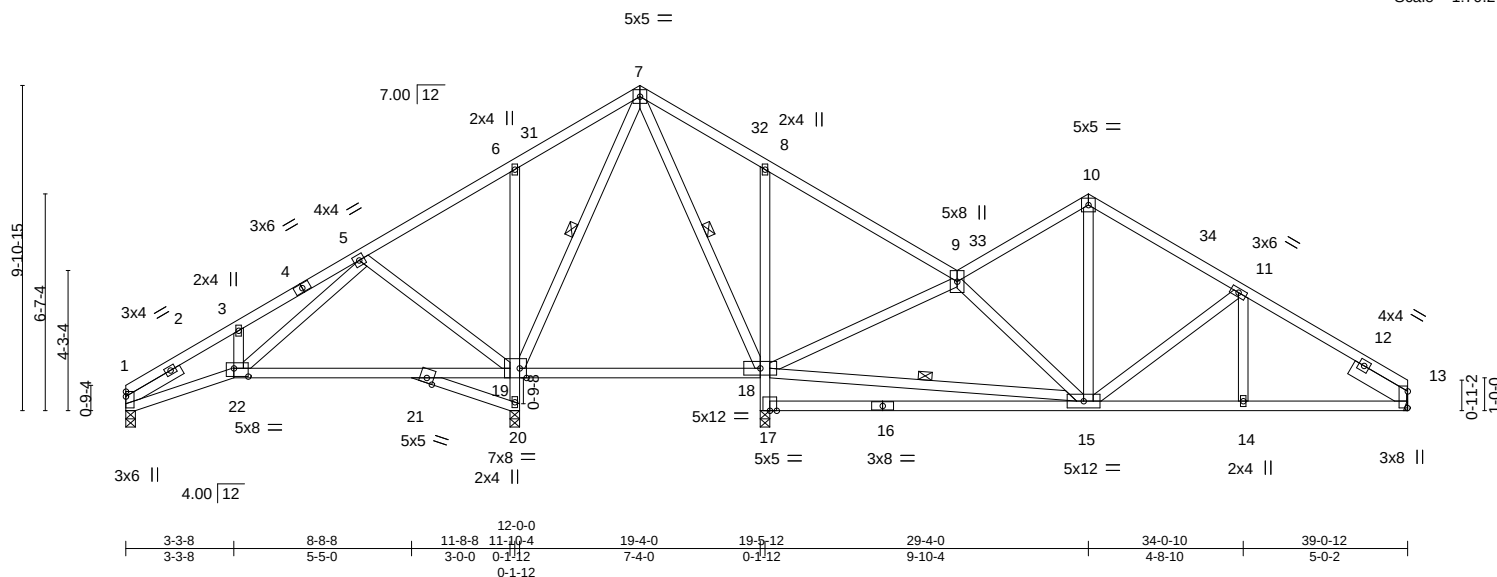


Plate Offsets (X,Y)-- [1:Edge,0-0-0], [13:0-6-2,0-0-2], [19:0-2-8,Edge], [22:0-5-4,0-3-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.20	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.40	15-17	>588	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.07	20	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 198 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	WEBS	1 Row at midpt 7-19, 7-18, 15-18
SLIDER	Left 2x4 SPF No.2 -t 2-0-0. Right 2x6 SPF No.2 -t 2-0-0		

REACTIONS. All bearings 0-3-8 except (jt=length) 13=Mechanical.
(lb) - Max Horz 1=238(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 13=-155(LC 13), 20=-288(LC 12), 17=-374(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except 13=717(LC 26), 1=314(LC 25), 20=1142(LC 19),
17=1504(LC 26)

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

TOP CHORD
1-3=-545/104, 3-5=-563/216, 5-6=-112/618, 6-7=0/583, 7-8=0/661, 8-9=-93/712,
9-10=-613/204, 10-11=-617/195, 11-13=-895/228

BOT CHORD
1-22=-256/563, 19-20=-1074/315, 6-19=-326/197, 18-19=-347/249, 17-18=-1409/413,
8-18=-400/231, 14-15=-121/720, 13-14=-121/720

WEBS
7-19=-401/41, 7-18=-537/63, 15-18=-60/308, 9-18=-942/328, 10-15=-72/285,
5-22=-245/713, 5-19=-477/233, 11-15=-341/177

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 15-8-0, Exterior(2R) 15-8-0 to 18-8-0, Interior(1) 18-8-0 to 29-4-0, Exterior(2R) 29-4-0 to 32-4-0, Interior(1) 32-4-0 to 39-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 1, 20, 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 13=155, 20=288, 17=374.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 10.2021

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

WARNING – Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) BEFORE USE.
Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



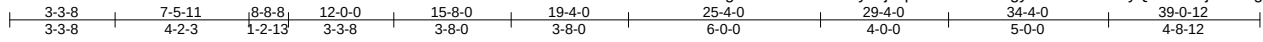
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO
2827360	B3	Roof Special	1	1	146498010

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:07 2021 Page 1

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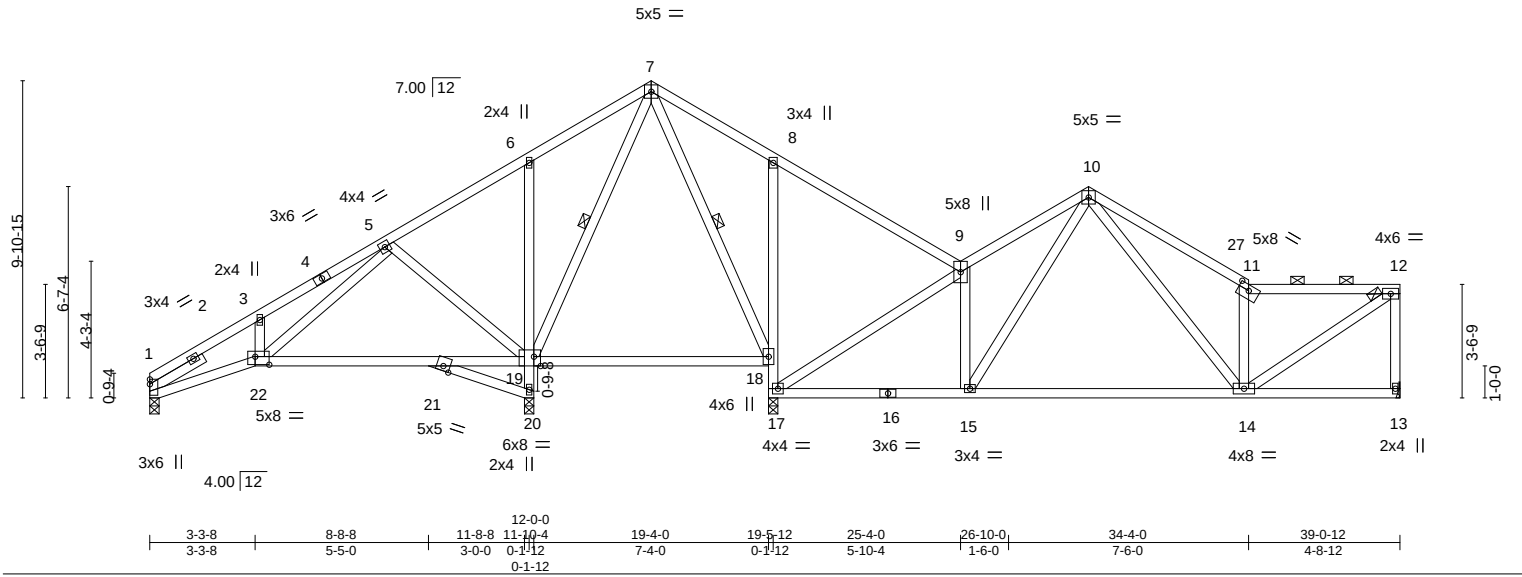


Plate Offsets (X,Y)--		[1:Edge,0-0-0], [11:0-4-0,0-2-1], [19:0-2-8,Edge], [22:0-5-4,0-3-0]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.12	14-15	>999	MT20	197/144		
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.25	14-15	>921				
BCLL 0.0	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.07	20	n/a				
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS								
								Weight: 195 lb	FT = 20%		

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (5-10-6 max.): 11-12.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Left 2x4 SPF No.2 -t 2-0-0	WEBS	1 Row at midpt 7-19, 7-18

REACTIONS.	
All bearings 0-3-8 except (jt=length) 13=Mechanical.	
(lb) - Max Horz	1=288(LC 11)
Max Uplift	All uplift 100 lb or less at joint(s) 1 except 13=-175(LC 13), 20=-321(LC 12), 17=-278(LC 13)
Max Grav	All reactions 250 lb or less at joint(s) except 13=784(LC 26), 1=334(LC 25), 20=1221(LC 19), 17=1295(LC 26)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-3=-604/138, 3-5=-625/254, 5-6=-130/551, 6-7=-56/519, 7-8=-16/353, 8-9=-49/380, 9-10=-860/333, 10-11=-1074/311, 11-12=-884/212, 12-13=-751/182
BOT CHORD	1-22=-268/638, 19-20=-1154/348, 6-19=-311/189, 17-18=-681/156, 8-18=-388/228, 15-17=-157/648, 14-15=-137/542
WEBS	7-19=-472/65, 10-15=-136/270, 10-14=-110/498, 11-14=-839/275, 12-14=-219/1038, 5-19=-472/231, 5-22=-262/753, 9-17=-1035/258

- 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 3-10-14, Interior(1) 3-10-14 to 15-8-0, Exterior(2R) 15-8-0 to 19-6-10, Interior(1) 19-6-10 to 29-4-0, Exterior(2R) 29-4-0 to 33-2-14, Interior(1) 33-2-14 to 38-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - 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) 1, 20 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) 1 except (jt=lb) 13=175, 20=321, 17=278.
 - This truss 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.



June 10,2021

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

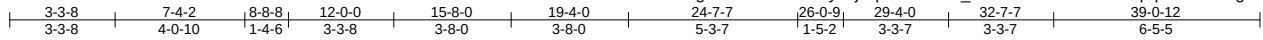
MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO
2827360	B4	Roof Special	1	1	146498011
Job Reference (optional)					

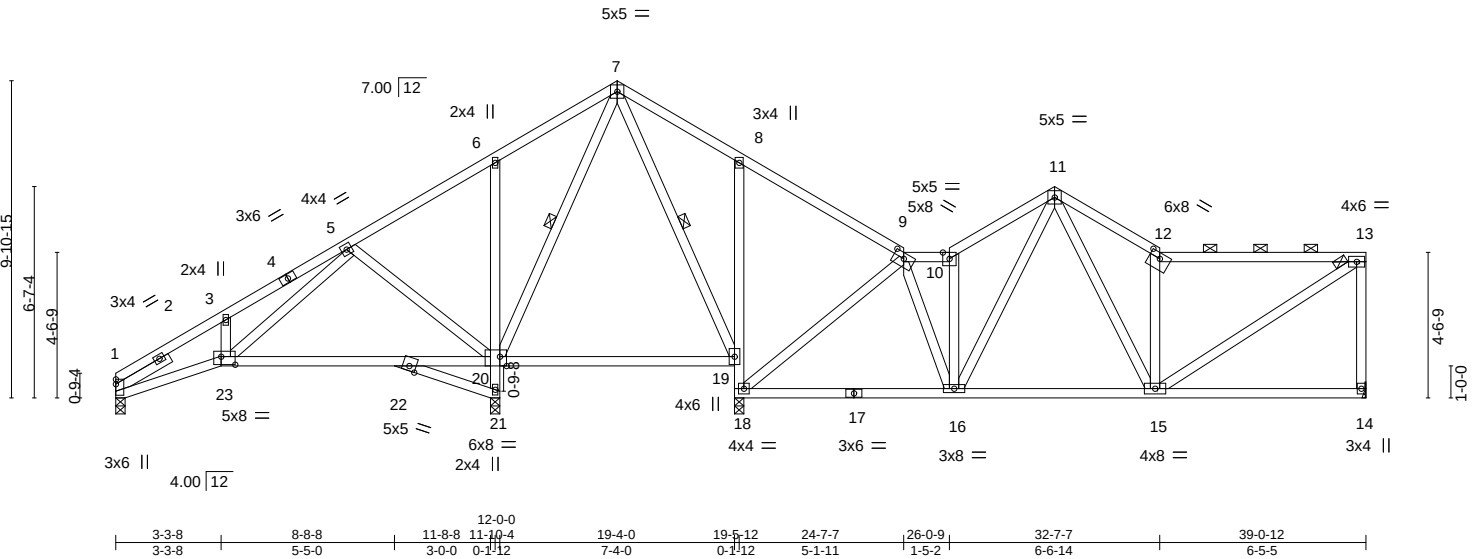
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:09 2021 Page 1

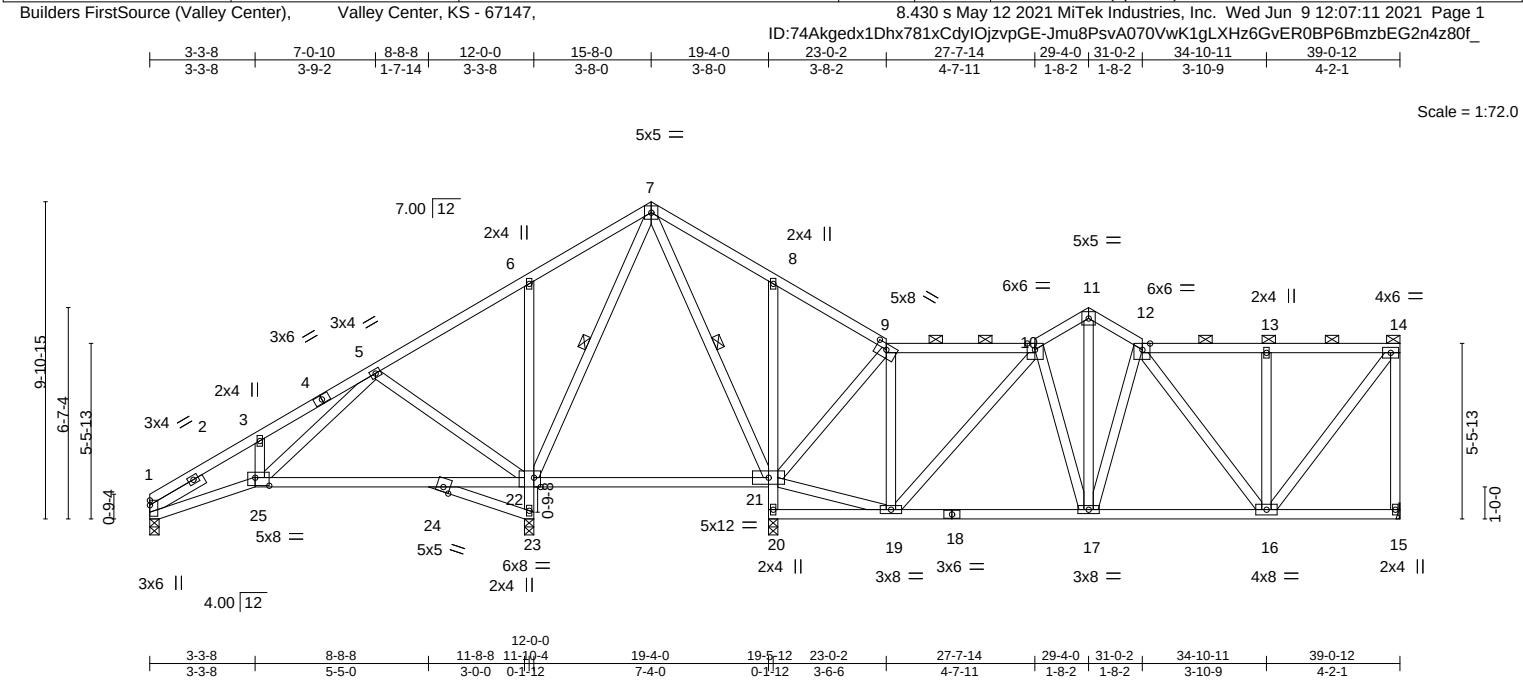
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Scale = 1:72.0



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO
2827360	B5	Roof Special	1	1	146498012



0-1-12												
Plate Offsets (X,Y)--		[1:Edge,0-0-0], [9:0-4-0,0-2-1], [10:0-2-14,Edge], [12:0-2-14,Edge], [22:0-2-8,Edge], [25:0-5-4,0-3-0]										
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	-0.11	24-25	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.22	24-25	>659	180			
BCLL	0.0	Rep Stress Incr	YES	WB 0.52	Horz(CT)	0.07	23	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 218 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (6-0-0 max.): 9-10, 12-14.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Left 2x4 SPF No.2 -t 2-0-0	WEBS	1 Row at midpt 7-22, 7-21

REACTIONS. All bearings 0-3-8 except (jt=length) 15=Mechanical.
 (lb) - Max Horz 1=315(LC 11)
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 15=161(LC 13), 23=288(LC 12), 20=317(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) except 15=749(LC 26), 1=319(LC 25), 23=1174(LC 19), 20=1387(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-3=-557/105, 3-5=-571/214, 5-6=-163/589, 6-7=-85/551, 7-8=-80/556, 8-9=-126/559, 10-11=-632/161, 11-12=-620/159, 12-13=-470/136, 13-14=-468/135, 14-15=-712/167
 BOT CHORD 1-25=-278/592, 22-23=-1106/315, 6-22=-325/198, 21-22=-337/201, 20-21=-1362/326, 8-21=-296/170, 17-19=-143/530, 16-17=-161/597
 WEBS 7-22=-415/61, 7-21=-413/60, 9-21=-761/174, 9-19=-70/552, 11-17=-137/538, 12-17=-329/122, 10-19=-625/160, 5-22=-484/235, 5-25=-241/703, 13-16=-323/140, 14-16=-156/747

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-10-14, Interior(1) 3-10-14 to 15-8-0, Exterior(2R) 15-8-0 to 19-6-10, Interior(1) 19-6-10 to 29-4-0, Exterior(2E) 29-4-0 to 31-0-2, Interior(1) 31-0-2 to 38-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Bearing at joint(s) 1, 23 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 15=161, 23=288, 20=317.
 - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 10,2021

Job 2827360	Truss C1	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498013
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:74Akgedx1Dhx781xCdyIOjzvpGE-F80vqXwRYIGD9dB3TyJRBh_e8pyAaDpG2YI9rzz80ey

0-10-8	10-4-0	20-8-0	21-6-8
0-10-8	10-4-0	10-4-0	0-10-8

Scale = 1:36.5

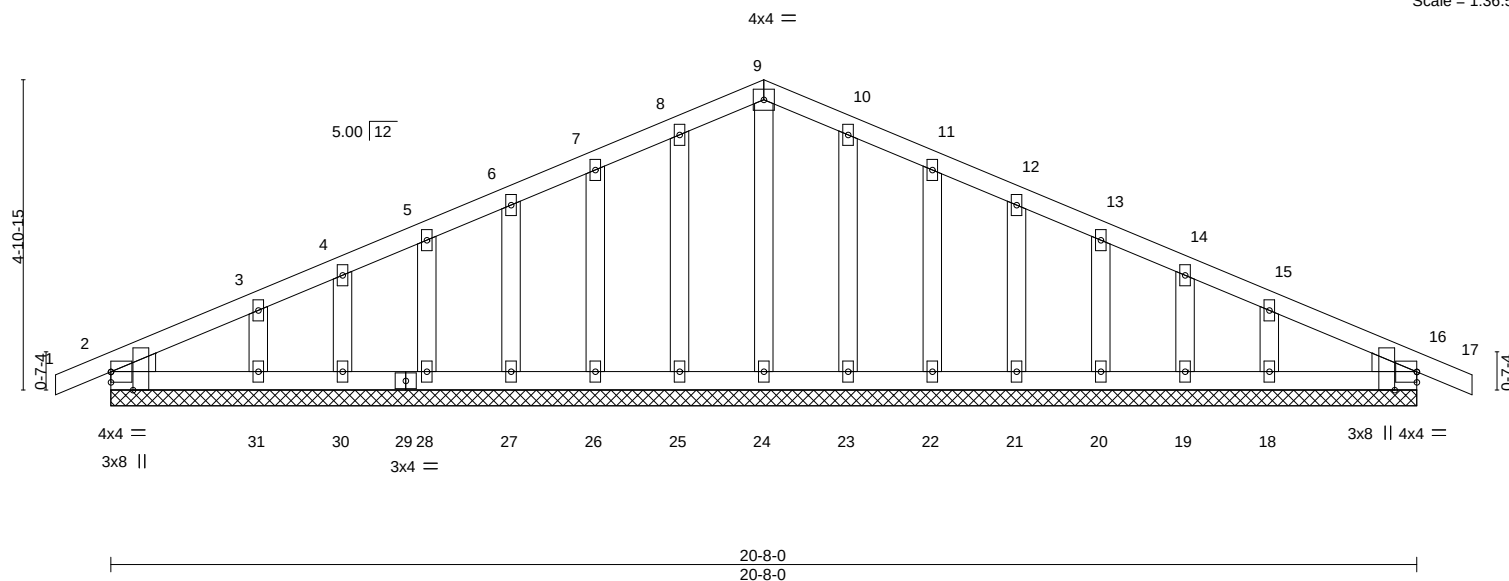


Plate Offsets (X,Y)--		[2:0-3-7,Edge], [16:0-3-7,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05
TCDL 10.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.03
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.00 16 n/r 120
			Vert(CT) 0.00 16 n/r 120
			Horz(CT) 0.00 16 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 91 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 20-8-0.

(lb) - Max Horz 2--82(LC 17)

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

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

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

NOTES-

- 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 2-4-0, Exterior(2N) 2-4-0 to 10-4-0, Corner(3R) 10-4-0 to 13-4-0, Exterior(2N) 13-4-0 to 21-6-8 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
- 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, 25, 26, 27, 28, 30, 31, 23, 16, 22, 21, 20, 19, 18.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10,2021

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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/HAWTHORNE #10/MO	146498014
2827360	C2	Common	4	1		

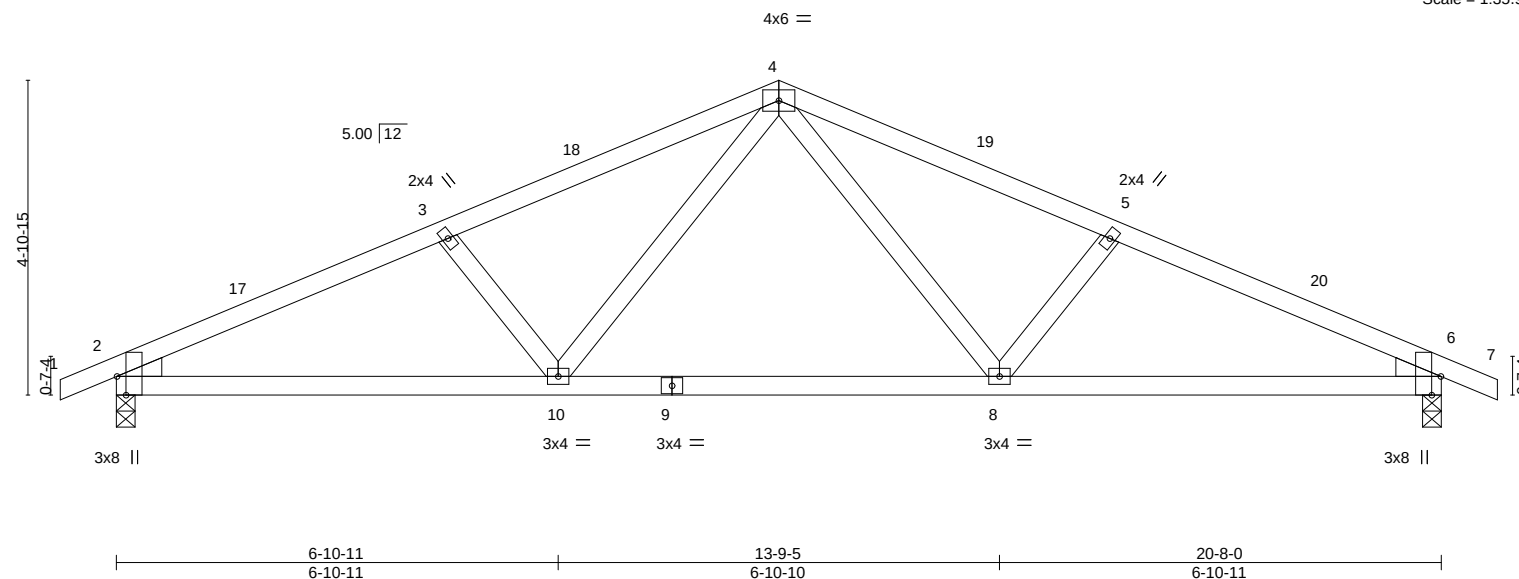
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:74Akgedx1Dhx781xCdyI0jzvpGE-CX8fFDyh3MWxPxLSaNLvH63vWdXU26_ZWsEGvrz80ew

0-10-8	5-2-1	10-4-0	15-5-15	20-8-0	21-6-8
0-10-8	5-2-1	5-1-15	5-1-15	5-2-1	0-10-8

Scale = 1:35.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.31	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.49	Vert(LL) -0.09 8-10 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.12	Vert(CT) -0.19 8-10 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.04 6 n/a n/a		
	Code IRC2018/TPI2014			Weight: 72 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
 Max Horz 2=-82(LC 13)
 Max Uplift 2=-177(LC 12), 6=-177(LC 13)
 Max Grav 2=991(LC 1), 6=991(LC 1)

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

TOP CHORD 2-3=-1688/392, 3-4=-1498/378, 4-5=-1498/378, 5-6=-1688/392
 BOT CHORD 2-10=-288/1497, 8-10=-151/1053, 6-8=-295/1497
 WEBS 4-8=-104/481, 5-8=-325/176, 4-10=-104/481, 3-10=-325/176

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 10-4-0, Exterior(2R) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 21-6-8 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
- 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=177, 6=177.
- This truss 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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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2827360	Truss C3	Truss Type GABLE	Qty 1	Ply 2	SUMMIT/HAWTHORNE #10/MO 146498015
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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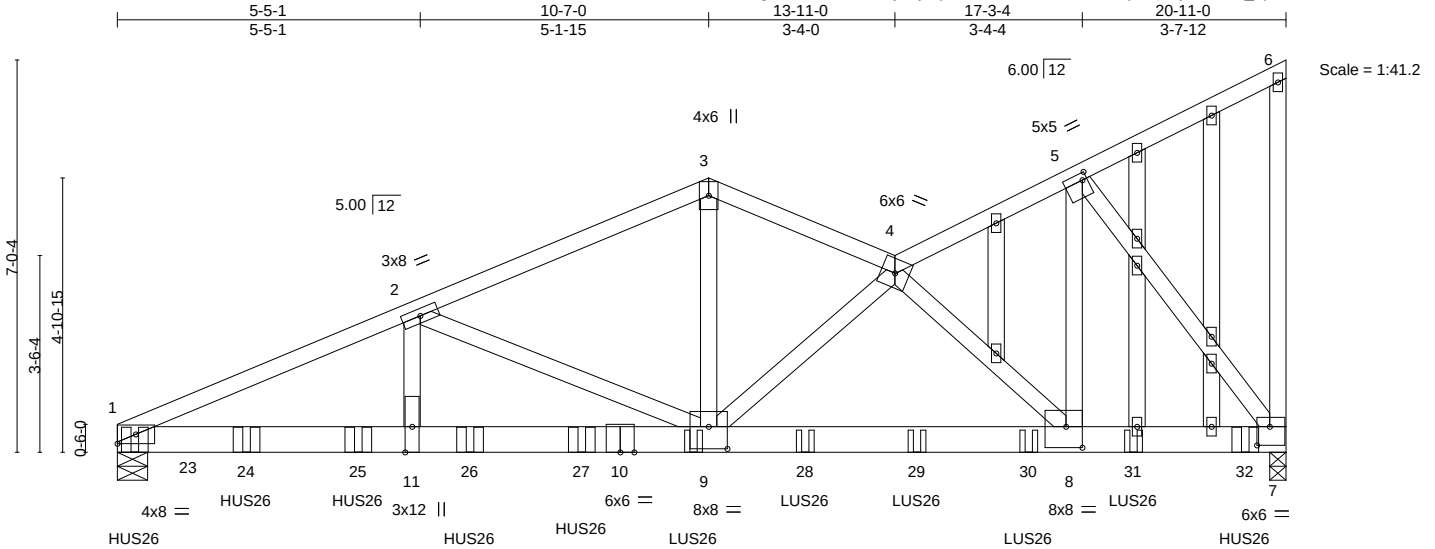


Plate Offsets (X,Y)--		[5:0-1-0,0-1-8], [7:0-2-12,0-4-0], [8:0-3-8,0-4-8], [9:0-4-0,0-4-12]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.69	Vert(LL)	-0.16	8-9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.28	8-9	>875		
BCLL 0.0	Rep Stress Incr	NO	WB 0.77	Horz(CT)	0.06	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 240 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

BRACING-

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

REACTIONS.

(size) 1=0-6-8, 7=0-3-8
Max Horz 1=278(LC 7)
Max Uplift 1=-1039(LC 8), 7=-1215(LC 8)
Max Grav 1=5520(LC 1), 7=5214(LC 1)

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

TOP CHORD 1-2=-9773/1900, 2-3=-6643/1385, 3-4=-6592/1391, 4-5=-3810/824
BOT CHORD 1-11=-1829/8981, 9-11=-1829/8981, 8-9=-1487/6978, 7-8=-711/3391
WEBS 2-9=-3179/618, 3-9=-930/4709, 4-9=-1251/308, 4-8=-5014/1084, 5-8=-1245/5767, 5-7=-5536/1270, 2-11=-291/2120

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-8-0 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
- 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 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=1039, 7=1215.
- This truss 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 11-10-8 oc max. starting at 0-3-12 from the left end to 20-2-4 to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 5-10-8 oc max. starting at 10-3-12 from the left end to 18-2-4 to connect truss(es) to back face of bottom chord.



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Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO
2827360	C3	GABLE	1	2	I46498015
					Job Reference (optional)

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
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ID:74Akgedx1Dhx781xCdyIOjzvpGE-4INA4b?B7b1NtYfDpDQrRyEVZEsf_lq8RUCT2cz80es

- NOTES-**
- 13) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 14-3-12 from the left end to 16-3-12 to connect truss(es) to back face of bottom chord.
- 14) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-70, 3-4=-70, 4-6=-70, 7-20=-20

Concentrated Loads (lb)

Vert: 9=-700(B) 23=-873(B) 24=-866(B) 25=-866(B) 26=-866(B) 27=-866(B) 28=-697(B) 29=-764(B) 30=-777(B) 31=-729(B) 32=-859(B)

Job 2827360	Truss CJ1	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO Job Reference (optional)	I46498016
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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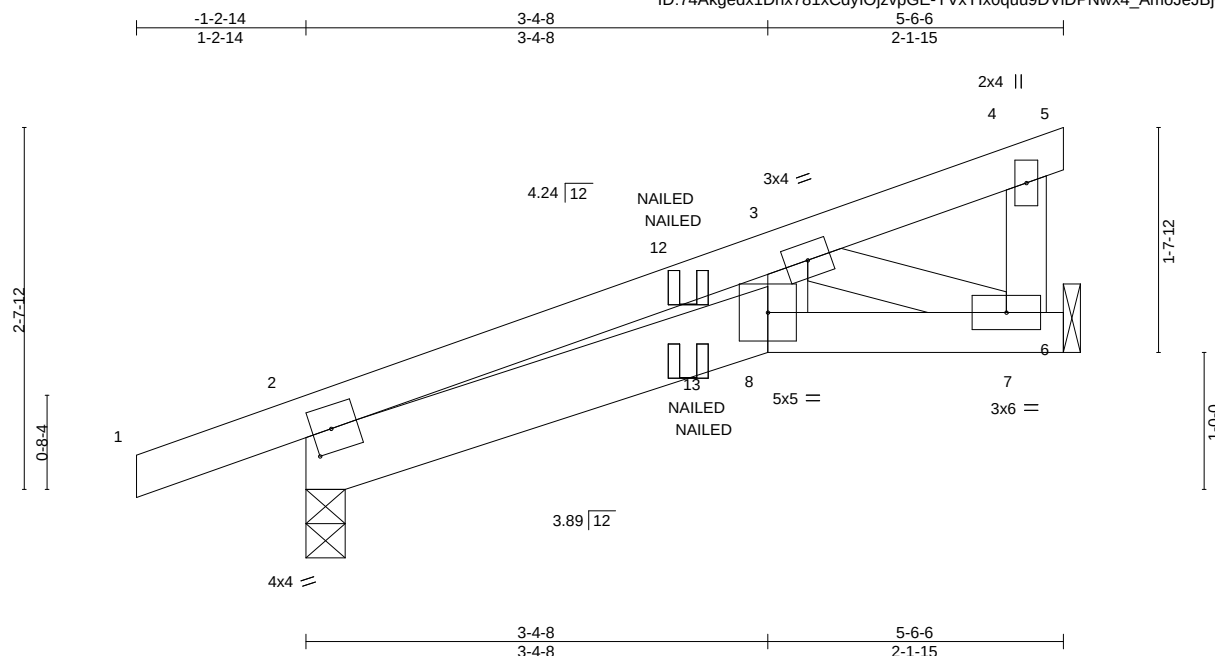


Plate Offsets (X,Y)--		[2:0-1-11,0-2-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.01	8	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.01	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 21 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-7, 7=Mechanical
Max Horz 2=85(LC 5)
Max Uplift 2=-105(LC 4), 7=-75(LC 8)
Max Grav 2=332(LC 1), 7=236(LC 1)

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

TOP CHORD 2-3=-517/146
BOT CHORD 2-8=-166/464, 7-8=-148/408
WEBS 3-7=-434/170

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=6) 2=105.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



June 10, 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

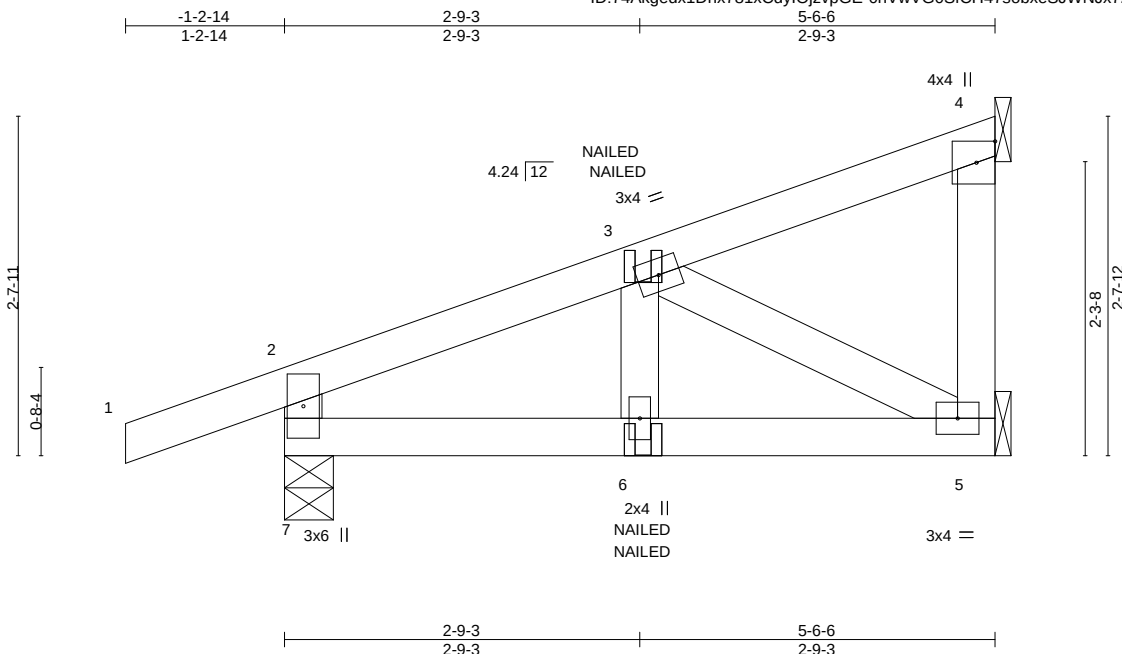
Job 2827360	Truss CJ2	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498017
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:21 2021 Page 1

ID:74Akgedx1Dhx781xCdyI0jzvpGE-0hVwVG0StCH47sobxeSJWNJx72c7Sr0Ruoha7Vz80eq



Scale = 1:17.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	-0.05	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.09	6	>697	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.02	Horz(CT)	-0.08	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 21 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=0-4-9, 4=Mechanical, 5=Mechanical
Max Horz 7=95(LC 4)
Max Uplift 7=-99(LC 4), 4=-33(LC 8), 5=-36(LC 8)
Max Grav 7=344(LC 1), 4=137(LC 1), 5=88(LC 3)

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

TOP CHORD 2-7=-259/115

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) 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: 1-2=-70, 2-4=-70, 5-7=-20
- Concentrated Loads (lb)
Vert: 6=2(F=1, B=1)



June 10, 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/HAWTHORNE #10/MO
2827360	D1	GABLE	1	1	146498018

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:23 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-z4dgwy2iBpXoMay_23UnboOLYrMawKSkM6AhBNz80eo

-0-10-8 10-0-0 20-0-0 20-10-8
0-10-8 10-0-0 10-0-0 0-10-8

4x4 =

Scale = 1:44.5

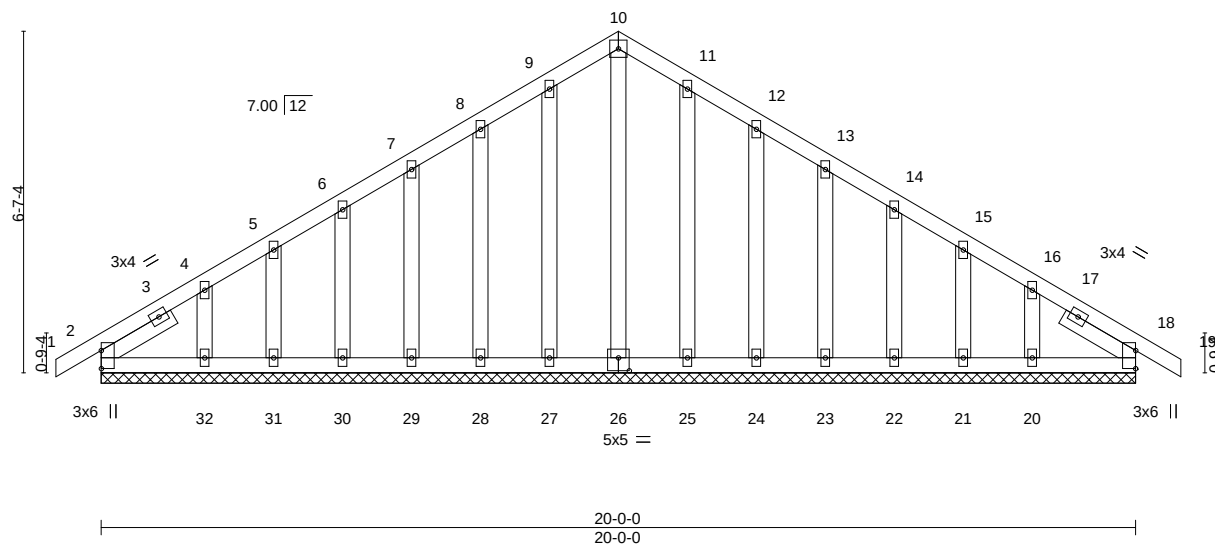


Plate Offsets (X,Y)--										[2:Edge,0-0-0], [18:Edge,0-0-0], [26:0-2-8,0-3-0]											
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP			
TCLL	25.0	Plate Grip DOL		1.15		TC 0.05		Vert(LL)		-0.00		18		n/r		120		MT20		197/144	
TCDL	10.0	Lumber DOL		1.15		BC 0.03		Vert(CT)		-0.00		18		n/r		120					
BCLL	0.0	Rep Stress Incr		YES		WB 0.09		Horz(CT)		0.00		18		n/a		n/a					
BCDL	10.0	Code IRC2018/TPI2014				Matrix-S												Weight: 108 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 -t 1-7-7, Right 2x4 SPF No.2 -t 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=-166(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 25, 18, 24, 23, 22, 21, 20 except 32=-102(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 2, 26, 27, 28, 29, 30, 31, 32, 25, 18, 24, 23, 22, 21, 20

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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, 31, 25, 18, 24, 23, 22, 21, 20 except (jt=lb) 32=102.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10, 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/HAWTHORNE #10/MO
2827360	D2	Common	5	1	146498019

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:24 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-RGB38I3Ky7ff_KXAcM0080xSxFYkf8qtamvEjz80en

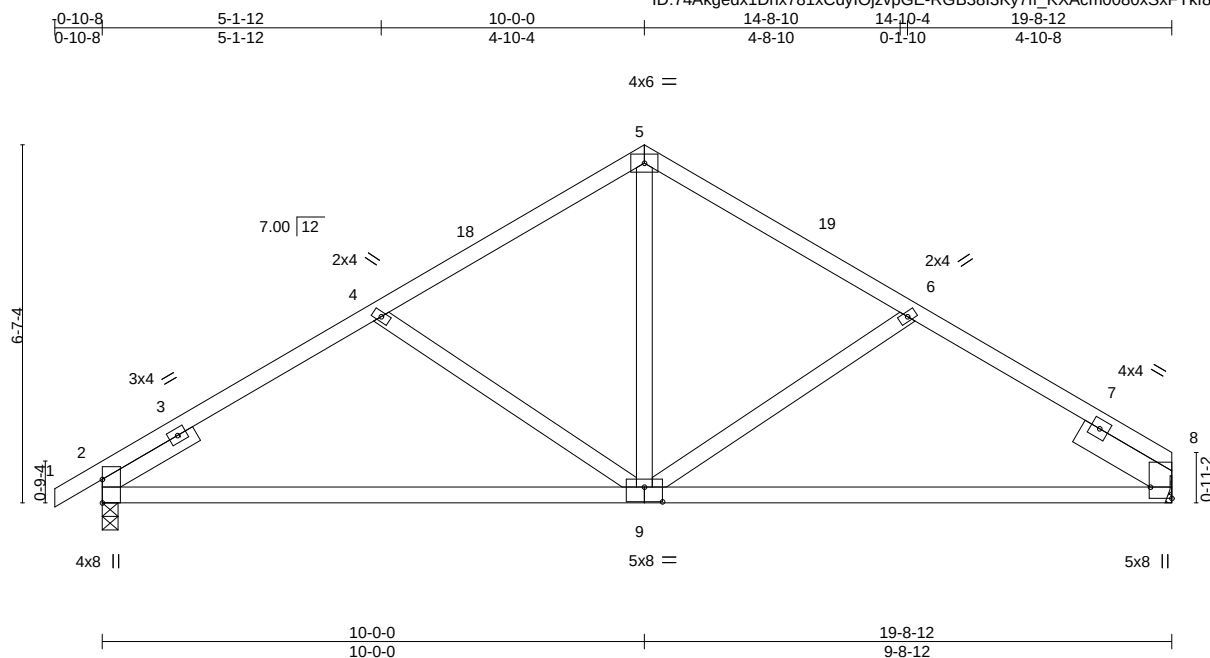


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [8:Edge,0-4-12], [9:0-4-0,0-3-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.14 9-16 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.28 9-16 >842 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.04 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 76 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 -t 2-0-0, Right 2x6 SPF No.2 -t 2-0-0

BRACING-

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

REACTIONS.

(size) 8=Mechanical, 2=0-3-8
 Max Horz 2=161(LC 9)
 Max Uplift 8=-139(LC 13), 2=-162(LC 12)
 Max Grav 8=886(LC 1), 2=950(LC 1)

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

TOP CHORD 2-4=-1084/223, 4-5=-937/197, 5-6=-934/197, 6-8=-1163/219
 BOT CHORD 2-9=-222/984, 8-9=-124/947
 WEBS 4-9=-333/202, 5-9=-63/514, 6-9=-295/192

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 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 19-8-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=139, 2=162.
- 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.



June 10,2021

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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

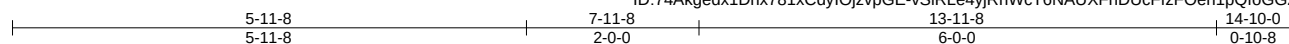
Job 2827360	Truss E1	Truss Type Hip	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498020
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:25 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-vSIRLe4yRnWcT6NAUXFhDUcFzFOen1pQfoGGz80em



Scale = 1:26.7

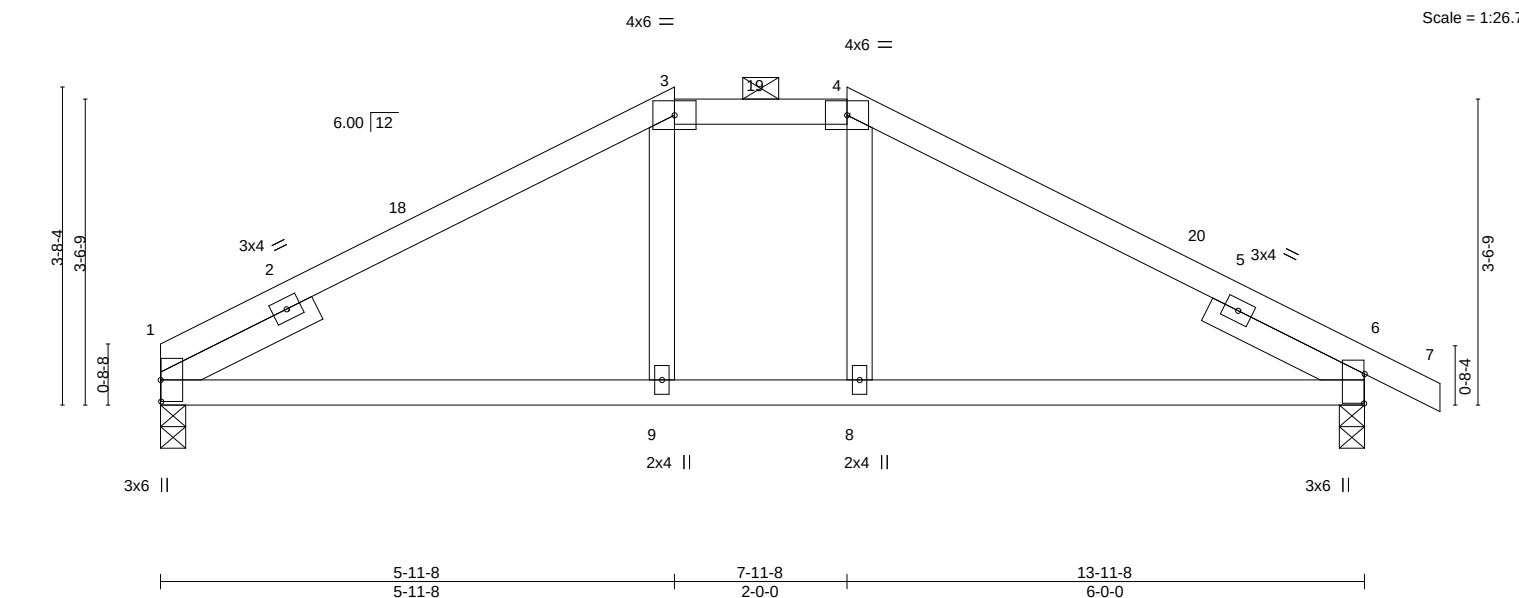


Plate Offsets (X,Y)-- [1:0-3-0,0-0-1], [6:0-4-1,0-0-1]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.08 8-16 >999 240
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.11 8-16 >999 180
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.02 1 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS		
				PLATES	GRIP
				MT20	197/144
				Weight: 46 lb	FT = 20%

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

REACTIONS. (size) 1=0-3-8, 6=0-3-8
Max Horz 1=-67(LC 13)
Max Uplift 1=-105(LC 12), 6=-126(LC 13)
Max Grav 1=626(LC 1), 6=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-782/271, 3-4=-687/281, 4-6=-810/262
BOT CHORD 1-9=-131/691, 8-9=-131/687, 6-8=-129/691

- 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 5-11-8, Exterior(2E) 5-11-8 to 7-11-8, Exterior(2R) 7-11-8 to 12-2-7, Interior(1) 12-2-7 to 14-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) 1=105, 6=126.
 - This truss 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.



June 10, 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 2827360	Truss E2	Truss Type Hip Girder	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498021
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:26 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-NflpY_4aUkvNDdhZjB2UDR0mR3Fp74vA24Oloiz80el

Job Reference (optional)

3-11-8 3-11-8	6-11-8 3-0-0	9-11-8 3-0-0	13-11-8 4-0-0	14-10-0 0-10-8
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Scale = 1:24.6

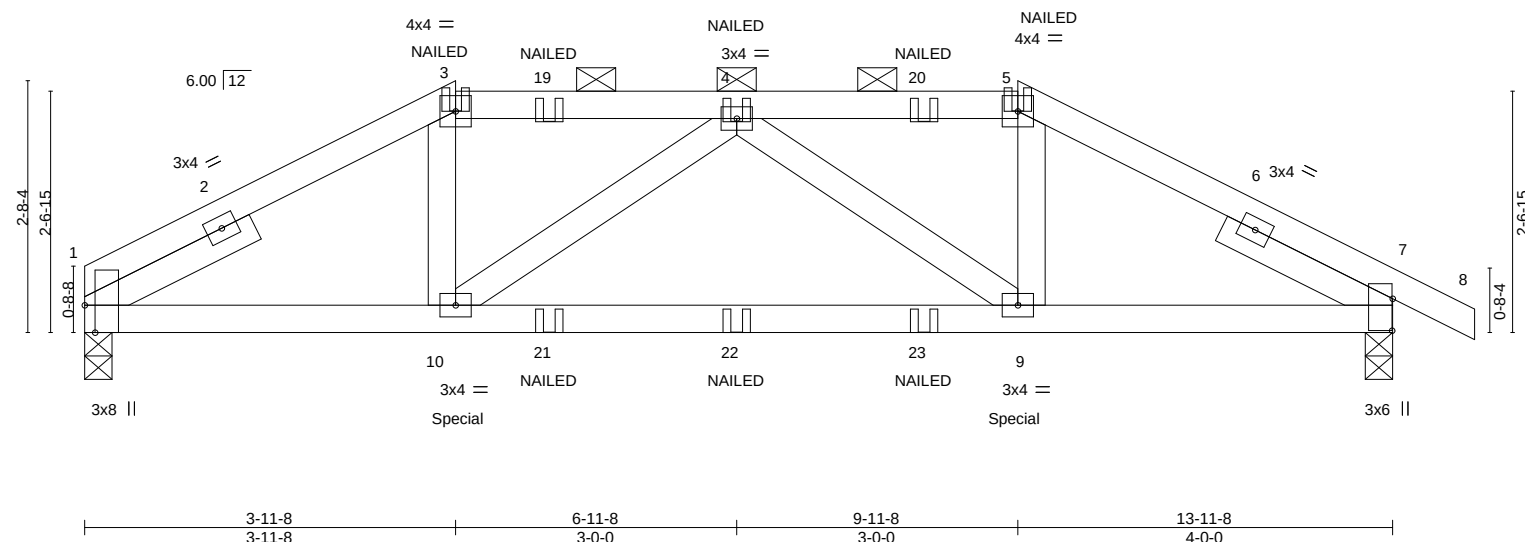


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-4-1,0-0-1]							
LOADING (psf)	SPACING	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.07 9-10	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.17 9-10	>999	180
BCLL 0.0	Rep Stress Incr	NO	WB 0.11	Horz(CT)	0.03 7	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 52 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 -t 2-0-0, Right 2x4 SPF No.2 -t 2-0-0

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 7=0-3-8
Max Horz 1=-49(LC 9)
Max Uplift 1=-248(LC 8), 7=-268(LC 9)
Max Grav 1=861(LC 1), 7=925(LC 1)

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

TOP CHORD 1-3=-1373/409, 3-4=-1164/385, 4-5=-1166/386, 5-7=-1376/410
BOT CHORD 1-10=-334/1187, 9-10=-425/1423, 7-9=-296/1189
WEBS 3-10=-64/410, 4-10=-375/177, 4-9=-370/175, 5-9=-63/409

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) 1=248, 7=268.
- This truss 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) 81 lb down and 60 lb up at 3-11-8, and 81 lb down and 60 lb up at 9-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 5-8=-70, 11-15=-20
Concentrated Loads (lb)
Vert: 3=-46(B) 5=-46(B) 10=-81(B) 4=-46(B) 9=-81(B) 19=-46(B) 20=-46(B) 21=-25(B) 22=-25(B) 23=-25(B)



June 10, 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/HAWTHORNE #10/MO
2827360	G1	GABLE	1	1	146498022

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:27 2021 Page 1

ID:74Akgedx1Dhx781xCdyI0jzvpGE-rrsBmK5DF21ErnGIHuZjmeZ1cSkUsYKKGk8vK9z80ek

6-0-0 12-0-0 12-10-8
6-0-0 6-0-0 0-10-8

Scale = 1:27.9

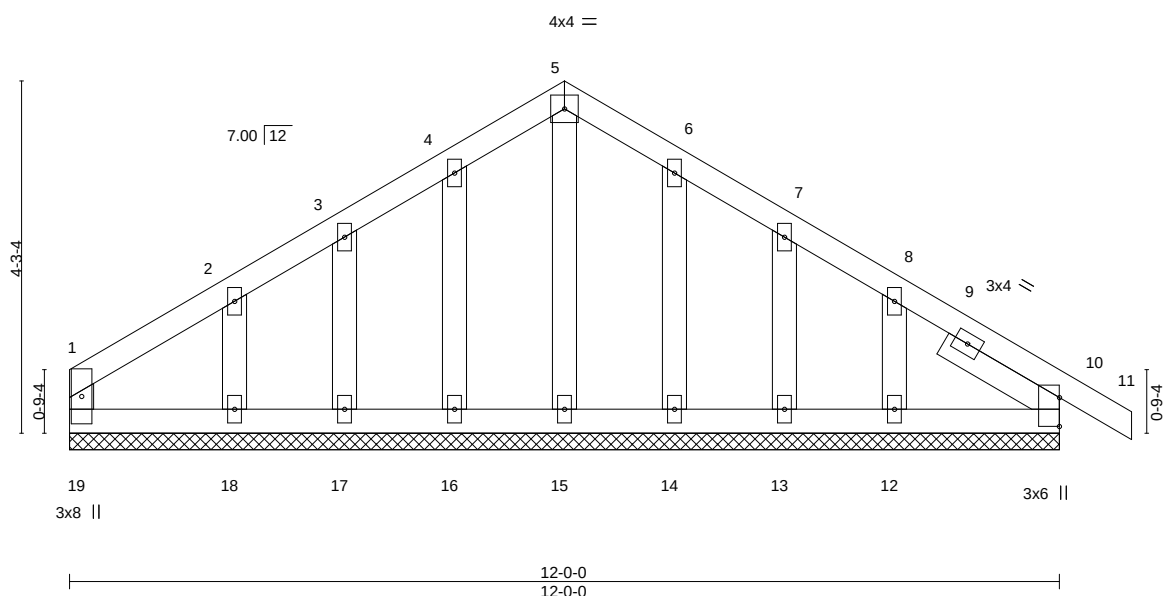


Plate Offsets (X,Y)-- [10:Edge,0-0-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	10	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	10	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 52 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 - t 1-7-7

BRACING-

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

REACTIONS.

All bearings 12-0-0.
(lb) - Max Horz 19=-112(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 19, 10, 16, 17, 18, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 19, 10, 15, 16, 17, 18, 14, 13, 12

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) 0-1-12 to 3-4-0, Exterior(2N) 3-4-0 to 6-0-0, Corner(3R) 6-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 19, 10, 16, 17, 18, 14, 13, 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10,2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

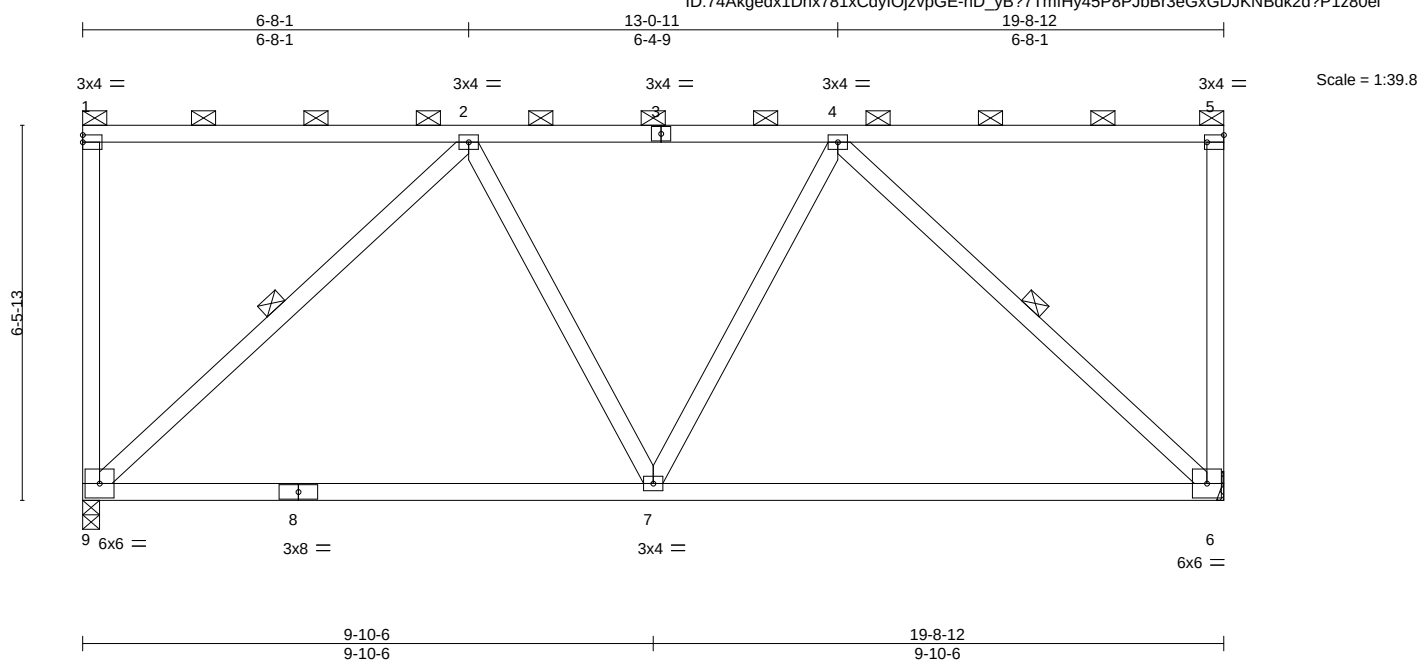


Plate Offsets (X,Y)-- [5:Edge,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.18	7-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.36	7-9	>649	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 94 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 2-9, 4-6

REACTIONS.

(size) 9=0-3-8, 6=Mechanical
Max Horz 9=-237(LC 8)
Max Uplift 9=-236(LC 8), 6=-236(LC 9)
Max Grav 9=875(LC 1), 6=875(LC 1)

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

TOP CHORD 2-4=-702/389
BOT CHORD 7-9=-563/647, 6-7=-515/647
WEBS 2-9=-849/611, 4-6=-849/611

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=236, 6=236.
- 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.



June 10, 2021



WARNING – Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) BEFORE USE.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO	I46498024
2827360	G3	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

- NOTES-**
- 14) Use Simpson Strong-Tie HGUS28 (36-10d Girder, 6-10d Truss) or equivalent at 10-0-12 from the left end to connect truss(es) to back face of bottom chord.
- 15) 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

Concentrated Loads (lb)

Vert: 7=-1733(B) 6=-1499(B) 11=-1138(B) 12=-1499(B) 13=-1499(B)



Job 2827360	Truss G5	Truss Type Common	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498025
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:31 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-kc6ich8jIHxgKOZWWkegwUkb74?roLmvBL66Twz80eg

6-11-8 13-11-8 14-10-0
6-11-8 7-0-0 0-10-8

4x8 =

Scale = 1:28.8

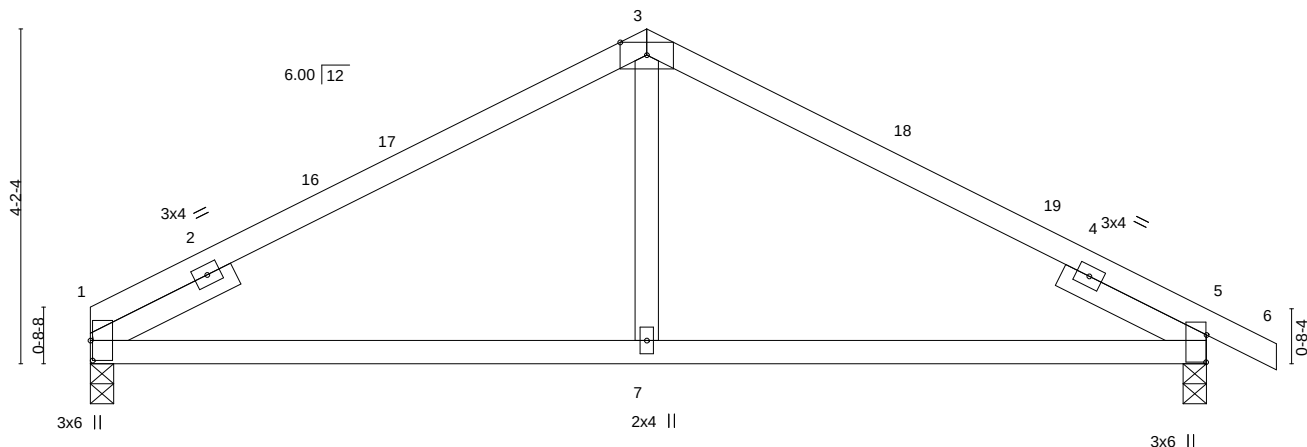


Plate Offsets (X,Y)--	[1:0-3-0,0-0-5], [5:0-4-1,0-0-1]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.07	7-14	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.12	7-14	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.03	1	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 44 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 5=0-3-8
Max Horz 1=-77(LC 13)
Max Uplift 1=-102(LC 12), 5=-123(LC 13)
Max Grav 1=626(LC 1), 5=691(LC 1)

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

TOP CHORD 1-3=-748/294, 3-5=-777/290
BOT CHORD 1-7=-130/650, 5-7=-130/650
WEBS 3-7=0/294

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 6-11-8, Exterior(2R) 6-11-8 to 9-11-8, Interior(1) 9-11-8 to 14-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 1=102, 5=123.
- 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.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2827360	Truss J1	Truss Type Jack-Open	Qty 5	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498026
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Builders FirstSource (Valley Center),

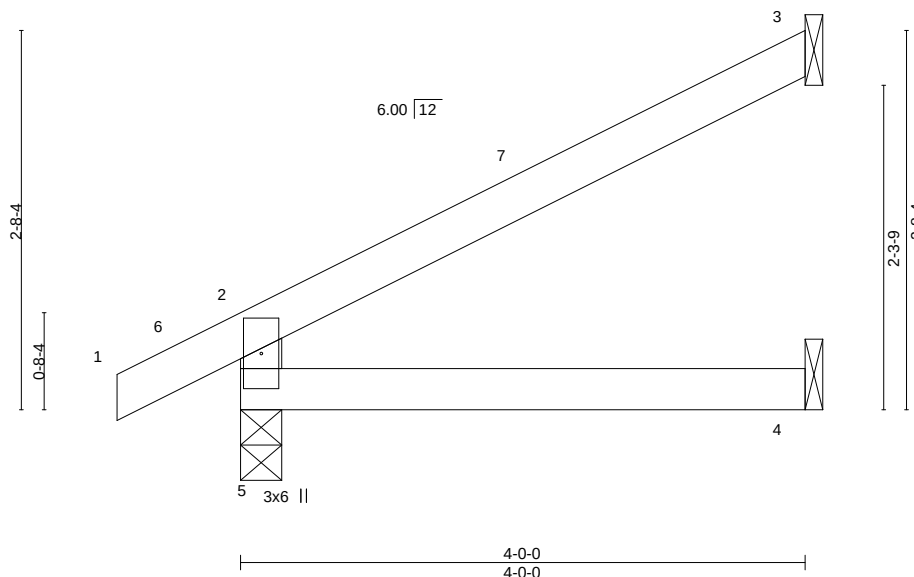
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:32 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-Cog4p19L3agXxY8j4S9vTiGquTPjXp23Q?rf0Mz80ef



Scale = 1:16.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=89(LC 12)
Max Uplift 5=-36(LC 12), 3=-67(LC 12)
Max Grav 5=252(LC 1), 3=116(LC 1), 4=71(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-4 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 connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2827360	Truss J4	Truss Type Jack-Open	Qty 4	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498028
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Builders FirstSource (Valley Center),

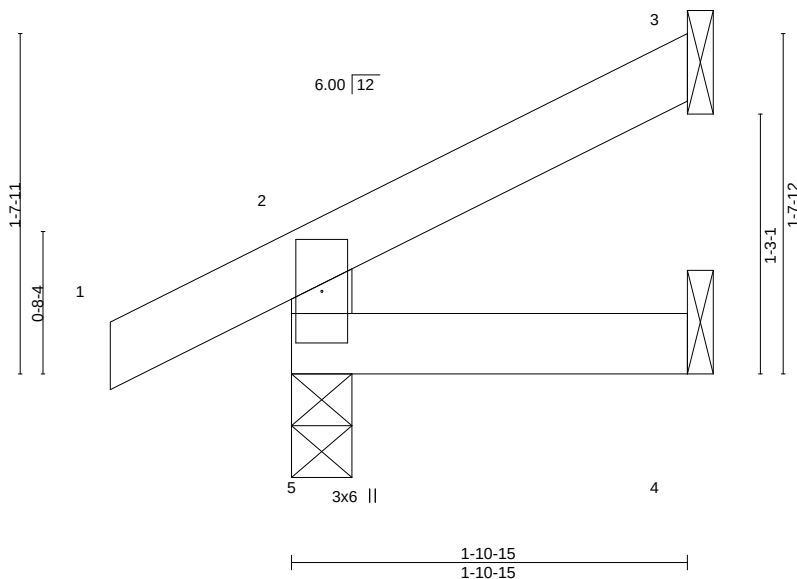
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:33 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-g?DS0NA_quoNZijve9g8?vp1ktnqGGHCffbDYoz80ee

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

Scale = 1:11.1



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)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=47(LC 12)
Max Uplift 5=29(LC 12), 3=31(LC 12)
Max Grav 5=171(LC 1), 3=44(LC 1), 4=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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 2827360	Truss J5	Truss Type Jack-Open	Qty 2	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498029
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Builders FirstSource (Valley Center),

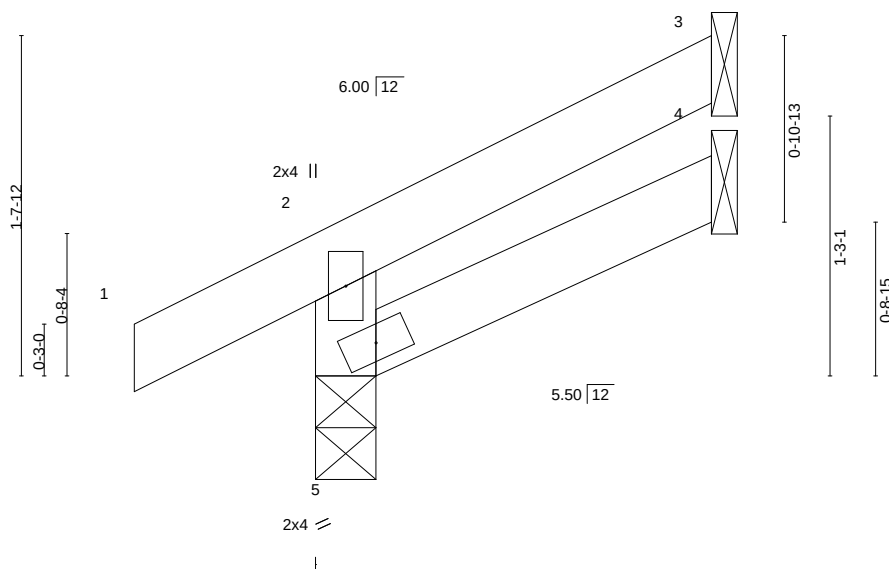
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:34 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-8BnrEjAcBcWcEBSi5BtBNY7LCTH7??jXMtJKm4Fz80ed

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

Scale = 1:11.1



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)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=47(LC 12)
Max Uplift 3=32(LC 12), 5=27(LC 12)
Max Grav 3=44(LC 1), 4=31(LC 3), 5=171(LC 1)

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

NOTES-

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



June 10, 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

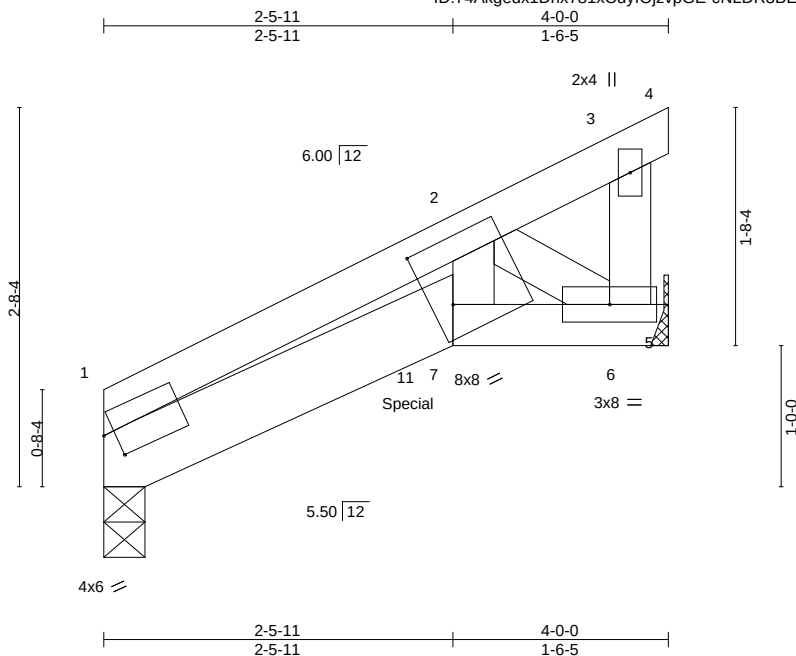
Job 2827360	Truss J7	Truss Type Jack-Closed Girder	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498030
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:35 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-cNLDR3BEMV25o0tllaic5KuLPhKok5MV6z4Kchz80ec



Scale = 1:16.3

Plate Offsets (X,Y)-- [1:0-0-15,0-2-3], [7:0-1-12,0-5-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.02 7 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.03 7 >999 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.02 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP				Weight: 15 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-7: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 6=Mechanical
Max Horz 1=70(LC 5)
Max Uplift 1=-113(LC 8), 6=-179(LC 8)
Max Grav 1=676(LC 1), 6=808(LC 1)

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

TOP CHORD 1-2=-1595/309
BOT CHORD 1-7=-374/1779, 6-7=-238/1067
WEBS 2-7=-267/1416, 2-6=-1255/294

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=113, 6=179.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1138 lb down and 223 lb up at 2-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-20, 7-8=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 11=-1138(F)



June 10,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2827360	Truss L1	Truss Type Lay-In Gable	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498031
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:36 2021 Page 1
ID:74Akgedx1Dhx781xCdyI0jzvpGE-4avbfPCs7pAyQASUJHDrdYRYI5oGTdOfLdpt97z80eb

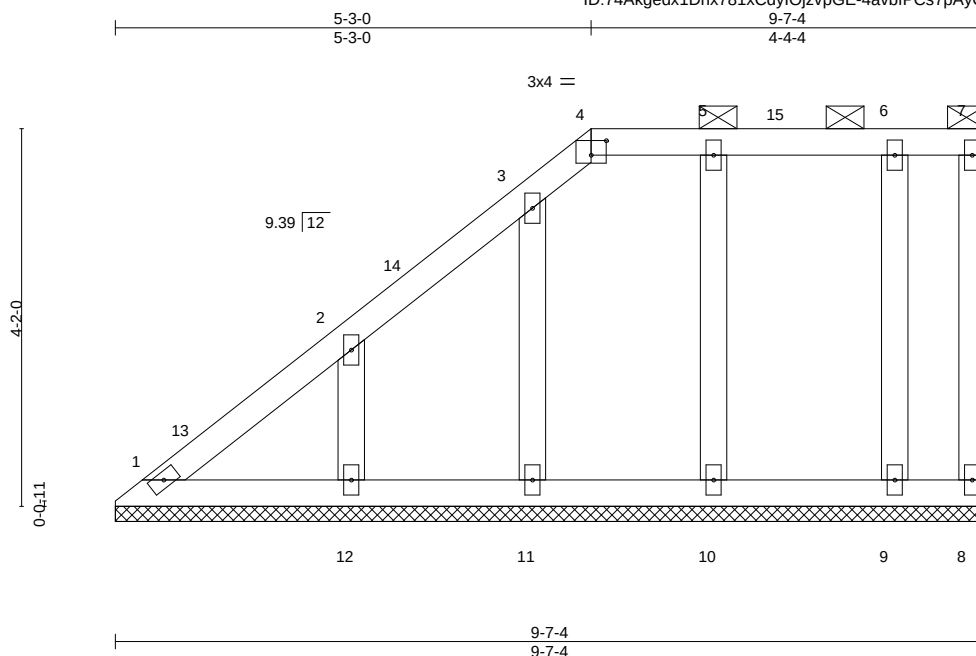


Plate Offsets (X,Y)--	[4:0-2-0,0-1-15]			
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES
TCLL 25.0	2-0-0	TC 0.08	in (loc) l/defl L/d	MT20
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) n/a - n/a 999	GRIP 197/144
BCLL 0.0	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999	
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 8 n/a n/a	
	Code IRC2018/TPI2014			Weight: 41 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 9-7-4.
(lb) - Max Horz 1=154(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 9, 10, 11 except 12=-117(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 9, 10, 11, 12

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-272/166

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) 0-4-3 to 3-4-3, Interior(1) 3-4-3 to 5-3-0, Exterior(2E) 5-3-0 to 9-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 9, 10, 11 except (jt=lb) 12=117.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 10, 2021

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Chesterfield, MO 63017

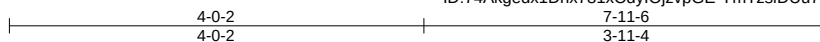
Job 2827360	Truss L2	Truss Type Lay-In Gable	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498032
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:37 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-YmTzslDUu7lp2J1gt?k4Alzj0U8TC4goaHZQhaz80ea



3x4 =

Scale = 1:22.3

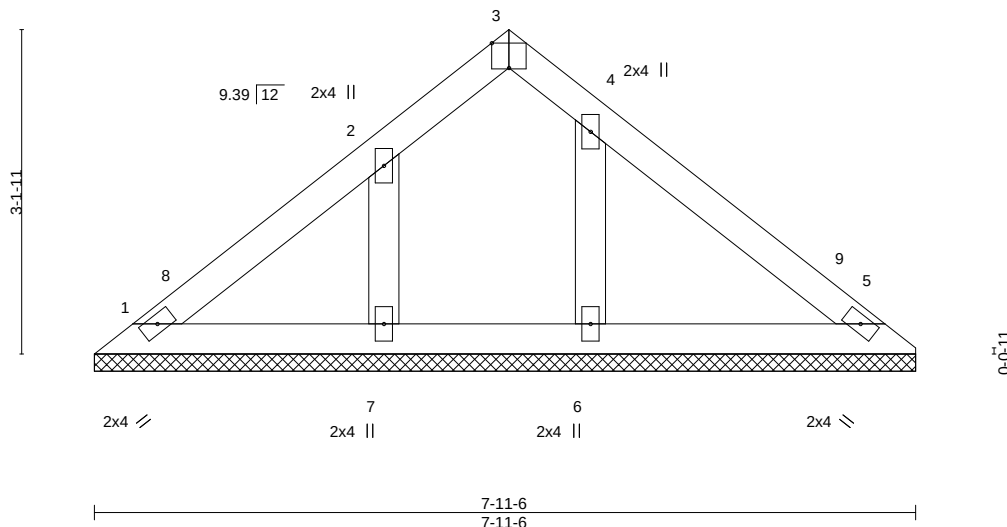


Plate Offsets (X,Y)--	[3:0-2-0,Edge]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999	GRIP
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	5	n/a	n/a	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 24 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 6-0-0 oc bracing.

REACTIONS.

All bearings 7-11-6.

(lb) - Max Horz 1=-73(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) except 6=-127(LC 13), 7=-108(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=276(LC 20)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-1 to 3-5-1, Interior(1) 3-5-1 to 4-0-2, Exterior(2R) 4-0-2 to 7-0-2, Interior(1) 7-0-2 to 7-7-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 127 lb uplift at joint 6 and 108 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10, 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
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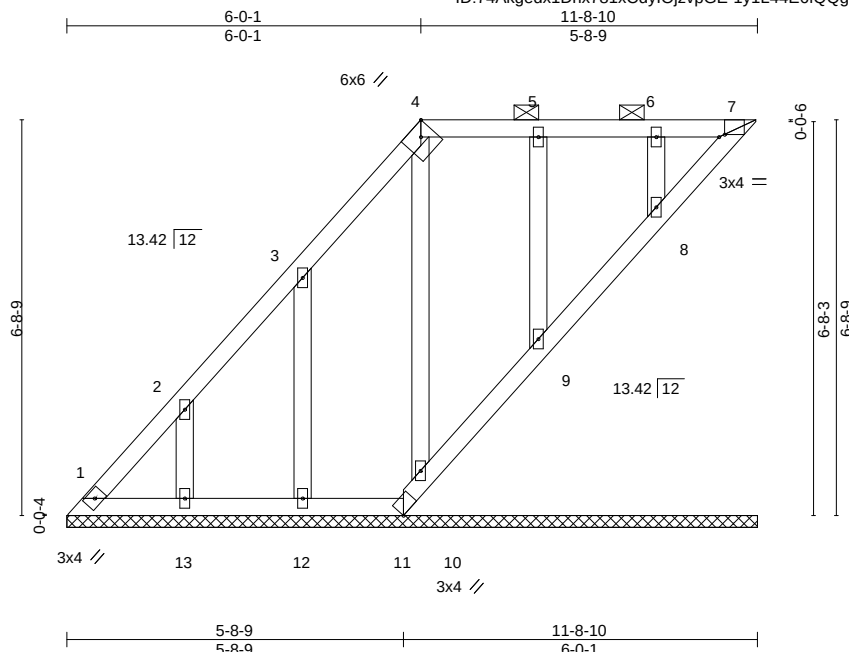
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO
2827360	L3	GABLE	1	1	I46498033
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:38 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-1y1L44E6fQgFTcsQiGJizWuPuU_xWWxoxl_D0z80eZ



Scale = 1:39.1

Plate Offsets (X,Y)--		[4:0-2-10,Edge], [7:0-1-2,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 10.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.07
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) -0.00 7 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 52 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 11-8-10.
(lb) - Max Horz 1=261(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 11, 10, 9, 8 except 13=-144(LC 12), 12=-154(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 11, 13, 12, 10, 9, 8

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-268/226

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 6-0-1, Exterior(2R) 6-0-1 to 9-0-1, Interior(1) 9-0-1 to 11-4-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 11, 10, 9, 8 except (jt=lb) 13=144, 12=154.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 10, 9, 8.
- 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.



June 10,2021

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



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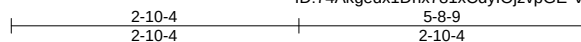
Job 2827360	Truss L4	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498034
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

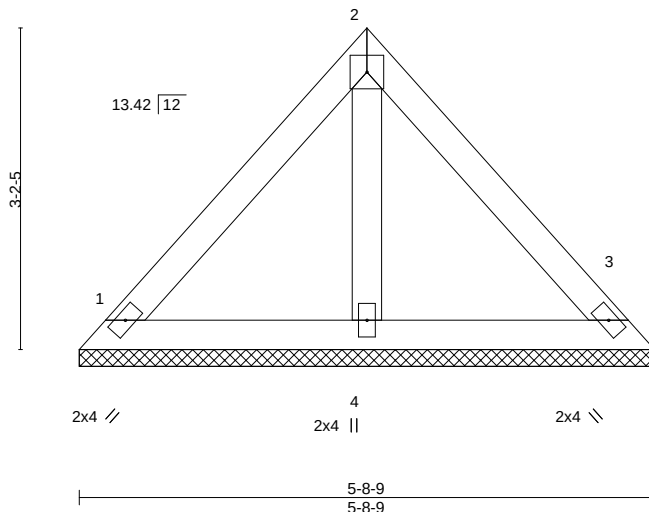
8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:39 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-V9bkHQEkQkYXHdA3_QnYFA33LIqsg_U51b2XISz80eY



4x4 =

Scale = 1:22.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 18 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-8-9, 3=5-8-9, 4=5-8-9
Max Horz 1=-76(LC 8)
Max Uplift 1=-41(LC 13), 3=-35(LC 13)
Max Grav 1=142(LC 1), 3=142(LC 1), 4=171(LC 1)

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

NOTES-

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



June 10, 2021

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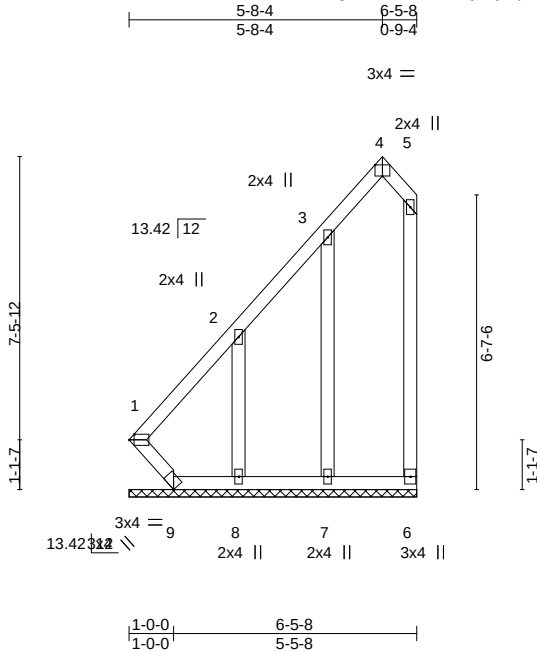
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORNE #10/MO
2827360	L5	GABLE	1	1	146498035
Job Reference (optional)					

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:40 2021 Page 1

ID:74Akgedx1Dhx781xCdy1OjzvpGE-zL96UmFNB2gOvnlFY7InnObBdi8ePPIEGFn5luz80eX



Scale = 1:51.7

Plate Offsets (X,Y)--		[4:Edge,0-3-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28
TCDL 10.0	Lumber DOL	1.15	BC 0.15
BCLL 0.0	Rep Stress Incr	YES	WB 0.17
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL. in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 6 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 37 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-9.

REACTIONS.

All bearings 6-5-8.
(lb) - Max Horz 1=263(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 9, 7 except 8=182(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 9, 7, 8

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

TOP CHORD 1-2=-387/389, 2-3=-246/258
WEBS 3-7=-313/247, 2-8=-286/233

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) 0-2-6 to 3-2-6, Interior(1) 3-2-6 to 5-8-4, Exterior(2E) 5-8-4 to 6-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 6, 9, 7 except (jt=lb) 8=182.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10,2021

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 2827360	Truss V1	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498036
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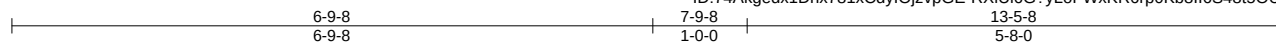
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:41 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-RXiUi6G?yLoFWxKR6p0Kb8II6S48t5OUvXeqLz80eW

Job Reference (optional)



4x8 =

Scale = 1:24.4

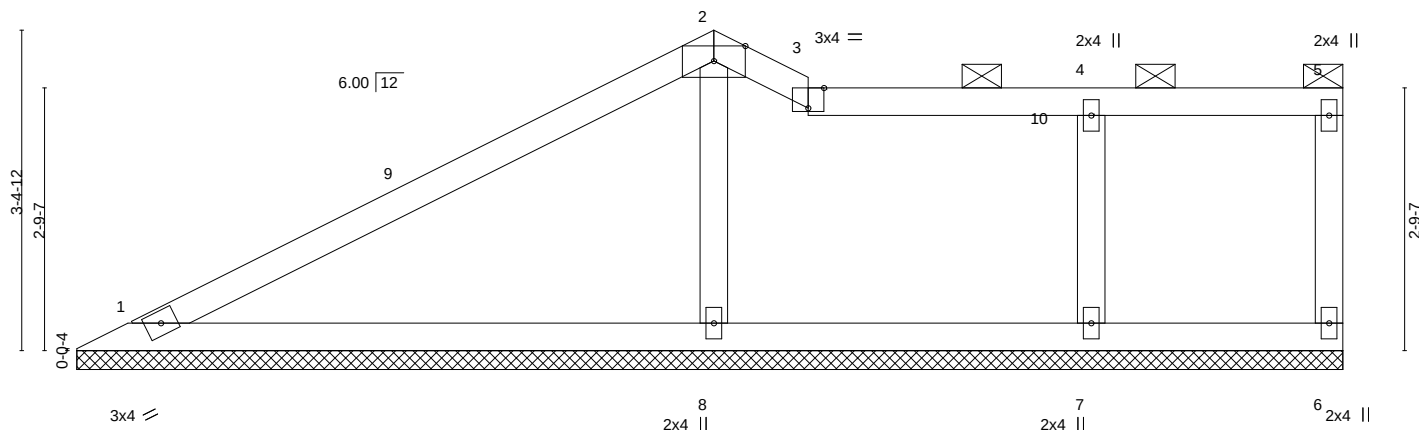


Plate Offsets (X,Y)-- [3:0-2-0,Edge]		13-5-8 13-5-8	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.54	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.26	Vert(LL) n/a - n/a 999
BCLL 0.0	Rep Stress Incr YES	WB 0.08	Vert(CT) n/a - n/a 999
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) -0.00 6 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 39 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 13-5-0.
(lb) - Max Horz 1=110(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 8, 7
Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 8=536(LC 1), 7=325(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-385/270, 4-7=-272/111

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-9-8, Exterior(2E) 6-9-8 to 7-9-8, Interior(1) 7-9-8 to 13-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6, 8, 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 10, 2021

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

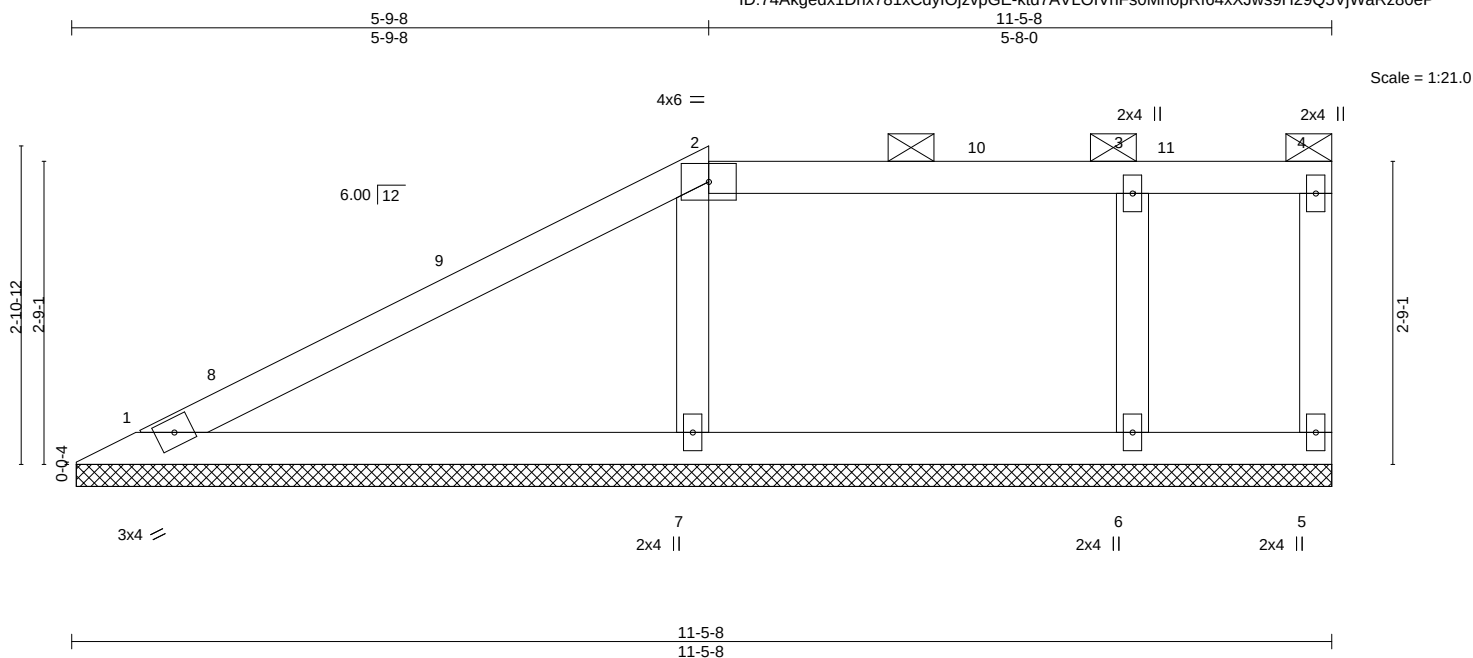
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.37	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 0.05	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S		Weight: 34 lb	FT = 20%

LUMBER-
TOP CHO
BOT CHO
WEBS
OTHERS

REACTION

FORCES.
WEBS

NOTES-

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

BRACING-
TOP CHOR
BOT CHOR

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

REACTIONS. All bearings 11-5-0.
(lb) - Max Horz 1=102(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=468(LC 1), 6=308(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-7=-342/231, 3-6=-254/123

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDDL=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 5-9-8, Exterior(2R) 5-9-8 to 10-0-7, Interior(1) 10-0-7 to 11-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 7, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 10, 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

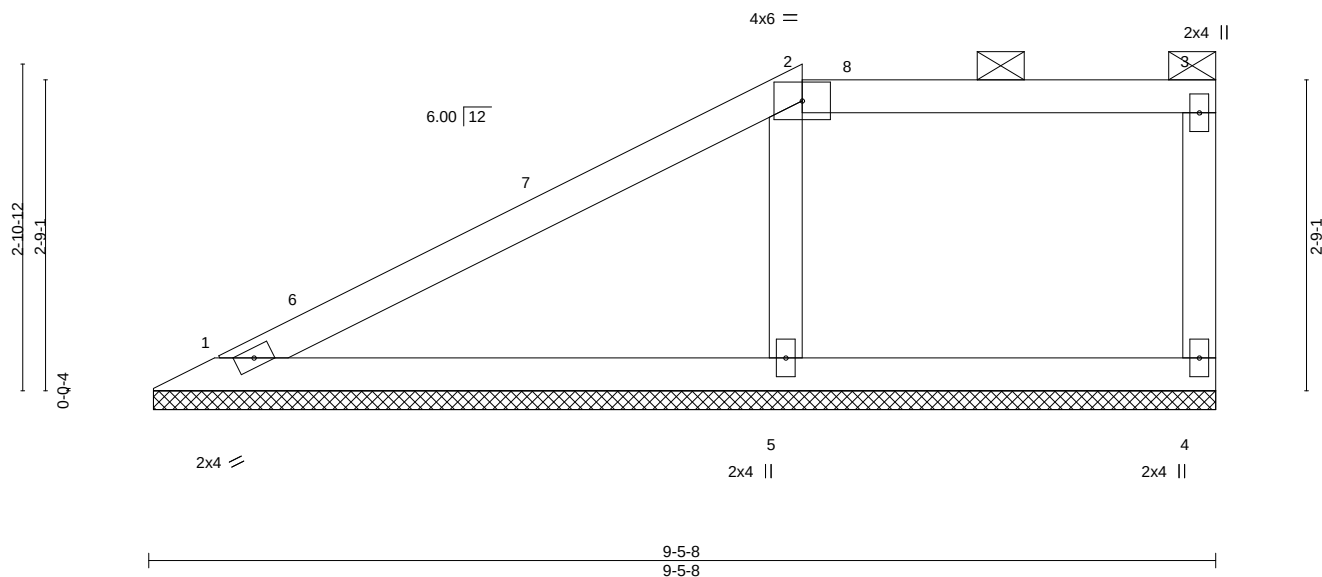
Job 2827360	Truss V3	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498038
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:50 2021 Page 1
ID:74Akgedx1Dhx781xCdyI0jzvpGE-gGlubBNeq6xz5JWA7ET7BV0tkYdlygiZpCceJz80eN

5-9-8 9-5-8
5-9-8 3-8-0

Scale = 1:20.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999	197/144
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-S						
								Weight: 27 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=9-5-0, 4=9-5-0, 5=9-5-0
Max Horz 1=102(LC 9)
Max Uplift 1=-30(LC 12), 4=-42(LC 8), 5=-91(LC 12)
Max Grav 1=195(LC 1), 4=145(LC 26), 5=464(LC 1)

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

WEBS 2-5=-339/274

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-9-8, Exterior(2E) 5-9-8 to 9-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 10, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2827360	Truss V4	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498039
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Builders FirstSource (Valley Center),

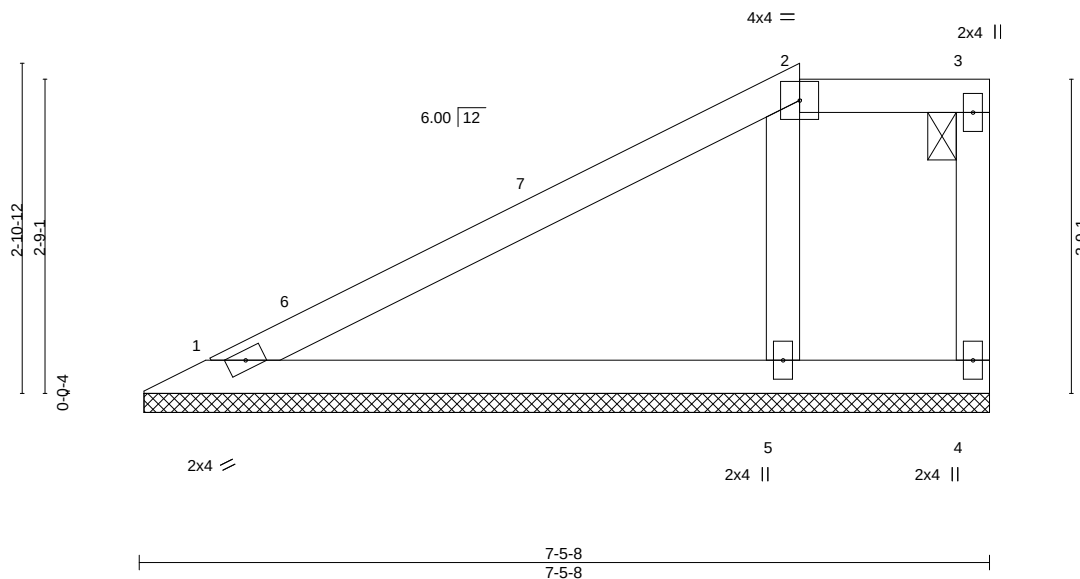
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:50 2021 Page 1

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Scale = 1:20.2



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 0.52	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	4	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, and 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 1=7-5-0, 4=7-5-0, 5=7-5-0
Max Horz 1=102(LC 9)
Max Uplift 1=-42(LC 12), 4=-28(LC 8), 5=-53(LC 12)
Max Grav 1=214(LC 1), 4=40(LC 1), 5=347(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-9-8, Exterior(2E) 5-9-8 to 7-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 10, 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



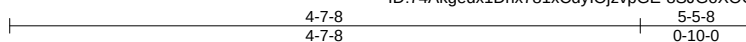
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2827360	Truss V5	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498040
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Builders FirstSource (Valley Center),

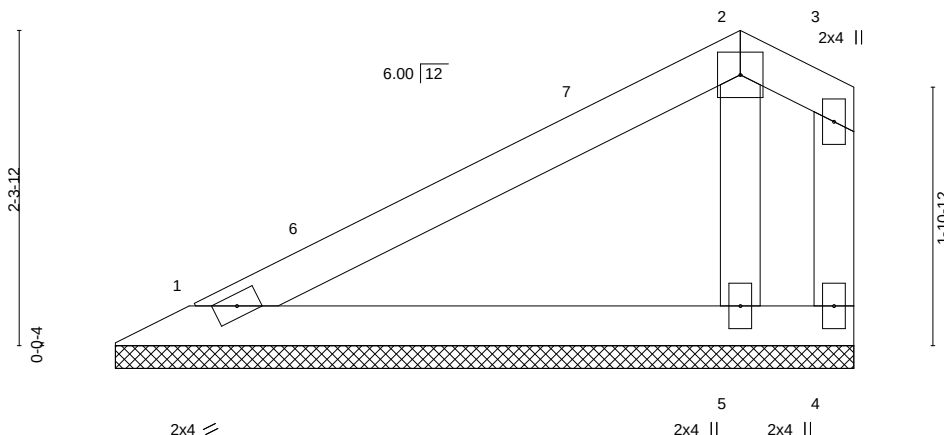
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:51 2021 Page 1
ID:74Akgedx1Dhx781xCdyIOjzvpGE-8SJGoXOGbQ3qjT5Mhx?MkiZ3e8vUPAs0TyABmz80eM



4x4 =

Scale = 1:16.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a				
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							
								Weight: 16 lb		FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-5-0, 4=5-5-0, 5=5-5-0
Max Horz 1=74(LC 9)
Max Uplift 1=-36(LC 12), 4=-79(LC 3), 5=-15(LC 12)
Max Grav 1=171(LC 1), 5=269(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-7-8, Exterior(2E) 4-7-8 to 5-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 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.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

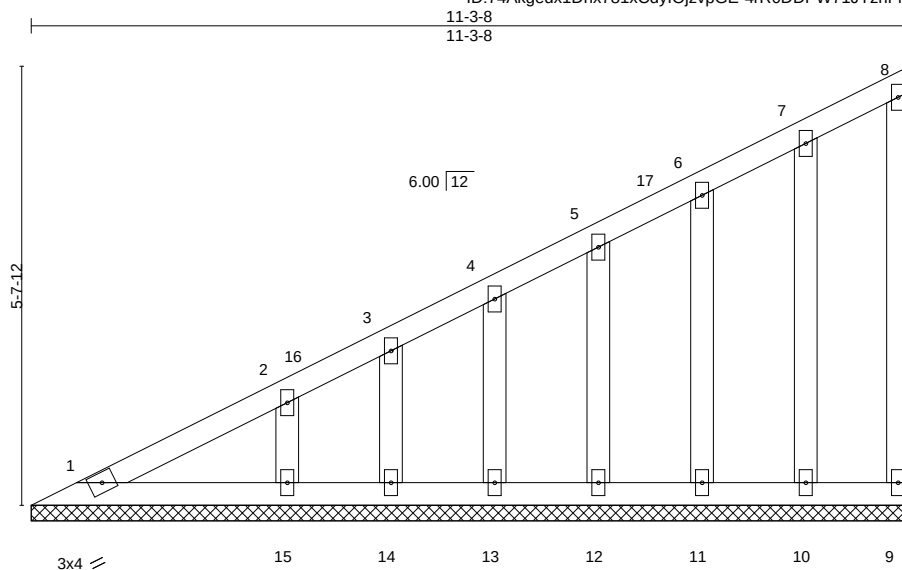
Job 2827360	Truss V7	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO Job Reference (optional)	I46498042
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:53 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-4rR0DDPW71JYznFlpM1qp7eR0xbXyJc9FnRHFez80eK



Scale = 1:29.6

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 0.18	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	9	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 51 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 11-3-8.

(lb) - Max Horz 1=219(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, 15

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

TOP CHORD 1-2=-417/216, 2-3=-325/175, 3-4=-291/170

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) 0-7-7 to 3-7-7, Exterior(2N) 3-7-7 to 11-1-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 10, 11, 12, 13, 14, 15.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10, 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 2827360	Truss V8	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498043
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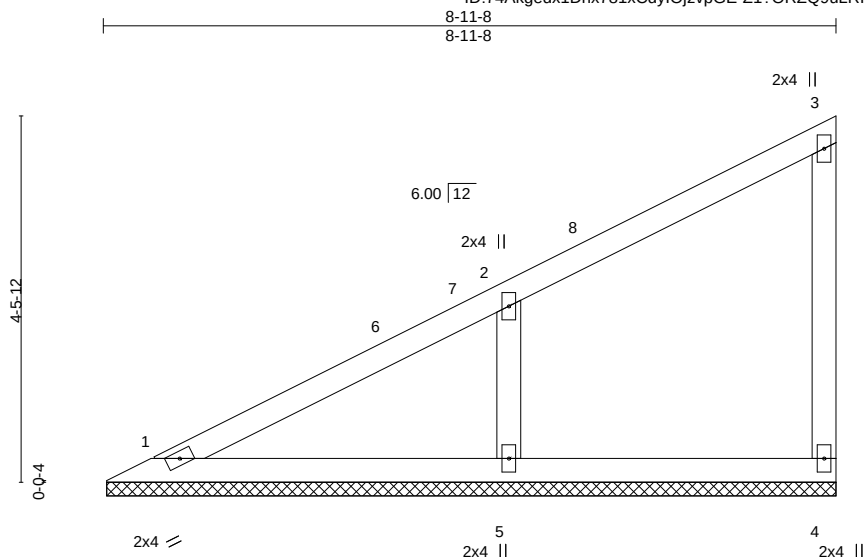
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:54 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-Z1?ORZQ9uLRPaxqxM3Y3MKBaELw1hmgIUQAqn4z80eJ

Job Reference (optional)



Scale = 1:28.2

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 0.27	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	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-

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=8-11-0, 4=8-11-0, 5=8-11-0
Max Horz 1=171(LC 9)
Max Uplift 4=-32(LC 9), 5=-136(LC 12)
Max Grav 1=151(LC 20), 4=124(LC 1), 5=461(LC 1)

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

TOP CHORD 1-2=-263/171
WEBS 2-5=-359/275

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 8-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=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.



June 10, 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

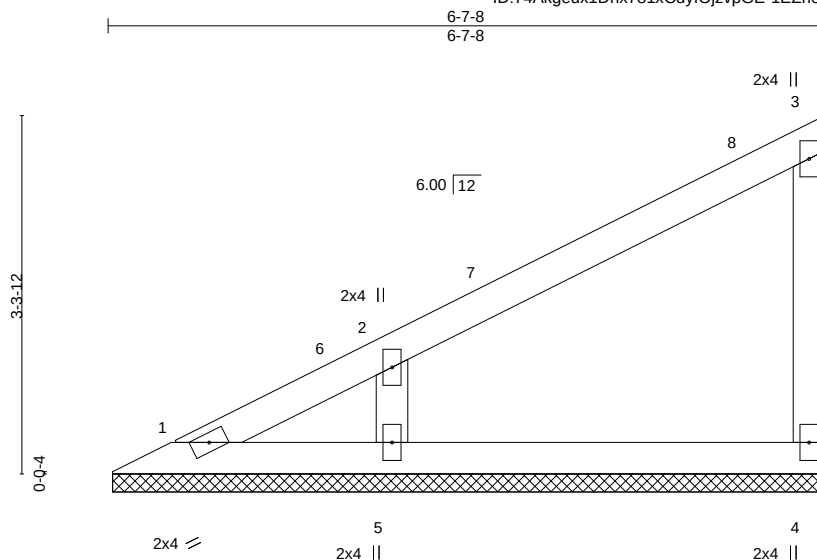
Job 2827360	Truss V9	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498044
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:55 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-1EZneuRnffZGC5P8wn3luYjnQIGxQD?Ri4wNKXz80el



Scale = 1:21.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999	197/144
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: 19 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-7-0, 4=6-7-0, 5=6-7-0
Max Horz 1=122(LC 9)
Max Uplift 4=31(LC 12), 5=121(LC 12)
Max Grav 1=50(LC 20), 4=141(LC 1), 5=358(LC 1)

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

WEBS 2-5=-279/269

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 6-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=121.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10, 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

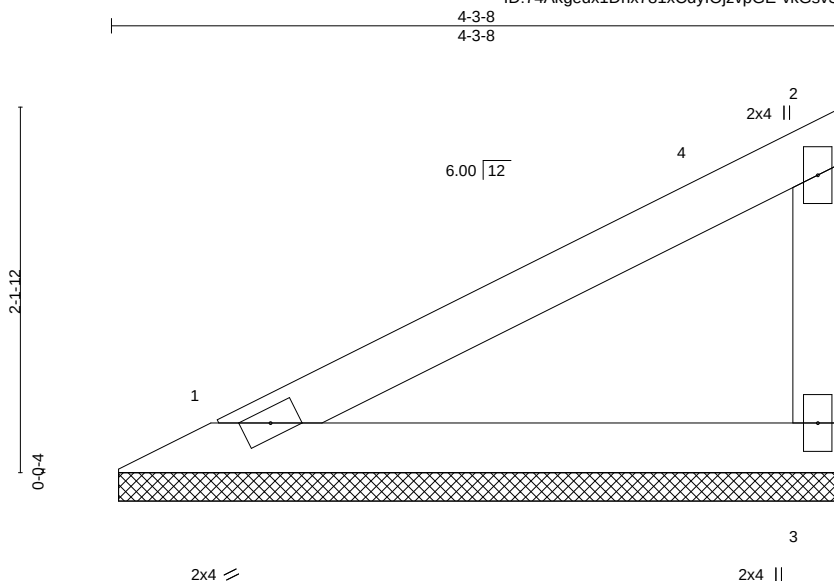
Job 2827360	Truss V10	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498045
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:42 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-vkGsvSHdjfw685vefYKFtphY1VqXtLWXjZGBMnz80eV



Scale = 1:13.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	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 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=4-3-0, 3=4-3-0
Max Horz 1=73(LC 9)
Max Uplift 1=-27(LC 12), 3=-45(LC 12)
Max Grav 1=158(LC 1), 3=158(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.



June 10, 2021

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

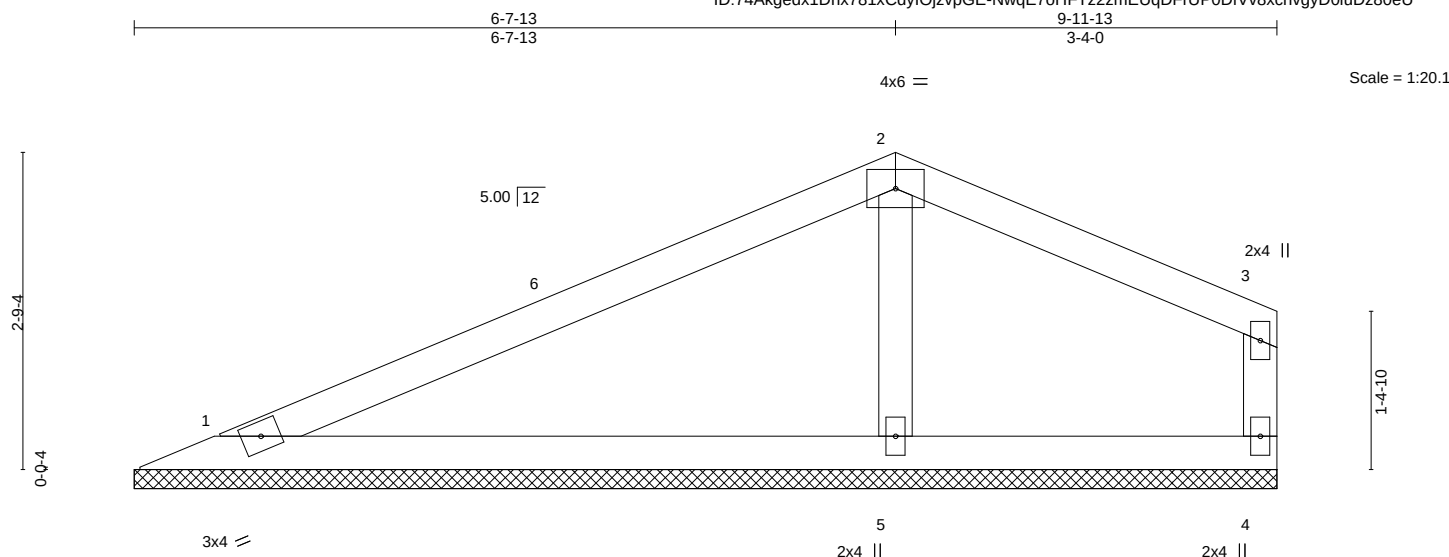
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



										9-11-13							
										9-11-13							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	n/a	-	n/a	999					MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.24	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: 26 lb	FT = 20%	

LUMBER-

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

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

REACTIONS. (size) 1=9-11-13, 4=9-11-13, 5=9-11-13
 Max Horz 1=47(LC 12)
 Max Uplift 1=-49(LC 12), 4=-46(LC 13), 5=-80(LC 12)
 Max Grav 1=234(LC 1), 4=126(LC 26), 5=497(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-353/248

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 6-7-13, Exterior(2E) 6-7-13 to 9-10-1 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10.2021

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

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED WITHER REFERENCE PAGE MM-1475 (Rev. 3/25/2020) BEFORE USE.

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2827360	Truss V13	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498047
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

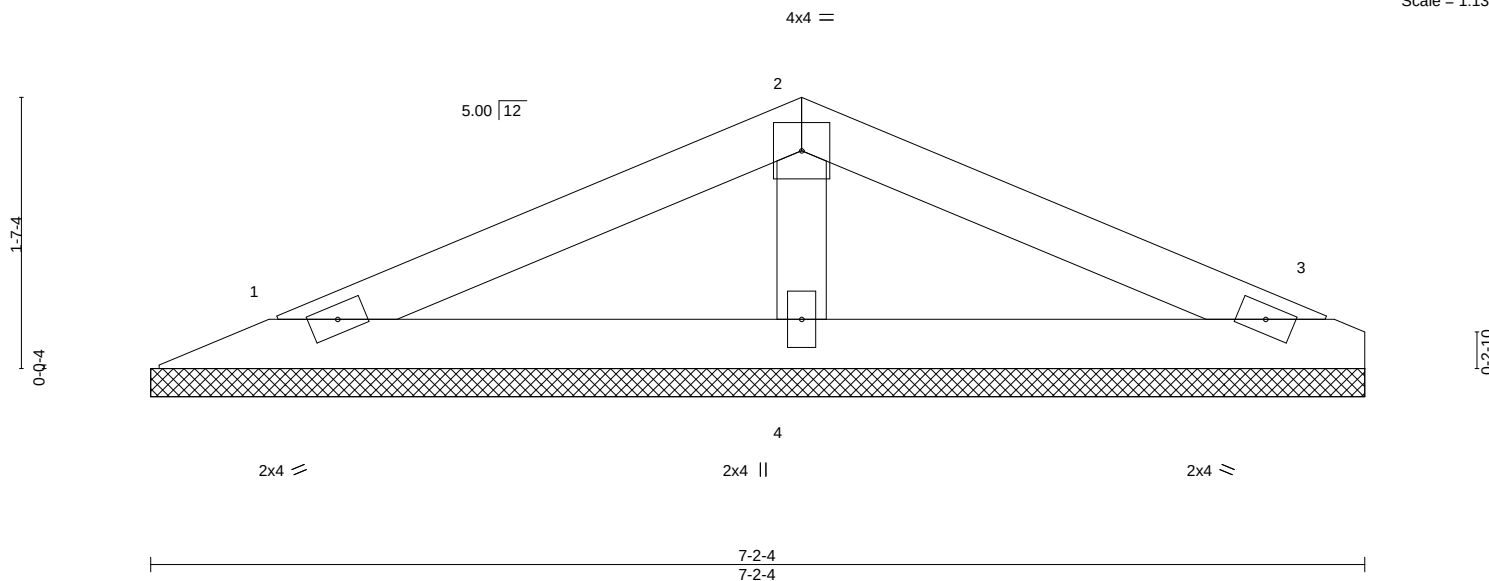
8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:44 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-r6OdK8tEgAQNO30nzNjyEmvOJWdLEaqBtllRgz80eT

Job Reference (optional)



Scale = 1:13.6



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 0.17	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	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
OTHERS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=7-2-4, 3=7-2-4, 4=7-2-4
Max Horz 1=-23(LC 17)
Max Uplift 1=-36(LC 12), 3=-40(LC 13), 4=-22(LC 12)
Max Grav 1=138(LC 1), 3=138(LC 1), 4=281(LC 1)

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

NOTES-

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



June 10, 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

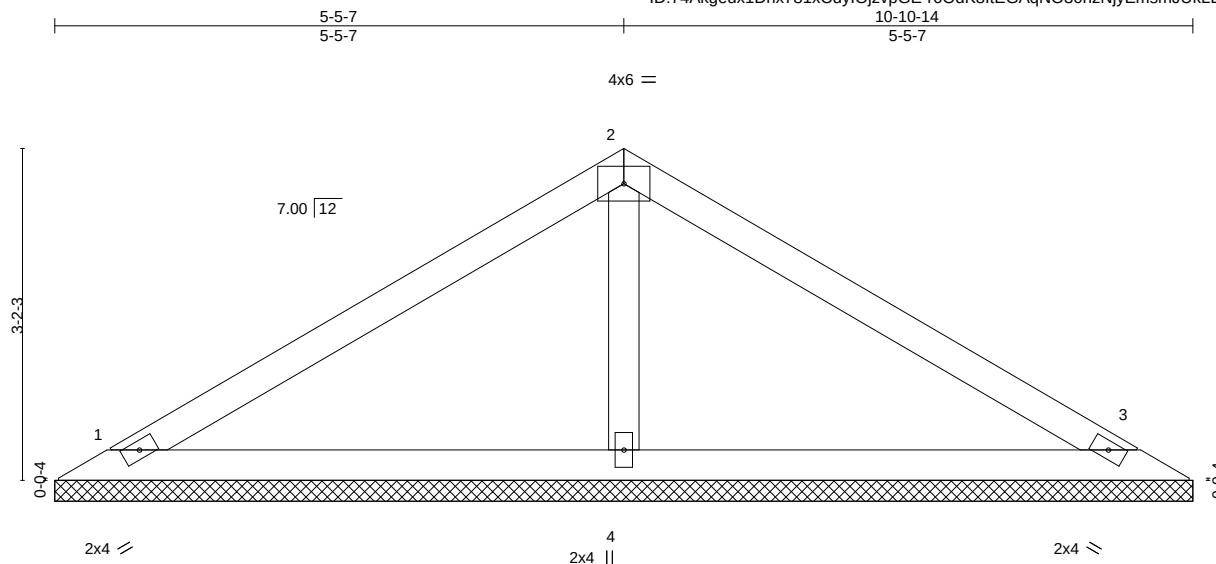
Job 2827360	Truss V14	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498048
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:44 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-r6OdK8tEGaqNO30nzNjyEmsmJUKLE8qBtllRgz80eT



Scale = 1:22.1

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a				
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 28 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=10-10-14, 3=10-10-14, 4=10-10-14
Max Horz 1=75(LC 11)
Max Uplift 1=-48(LC 12), 3=-58(LC 13), 4=-47(LC 12)
Max Grav 1=209(LC 25), 3=209(LC 26), 4=466(LC 1)

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

WEBS 2-4=-317/125

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) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 5-5-7, Exterior(2R) 5-5-7 to 8-5-7, Interior(1) 8-5-7 to 10-4-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

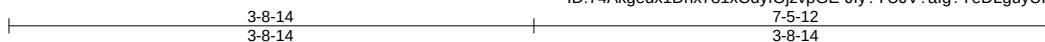
Job 2827360	Truss V15	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498049
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

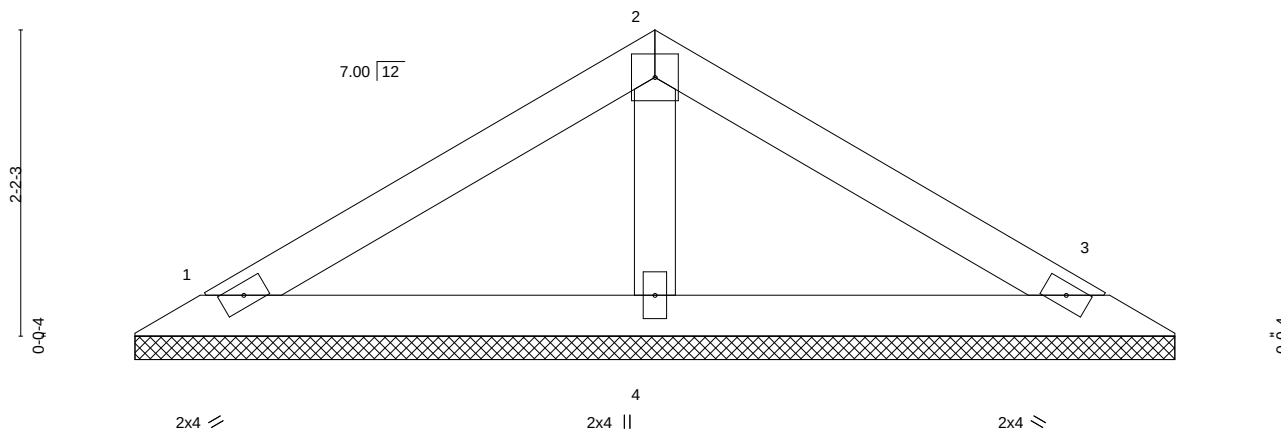
8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:45 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-Jly?YUJV?alg?YeDLguyURJ4wjsn4hrzPXVs6z80eS



4x4 =

Scale = 1:16.4



0-0-7
0-0-7

7-5-12
7-5-5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	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 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-4-14, 3=7-4-14, 4=7-4-14
Max Horz 1=49(LC 9)
Max Uplift 1=-38(LC 12), 3=-45(LC 13), 4=-16(LC 12)
Max Grav 1=151(LC 1), 3=151(LC 1), 4=274(LC 1)

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

NOTES-

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



June 10, 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 2827360	Truss V16	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO 146498050
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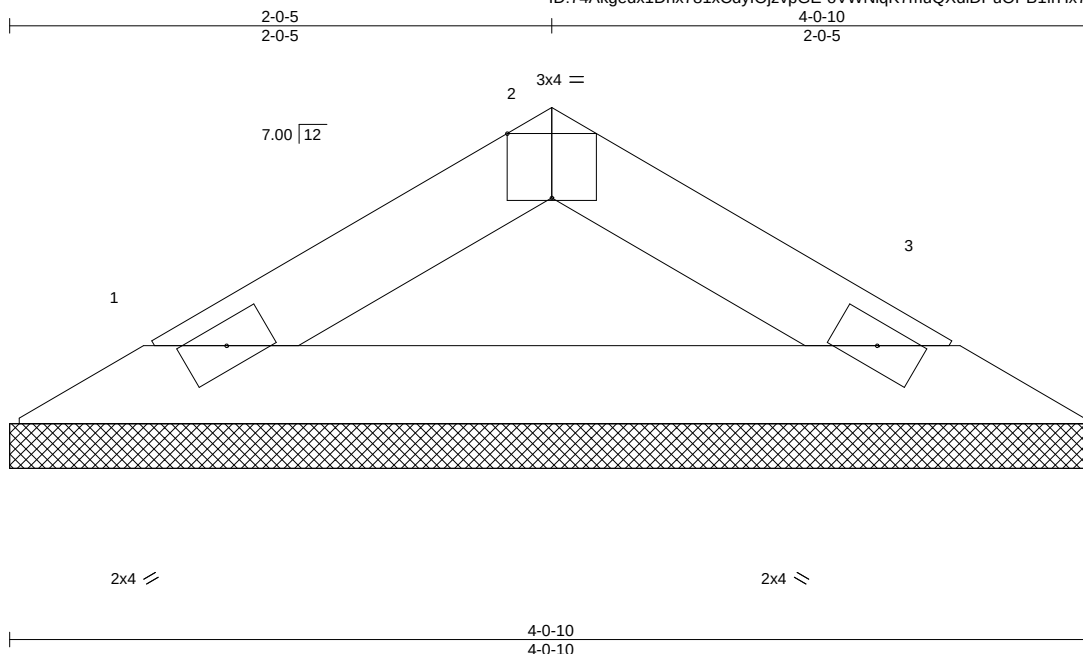
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:46 2021 Page 1

ID:74Akgedx1Dhx781xCdyI0jzvpGE-oVWNlqK7muQXdiDPuOPB1frHx7Czp8V7eBEPVYz80eR

Job Reference (optional)



Scale = 1:8.6

Plate Offsets (X,Y)--		[2:0-2-0,Edge]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a
TCDL	10.0	Lumber DOL	1.15	BC	0.09	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					
						PLATES	GRIP		
						MT20	197/144		
						Weight: 8 lb	FT = 20%		

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=4-0-10, 3=4-0-10
Max Horz 1=-23(LC 8)
Max Uplift 1=-22(LC 12), 3=-22(LC 13)
Max Grav 1=134(LC 1), 3=134(LC 1)

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

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) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10, 2021

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

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



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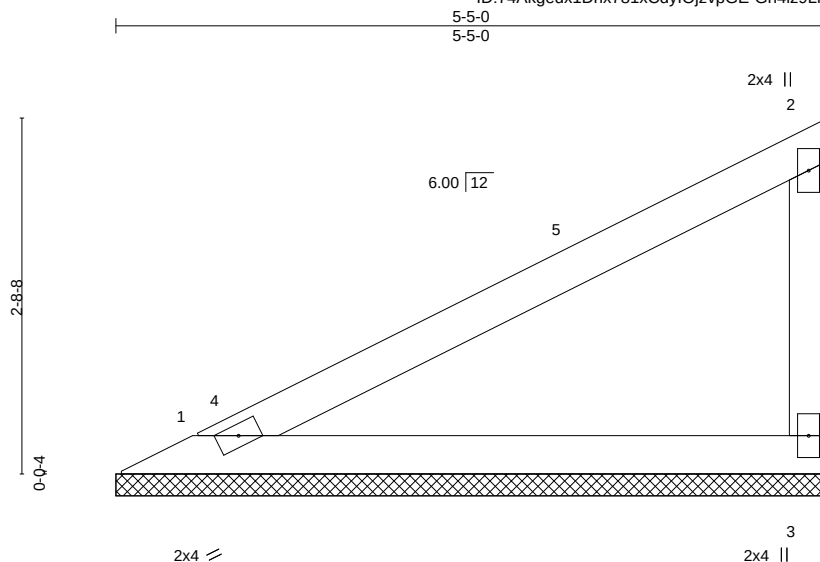
Job 2827360	Truss V17	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORNE #10/MO I46498051
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:47 2021 Page 1

ID:74Akgedx1Dhx781xCdyIOjzvpGE-Gh4Iz9LmXBZOEsobS5wQasOLrWW7YblGr_y2_z80eQ



Scale = 1:17.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	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: 15 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=5-5-0, 3=5-5-0
Max Horz 1=97(LC 9)
Max Uplift 1=-35(LC 12), 3=-60(LC 12)
Max Grav 1=209(LC 1), 3=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 and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-3-4 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) 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.



June 10,2021

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

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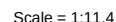
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 12:07:48 2021 Page 1
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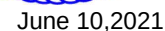


LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-5-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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; TCFLD=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.



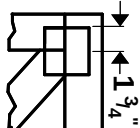
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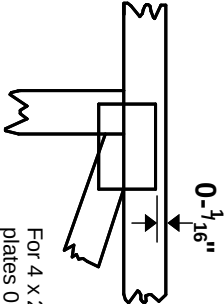
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

*** Plate location details available in MITek 20120 software or upon request.**

PLATE SIZE

4 X 4

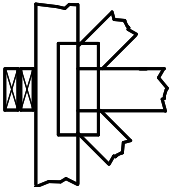
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



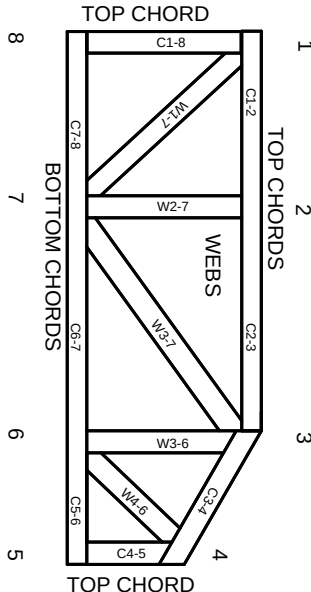
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: 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 T or 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.