RE: 2766770
Summit/137 Hawthorne

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

Site Information:

Customer: Project Name: 2766770
Lot/Block: Model:
Address: Subdivision:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: N/A Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 44 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45809158	A1	6/29/2021	21	I45809178	C4	6/29/2021
2	I45809159	A2	6/29/2021	22	I45809179	C5	6/29/2021
3	I45809160	A8	6/29/2021	23	I45809180	C6	6/29/2021
4	I45809161	A9	6/29/2021	24	I45809181	CJ1	6/29/2021
5	I45809162	A9A	6/29/2021	25	I45809182	D1	6/29/2021
6	I45809163	A9B	6/29/2021	26	I45809183	D2	6/29/2021
7	I45809164	A10	6/29/2021	27	I45809184	E1	6/29/2021
8	I45809165	A10A	6/29/2021	28	I45809185	E2	6/29/2021
9	I45809166	A12	6/29/2021	29	I45809186	E3	6/29/2021
10	I45809167	A13	6/29/2021	30	I45809187	F1	6/29/2021
11	I45809168	A15	6/29/2021	31	I45809188	J1	6/29/2021
12	I45809169	B1	6/29/2021	32	I45809189	LG1	6/29/2021
13	I45809170	B2	6/29/2021	33	I45809190	M1	6/29/2021
14	I45809171	B3	6/29/2021	34	I45809191	V1	6/29/2021
15	I45809172	B5	6/29/2021	35	I45809192	V2	6/29/2021
16	I45809173	B6	6/29/2021	36	I45809193	V3	6/29/2021
17	I45809174	B7	6/29/2021	37	I45809194	V4	6/29/2021
18	I45809175	C1	6/29/2021	38	I45809195	V5	6/29/2021
19	I45809176	C2	6/29/2021	39	I45809196	V6	6/29/2021
20	I45809177	C3	6/29/2021	40	I45809197	V7	6/29/2021

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

Truss Design Engineer's Name: Sevier, Scott

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

Missouri COA: 001193

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.

June 29, 2021

Sevier, Scott

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

RE: 2766770 - Summit/137 Hawthorne

Site Information:

Project Customer: Project Name: 2766770
Lot/Block: Subdivision:
Address:
City, County: State:

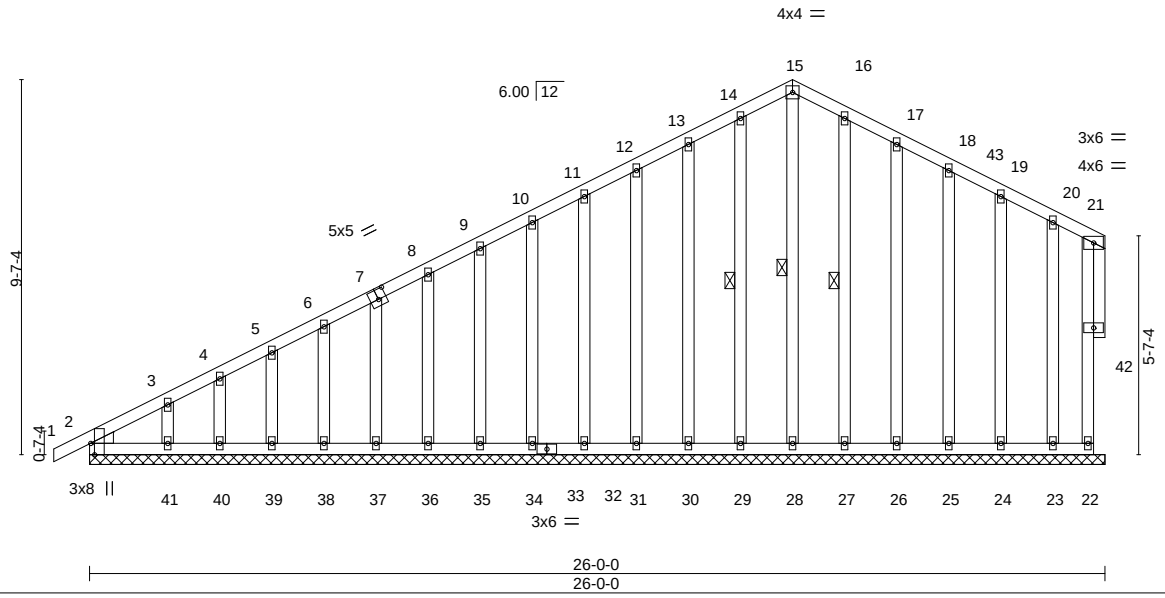
No.	Seal#	Truss Name	Date
41	I45809198	V8	6/29/2021
42	I45809199	V9	6/29/2021
43	I45809200	V10	6/29/2021
44	I45809201	V11	6/29/2021

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A1	GABLE	1	1	I45809158
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:12 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-yM?mpa1_PCCwizV5nDsfH?3f54sxNABSTVmA1szNqGj

-0-11-0 18-0-0 26-0-0
0-11-0 18-0-0 8-0-0

Scale = 1:59.0



26-0-0
26-0-0

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

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	0.17	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	-0.00	22	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 189 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 15-28, 14-29, 16-27

REACTIONS. All bearings 26-0-0.
(lb) - Max Horz 2=251(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 27, 26, 25, 24, 23
Max Grav All reactions 250 lb or less at joint(s) 2, 22, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 27, 26, 25, 24, 23

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-260/160, 14-15=-139/251, 15-16=-139/251

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 18-0-0, Corner(3R) 18-0-0 to 21-0-0, Exterior(2N) 21-0-0 to 25-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 27, 26, 25, 24, 23.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A2	COMMON	6	1	I45809159
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:25 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-4sHhY1B8LBr4mz?b2RbiJl6lzJ93w0HMS1QM_czNqGW

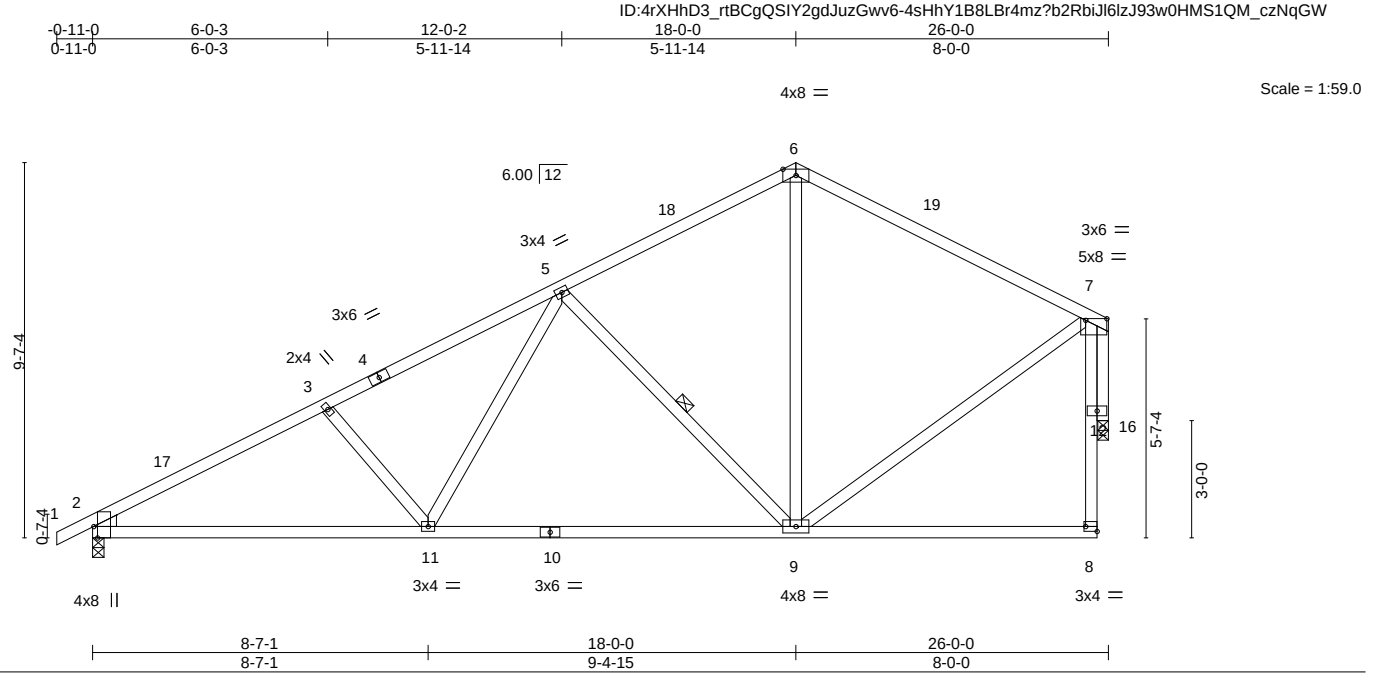


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [7:0-6-8,0-0-8], [8:Edge,0-1-8]

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	0.67	Vert(LL)	-0.14	9-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.32	9-11	>967	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.14	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 116 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
WEDGE	
Left: 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 5-9

REACTIONS. (size) 2=0-3-8, 16=0-3-4
Max Horz 2=214(LC 12)
Max Uplift 2=-173(LC 12), 16=-140(LC 12)
Max Grav 2=1229(LC 1), 16=1136(LC 1)

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

TOP CHORD	2-3=-1949/273, 3-5=-1706/267, 5-6=-901/214, 6-7=-922/192
BOT CHORD	2-11=-374/1664, 9-11=-264/1207
WEBS	3-11=-346/178, 5-11=-71/501, 5-9=-730/245, 6-9=-39/353, 7-9=-105/756, 7-16=-1148/179

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 18-0-0, Exterior(2R) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 25-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=173, 16=140.
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.

April 26,2021

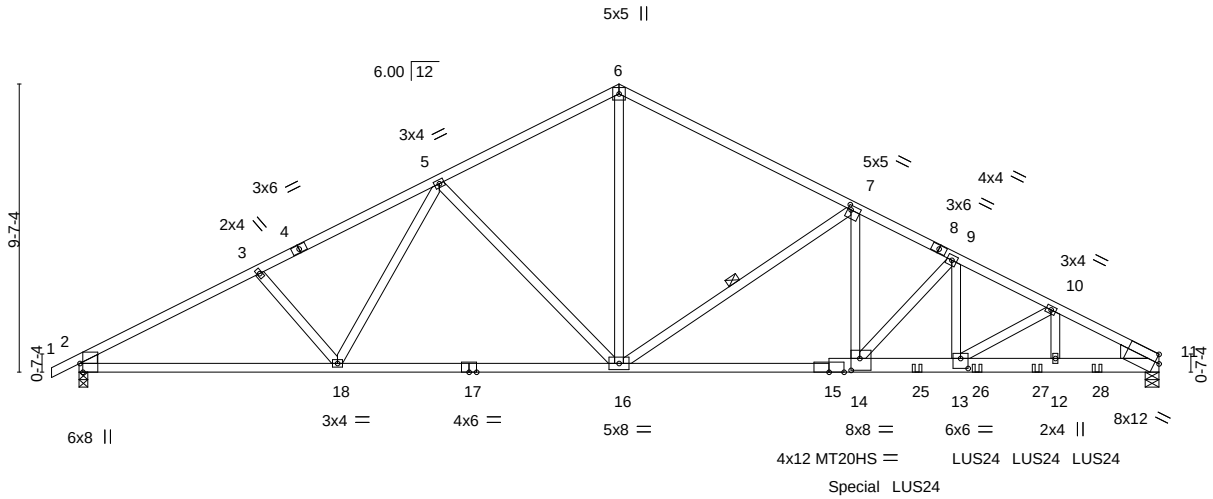
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A8	COMMON GIRDER	1	2	I45809160
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:26 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-Y3r3lNCm6VzxO7anc96xsyestjRbfJQWhh9wW2zNqGV

-0-11-0 5-0-5 6-0-3 8-7-6 12-0-2 18-0-0 25-10-9 29-2-14 32-6-9 36-0-0
0-11-0 5-0-5 0-11-15 2-7-3 3-4-12 5-11-14 7-10-9 3-4-5 3-3-11 3-5-7

Scale = 1:76.8



6-0-3 8-7-6 12-0-2 18-0-0 25-10-9 29-2-14 32-6-9 36-0-0
6-0-3 2-7-3 3-4-12 5-11-14 7-10-9 3-4-5 3-3-11 3-5-7

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [7:0-1-4,0-1-12], [11:Edge,0-3-7], [13:0-3-0,0-4-0], [14:0-3-8,0-4-12]

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	0.91	Vert(LL)	-0.28	14-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.53	16-18	>819	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.15	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 323 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E *Except* 1-4,8-11: 2x4 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E *Except* 11-15: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-16

REACTIONS. (size) 2=0-3-8, 11=0-5-8
Max Horz 2=157(LC 12)
Max Uplift 2=-377(LC 8), 11=-750(LC 9)
Max Grav 2=3135(LC 1), 11=6457(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5826/686, 3-5=-5598/683, 5-6=-5034/631, 6-7=-5065/625, 7-9=-10374/1185, 9-10=-11675/1339, 10-11=-11662/1351
BOT CHORD 2-18=-680/5079, 16-18=-557/4835, 14-16=-918/9279, 13-14=-1095/10418, 12-13=-1162/10330, 11-12=-1162/10330
WEBS 6-16=-438/3956, 7-16=-5904/803, 7-14=-528/5242, 9-14=-1667/259, 9-13=-225/1624, 10-12=-227/301, 10-13=-332/281, 5-16=-641/261, 5-18=-99/404, 3-18=-257/197

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-2-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; 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
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=377, 11=750.
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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 27-11-4 from the left end to 33-11-4 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

Continued on page 2

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4212 lb down and 420 lb up at 25-10-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-6=-70, 6-11=-70, 19-22=-20
   Concentrated Loads (lb)
   Vert: 14=-4028(F) 25=-565(F) 26=-565(F) 27=-565(F) 28=-565(F)

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A9	Common	4	1	I45809161
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:28 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-URypA2D0e6DfdRjAja9PxNkHOX9H7MFp8_e1bxzNqGT

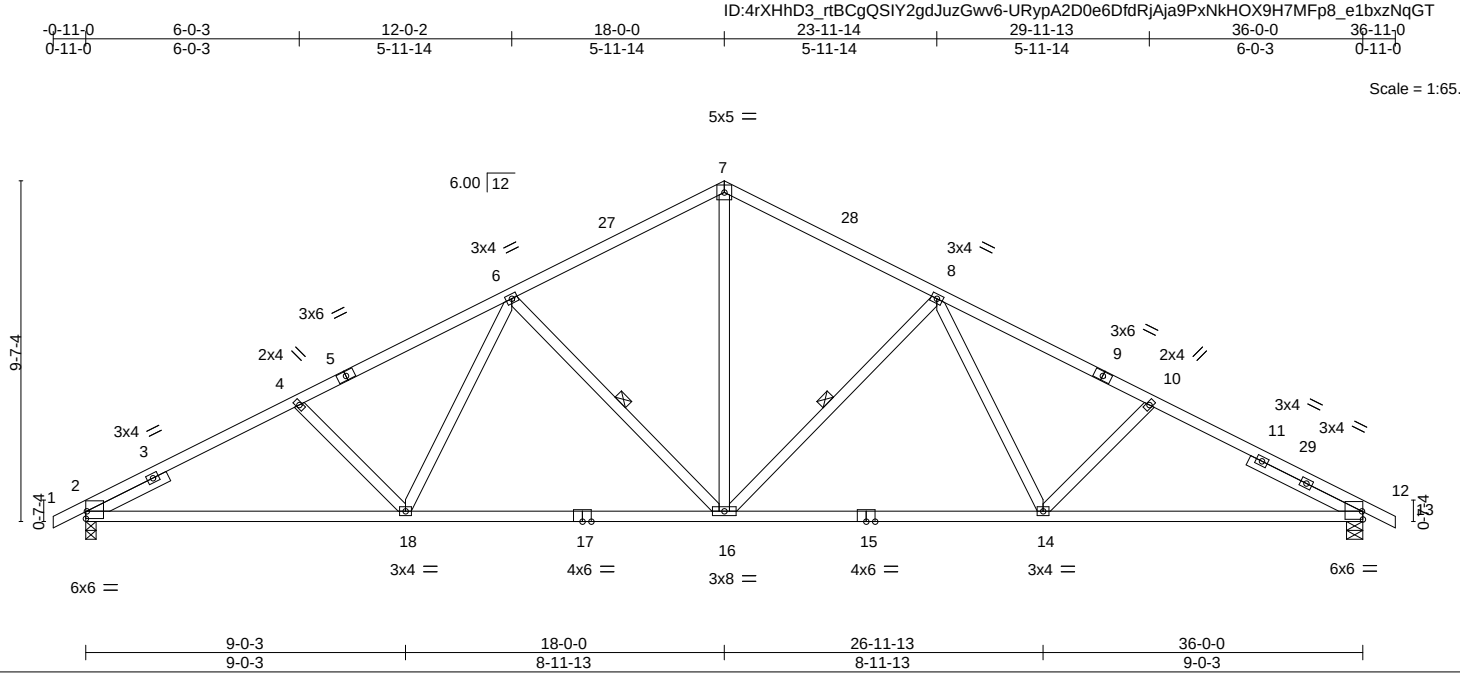


Plate Offsets (X,Y)-- [2:Edge,0-2-8], [12:Edge,0-2-12]

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	0.59	Vert(LL)	-0.18	16-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.40	16-18	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.13	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 151 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 2-6-0, Right 2x4 SPF No.2 -t 3-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-16, 6-16

REACTIONS. (size) 2=0-3-8, 12=0-5-8
Max Horz 2=150(LC 12)
Max Uplift 2=-221(LC 12), 12=-222(LC 13)
Max Grav 2=1677(LC 1), 12=1684(LC 1)

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

TOP CHORD	2-4=-2734/362, 4-6=-2538/346, 6-7=-1850/321, 7-8=-1850/320, 8-10=-2520/343, 10-12=-2681/358
BOT CHORD	2-18=-384/2375, 16-18=-247/2036, 14-16=-138/2029, 12-14=-230/2343
WEBS	7-16=-147/1183, 8-16=-702/241, 8-14=-49/409, 10-14=-262/164, 6-16=-710/242, 6-18=-51/422, 4-18=-283/167

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 18-0-0, Exterior(2R) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 36-11-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=221, 12=222.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

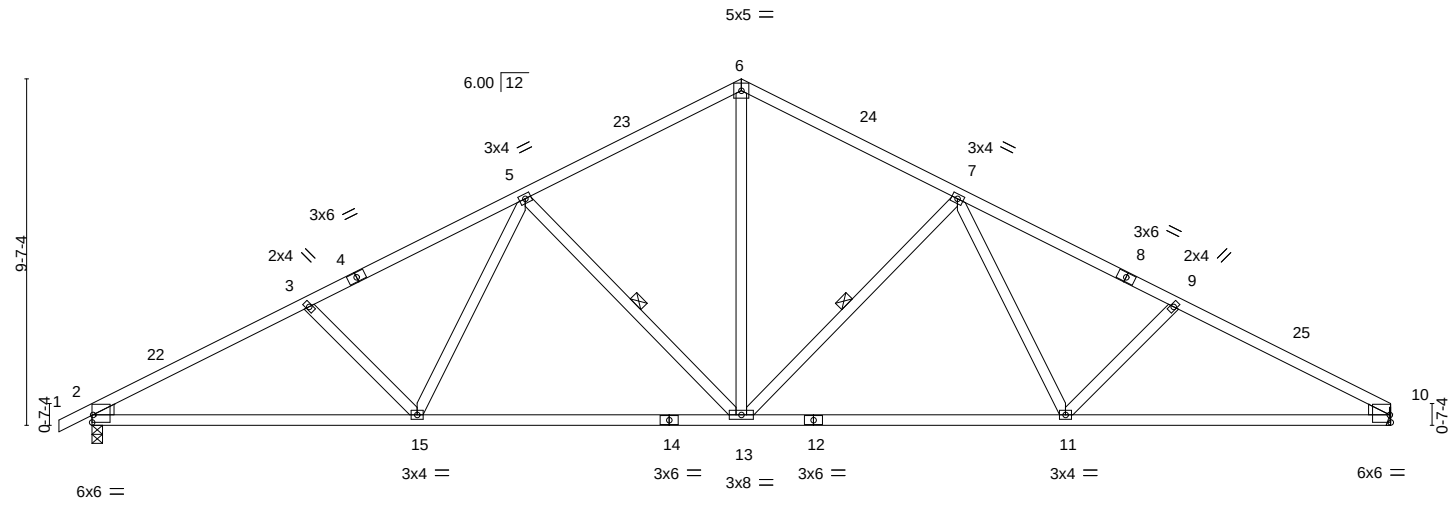
Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A9A	COMMON	2	1	I45809162
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:29 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-yeWCOOEePQLWFbIMHHgeTbGSBxUOspOyNeOa7NzNqGS

-0-11-0	6-0-3	12-0-2	18-0-0	23-11-14	29-11-13	36-0-0
0-11-0	6-0-3	5-11-14	5-11-14	5-11-14	5-11-14	6-0-3

Scale: 3/16"=1'



9-0-3	18-0-0	26-11-13	36-0-0
9-0-3	8-11-13	8-11-13	9-0-3

Plate Offsets (X,Y)-- [2:Edge,0-2-8], [10:Edge,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	0.59	Vert(LL)	-0.20	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.43	13-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.13	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 144 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.
WEBS	1 Row at midpt 7-13, 5-13

REACTIONS. (size) 2=0-3-8, 10=Mechanical
Max Horz 2=157(LC 16)
Max Uplift 2=-220(LC 12), 10=-202(LC 13)
Max Grav 2=1685(LC 1), 10=1619(LC 1)

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

TOP CHORD	2-3=-2867/372, 3-5=-2610/353, 5-6=-1890/325, 6-7=-1889/327, 7-9=-2615/355, 9-10=-2873/374
BOT CHORD	2-15=-402/2472, 13-15=-258/2082, 11-13=-157/2083, 10-11=-262/2480
WEBS	6-13=-152/1214, 7-13=-725/244, 7-11=-57/449, 9-11=-332/175, 5-13=-722/244, 5-15=-56/448, 3-15=-328/174

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 18-0-0, Exterior(2R) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 36-0-0 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
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) 2=220, 10=202.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A9B	ROOF SPECIAL	1	1	I45809163
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:31 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-v0eyo4Fvw1cEUuSlOii7Z0Mkvk8GKcgFqythCGzNqGQ

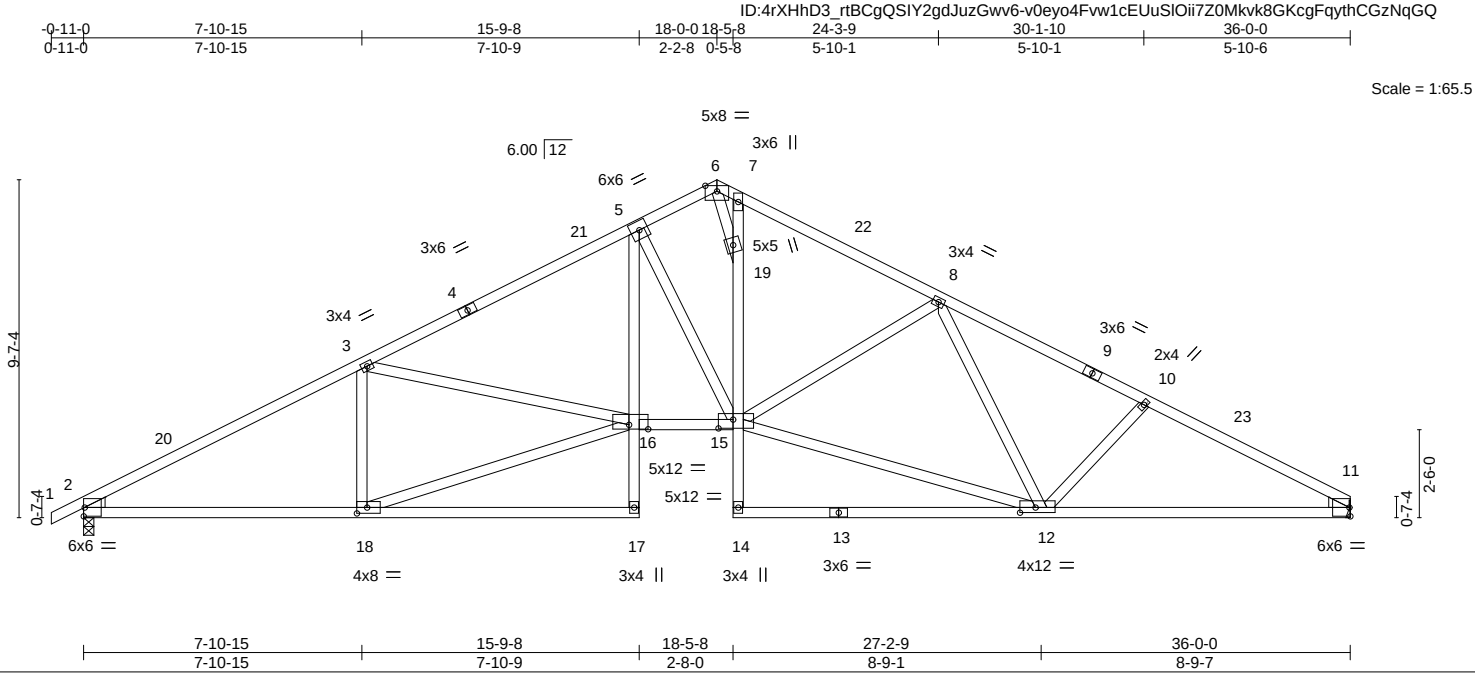


Plate Offsets (X,Y)-- [12:0-5-5,0-1-12], [15:0-5-0,0-3-0], [16:0-6-8,0-1-8], [18:0-3-8,0-2-0]

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	0.90	Vert(LL)	-0.26	15-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.51	12-14	>849	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.23	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 177 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
6-9: 2x4 SP 2400F 2.0E, 1-4: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2 *Except*
7-14: 2x4 SP 2400F 2.0E
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 or 10-0-0 oc bracing, Except:
9-8-9 oc bracing: 2-18
6-0-0 oc bracing: 12-14.

REACTIONS. (size) 2=0-3-8, 11=Mechanical
Max Horz 2=152(LC 16)
Max Uplift 2=-221(LC 12), 11=-201(LC 13)
Max Grav 2=1686(LC 1), 11=1610(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2882/343, 3-5=-3037/380, 5-6=-2305/357, 6-7=-2469/429, 7-8=-2590/366, 8-10=-2645/362, 10-11=-2889/372
BOT CHORD 2-18=-357/2431, 5-16=-119/990, 15-16=-220/2580, 15-19=-246/1797, 7-19=-21/415, 11-12=-257/2469
WEBS 3-18=-618/188, 16-18=-384/2532, 3-16=-54/286, 5-15=-1083/262, 12-15=-214/2554, 8-15=-378/225, 8-12=-339/91, 10-12=-295/180, 6-19=-289/1467

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-8-3, Interior(1) 2-8-3 to 18-0-0, Exterior(2R) 18-0-0 to 21-7-3, Interior(1) 21-7-3 to 35-11-4 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
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) 2=221, 11=201.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A10	ROOF SPECIAL	1	1	I45809164
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:14 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-ul6XEG2ExpTeyHfUvdv7NQ9thuM9rwWlwpFH5lzNqGh

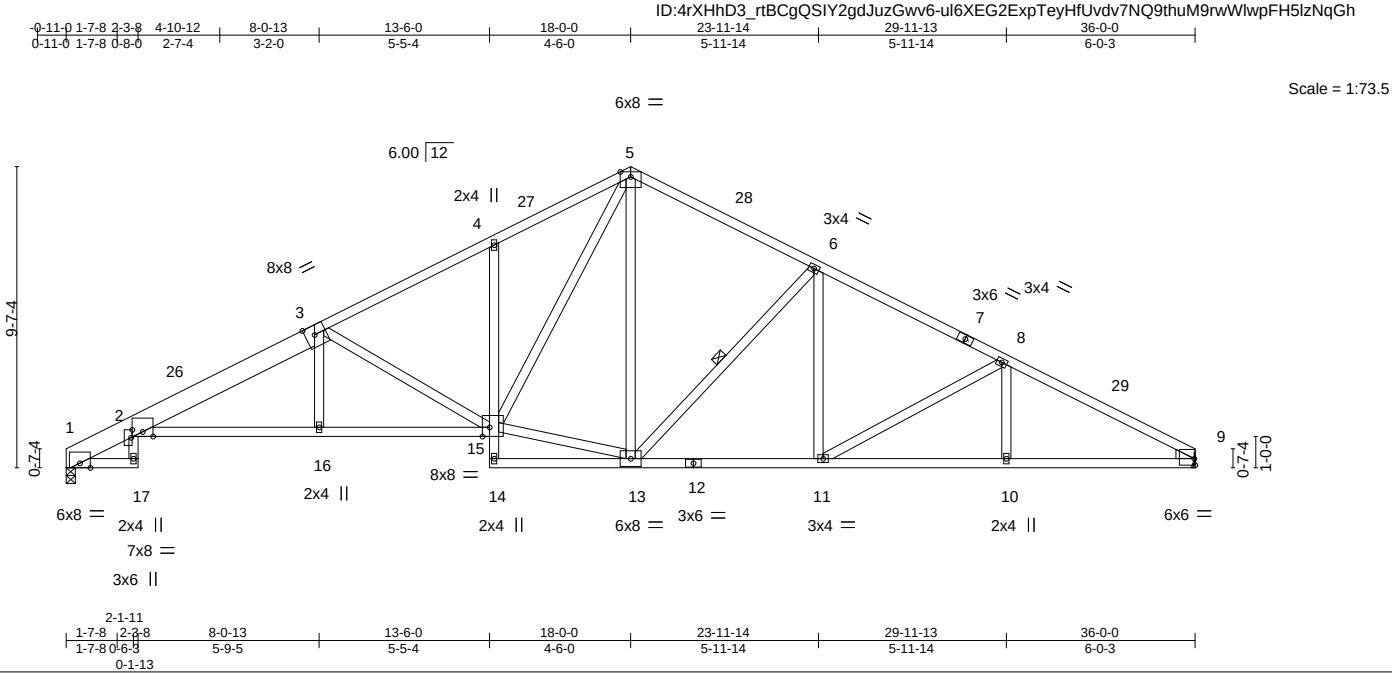


Plate Offsets (X,Y)-- [2:0-3-0,0-0-7], [3:0-3-8,Edge], [9:Edge,0-2-8], [15:0-2-12,Edge]

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	0.67	Vert(LL)	-0.26	16-25	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.49	16-25	>884	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.27	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 177 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-15: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-13

REACTIONS. (size) 1=0-3-8, 9=Mechanical
Max Horz 1=146(LC 12)
Max Uplift 1=-200(LC 12), 9=-202(LC 13)
Max Grav 1=1616(LC 1), 9=1614(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-18=-681/187, 2-3=-3417/429, 3-4=-2604/355, 4-5=-2549/436, 5-6=-1870/330, 6-8=-2427/336, 8-9=-2863/360
BOT CHORD 2-16=-450/3134, 15-16=-448/3142, 4-15=-334/169, 11-13=-148/2096, 10-11=-250/2470, 9-10=-250/2470
WEBS 3-16=0/282, 3-15=-1039/247, 13-15=-70/1502, 5-15=-301/1386, 5-13=-133/422, 6-13=-768/228, 6-11=-26/394, 8-11=-462/161

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=15ft; 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 18-0-0, Exterior(2R) 18-0-0 to 21-0-0 , Interior(1) 21-0-0 to 36-0-0 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=200, 9=202.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

April 26,2021

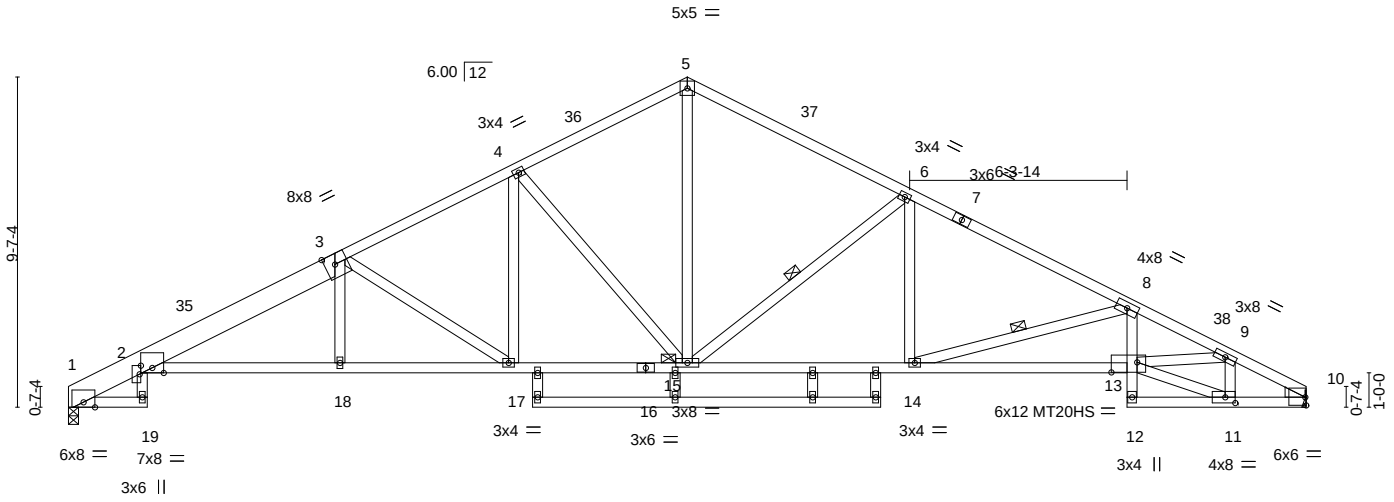
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A10A	Roof Special	1	1	I45809165
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:16 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-r8EHfy4VTQjMBbps02xbSrEDBh2xJoM2O7kOAdzNqGf

2-3-8	7-10-12	12-11-6	13-6-0	18-0-0	23-7-8	24-5-10	30-9-8	33-9-8	36-0-0
2-3-8	5-7-4	5-0-10	0-6-10	4-6-0	5-7-8	0-10-2	6-3-14	3-0-0	2-2-8

Scale = 1:67.0



2-3-8	7-10-12	12-11-6	13-6-0	17-7-12	18-0-0	21-7-12	23-7-8	24-5-10	30-9-8	33-9-8	36-0-0
2-3-8	5-7-4	5-0-10	0-6-10	4-1-12	0-4-4	3-7-12	1-11-12	0-10-2	6-3-14	3-0-0	2-2-8

Plate Offsets (X,Y)-- [2:0-3-0,0-0-7], [3:0-3-8,Edge], [10:Edge,0-2-13], [11:0-3-8,0-2-0], [13:0-9-0,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.29	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.53	15-17	>809	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.34	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 187 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-16,13-16: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-14, 6-15
JOINTS 1 Brace at Jt(s): 15

REACTIONS. (size) 1=0-3-8, 10=Mechanical
Max Horz 1=146(LC 12)
Max Uplift 1=-200(LC 12), 10=-202(LC 13)
Max Grav 1=1616(LC 1), 10=1614(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-27=-681/187, 2-3=-3431/430, 3-4=-2691/360, 4-5=-2054/338, 5-6=-2088/335, 6-8=-2960/369, 8-9=-4359/520, 9-10=-2624/330
BOT CHORD 2-18=-452/3150, 17-18=-450/3158, 15-17=-255/2325, 14-15=-189/2566, 13-14=-427/4024, 8-13=-37/723, 11-12=-48/268, 10-11=-261/2261
WEBS 3-18=0/256, 3-17=-975/229, 5-15=-166/1380, 9-11=-959/129, 11-13=-227/2125, 9-13=-139/1635, 6-14=-18/534, 8-14=-1514/289, 6-15=-1012/257, 4-17=-75/583, 4-15=-845/233

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; 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 18-0-0, Exterior(2R) 18-0-0 to 21-0-0 , Interior(1) 21-0-0 to 36-0-0 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
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 2x4 MT20 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) 1 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) 1=200, 10=202.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A12	ROOF SPECIAL	3	1	I45809166
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:18 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-nWM14e5l_2z4QuyF8Tz3XGJZhVjoniTKrRDVEWzNqGd

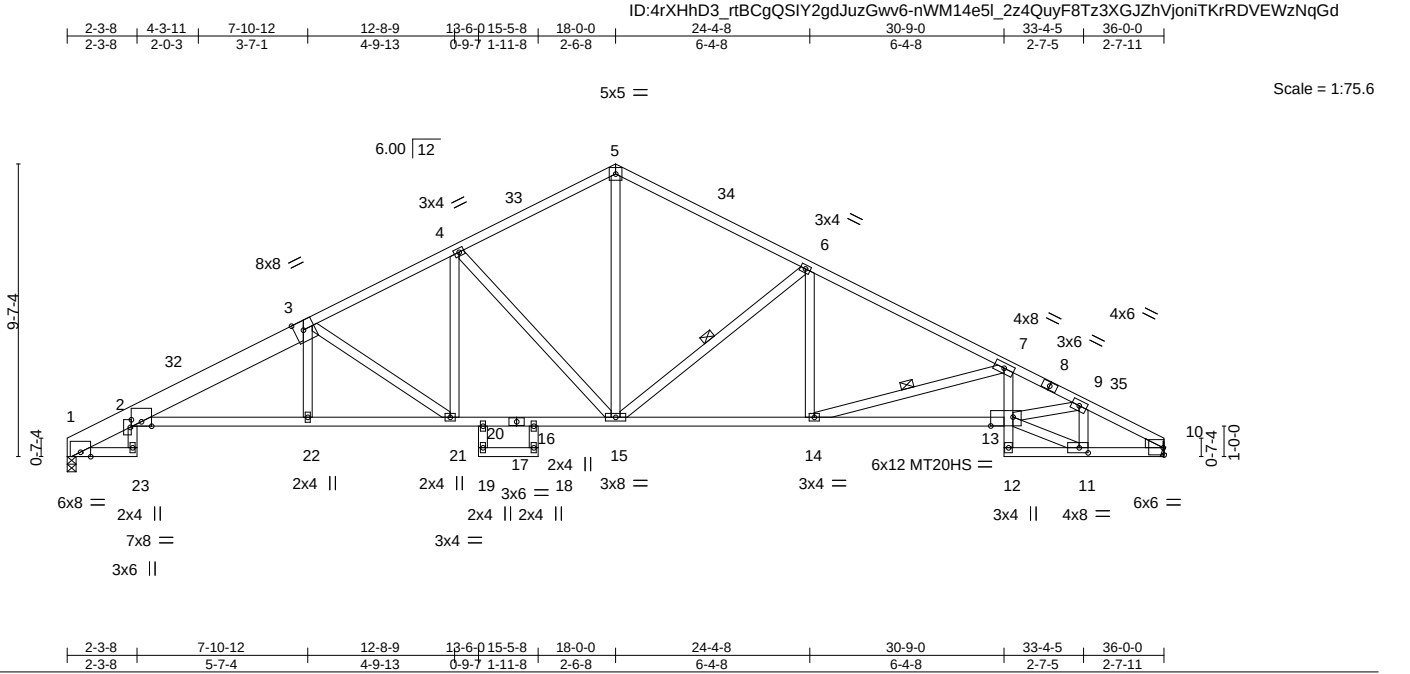


Plate Offsets (X,Y)-- [2:0-3-0,0-0-7], [3:0-3-8,Edge], [10:Edge,0-2-13], [11:0-3-8,0-2-0], [13:0-8-12,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.29	20	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.53	16	>818	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.34	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 175 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-17,13-17: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-15, 7-14

REACTIONS. (size) 1=0-3-8, 10=Mechanical
Max Horz 1=146(LC 12)
Max Uplift 1=-200(LC 12), 10=-202(LC 13)
Max Grav 1=1616(LC 1), 10=1614(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-24=-681/187, 2-3=-3427/428, 3-4=-2716/362, 4-5=-2058/337, 5-6=-2086/336, 6-7=-2946/368, 7-9=-4334/518, 9-10=-2680/338
BOT CHORD 2-22=-449/3145, 21-22=-448/3153, 20-21=-262/2352, 16-20=-262/2301, 15-16=-262/2352, 14-15=-186/2552, 13-14=-425/4006, 7-13=-38/716, 11-12=-49/255, 10-11=-263/2310
WEBS 5-15=-164/1375, 6-15=-1003/255, 6-14=-19/534, 7-14=-1511/290, 11-13=-232/2235, 9-11=-1084/135, 4-15=-855/236, 4-21=-74/581, 3-21=-950/220, 3-22=0/254, 9-13=-136/1603

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=15ft; 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 18-0-0, Exterior(2R) 18-0-0 to 21-0-0 , Interior(1) 21-0-0 to 36-0-0 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
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=200, 10=202.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A13	Roof Special	1	1	I45809167
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:20 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-jvUoVJ7?WfDogC6eFu?XchPsnIPPFfGdJlicJPzNqGb

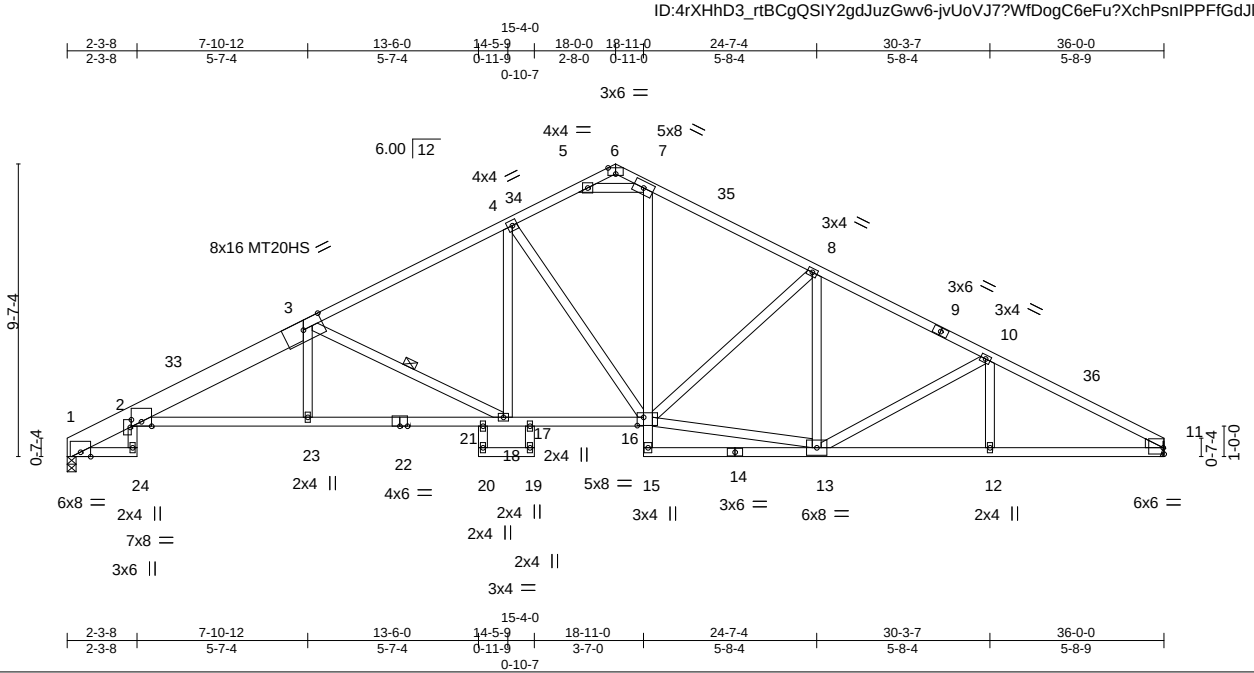


Plate Offsets (X,Y)-- [2:0-3-0,0-0-7], [6:0-3-0,Edge], [11:Edge,0-2-8], [16:0-2-8,0-3-4]

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	0.89	Vert(LL)	-0.30	16-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.55	16-17	>780	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.29	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 181 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	3-6: 2x4 SPF 1650F 1.5E, 1-3: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	2-22: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
WEDGE	
Right: 2x4 SPF No.2	

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-18

REACTIONS. (size) 1=0-3-8, 11=Mechanical
Max Horz 1=146(LC 12)
Max Uplift 1=-200(LC 12), 11=-202(LC 13)
Max Grav 1=1616(LC 1), 11=1614(LC 1)

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

TOP CHORD	2-25=-681/187, 2-3=-3495/448, 3-4=-2513/338, 4-5=-1932/331, 6-7=-102/423, 7-8=-2175/343, 8-10=-2481/338, 10-11=-2862/361
BOT CHORD	2-23=-474/3224, 21-23=-472/3232, 18-21=-450/3236, 17-18=-180/2122, 16-17=-201/2118, 7-16=-149/1129, 12-13=-254/2470, 11-12=-254/2470
WEBS	3-23=0/277, 13-16=-168/2085, 8-16=-486/198, 10-13=-405/150, 4-18=-73/660, 4-16=-609/172, 3-18=-1232/299, 5-7=-2141/413

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=15ft; 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 18-0-0, Exterior(2R) 18-0-0 to 21-0-0 , Interior(1) 21-0-0 to 36-0-0 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
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=200, 11=202.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	A15	GABLE	1	1	I45809168
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:23 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-8U9w7L9upabMXgrCw0ZEEK1YtWd4S9v3?jxGwjzNqGY

-0-11-0 18-0-0 36-0-0
0-11-0 18-0-0 18-0-0

Scale: 3/16"=1'

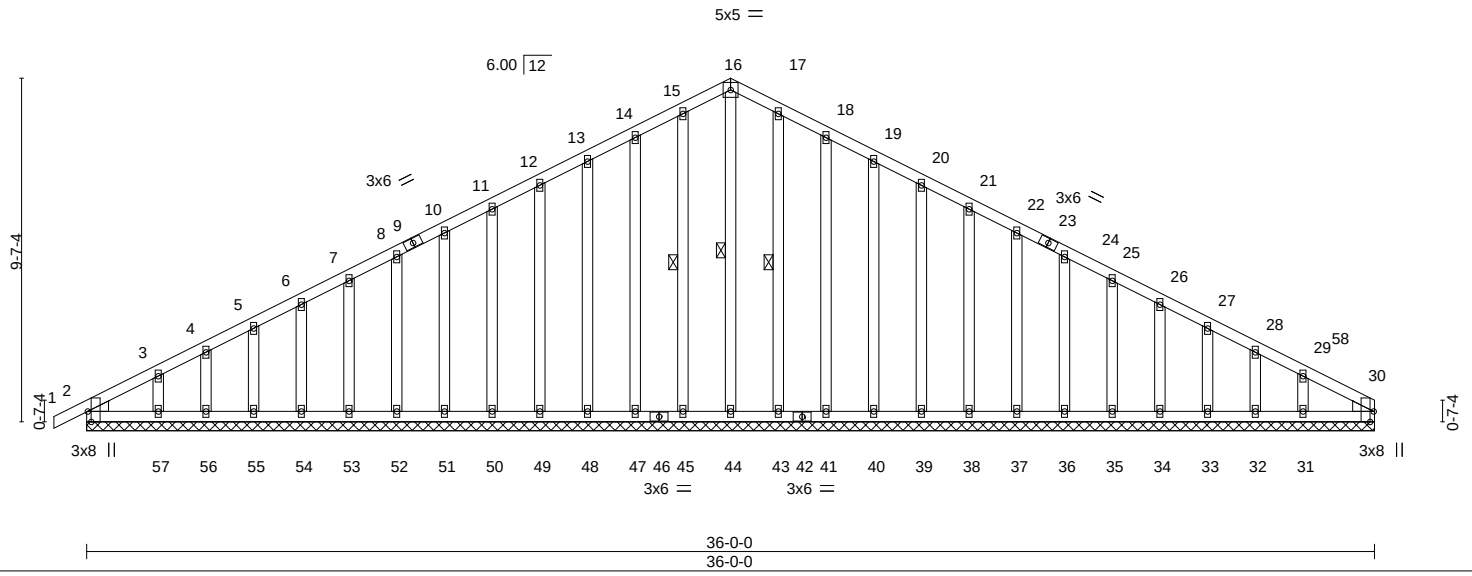


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [30:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	30	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 229 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.
WEBS 1 Row at midpt 16-44, 15-45, 17-43

REACTIONS. All bearings 36-0-0.
(lb) - Max Horz 2=152(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 43, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31
Max Grav All reactions 250 lb or less at joint(s) 2, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 43, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 30, 31

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-15=-101/253, 15-16=-108/272, 16-17=-108/272, 17-18=-101/253

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 18-0-0, Corner(3R) 18-0-0 to 21-0-0, Exterior(2N) 21-0-0 to 36-0-0 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
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 43, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	B1	GABLE	1	1	I45809169
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:32 2021 Page 1
ID:4rXHhD3_rtBCgQSlY2gdJuzGwv6-NDCK0QGXhLk5621xyPDM5Du6o8iR3E9O3ccEkizNqGP

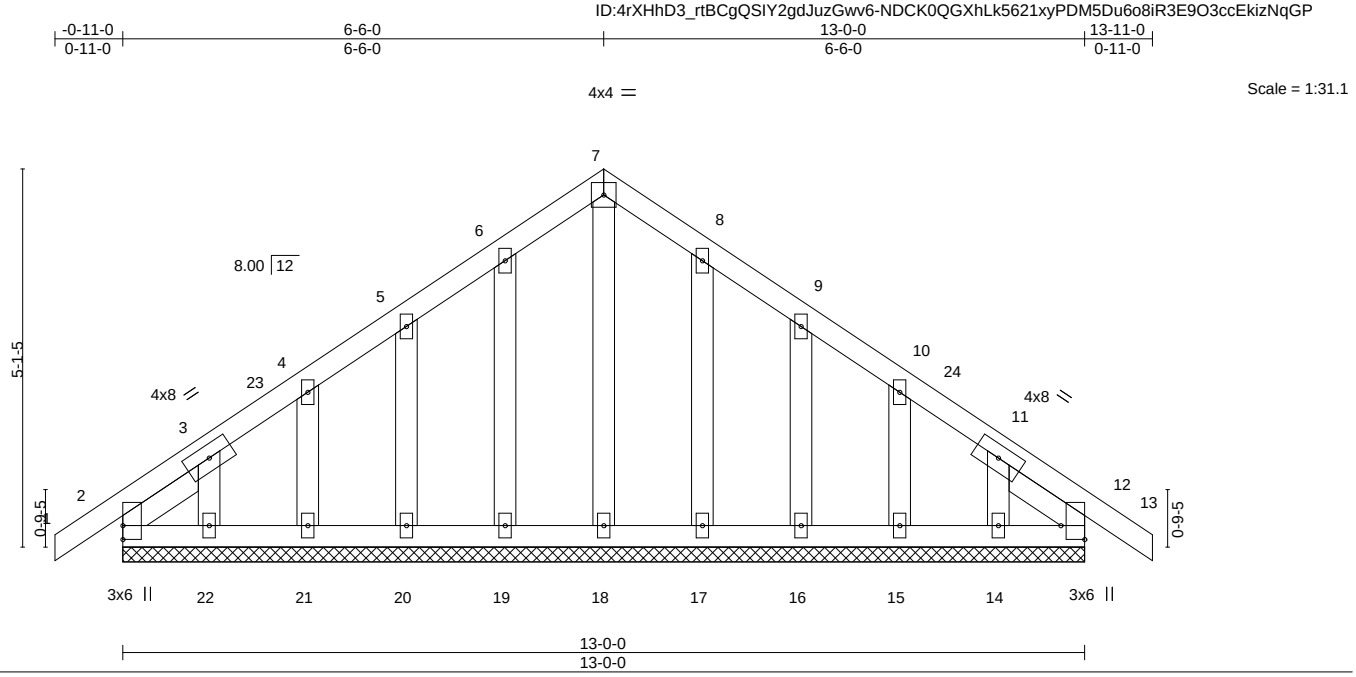


Plate Offsets (X,Y)-- [12:Edge,0-3-14]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	12	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	13	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 65 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 1-3-10, Right 2x4 SPF No.2 -t 1-3-10

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 13-0-0.
(lb) - Max Horz 2=116(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 6-6-0, Corner(3R) 6-6-0 to 9-6-0, Exterior(2N) 9-6-0 to 13-11-0 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) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	B2	Roof Special	1	1	I45809170

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:34 2021 Page 1

ID:4rXHhD3_rtBCgQSlY2gdJuzGwv6-JbK5R6InDy_pLMBK4qGqAe_NsyJXX7YhXw5LpbzNqGN

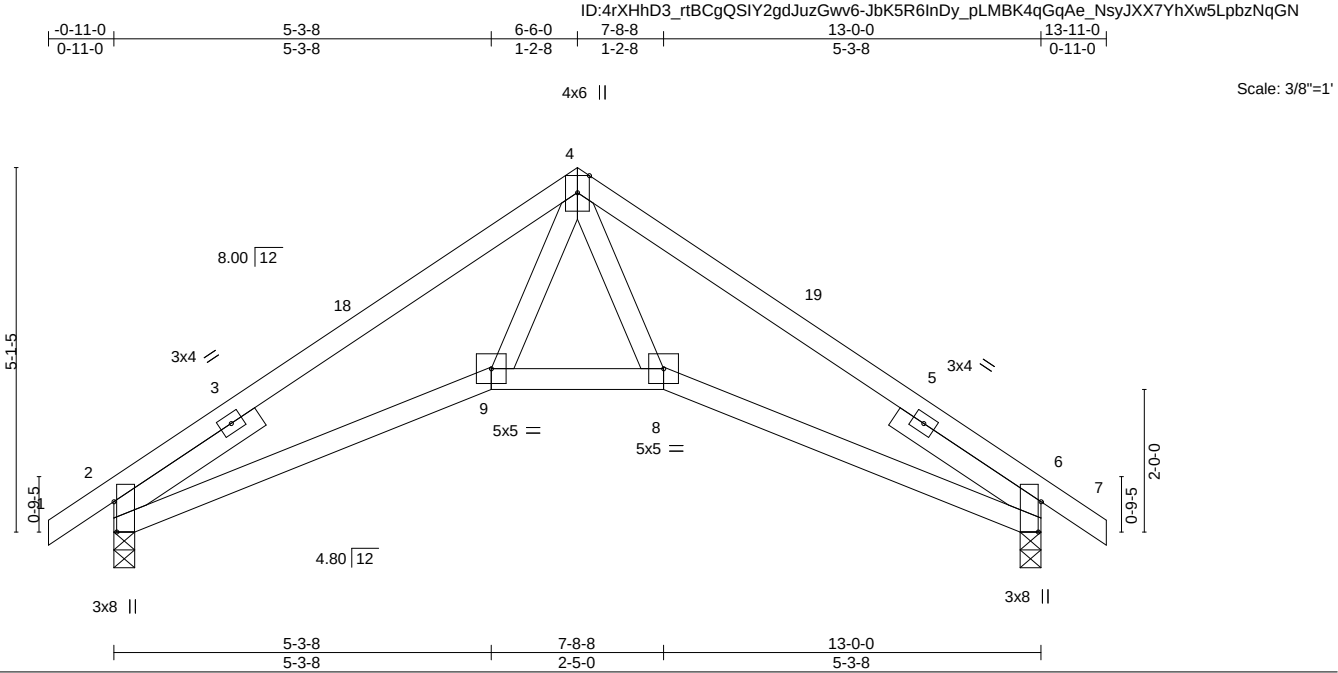


Plate Offsets (X,Y)-- [2:0-5-1,Edge], [6:0-5-1,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.03	8-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.06	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.06	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 49 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 2-6-0, Right 2x4 SPF No.2 -t 2-6-0

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=-116(LC 10)
Max Uplift 2=-84(LC 12), 6=-84(LC 13)
Max Grav 2=649(LC 1), 6=649(LC 1)

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

TOP CHORD	2-4=-1081/160, 4-6=-1081/159
BOT CHORD	2-9=-85/964, 8-9=-45/704, 6-8=-43/962
WEBS	4-8=-1/451, 4-9=-43/481

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-11-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	B3	Roof Special	4	1	I45809171
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:35 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-nouTeSJP_G6gzWmWdYn3jsWYVLflGalrlaruL1zNqGM

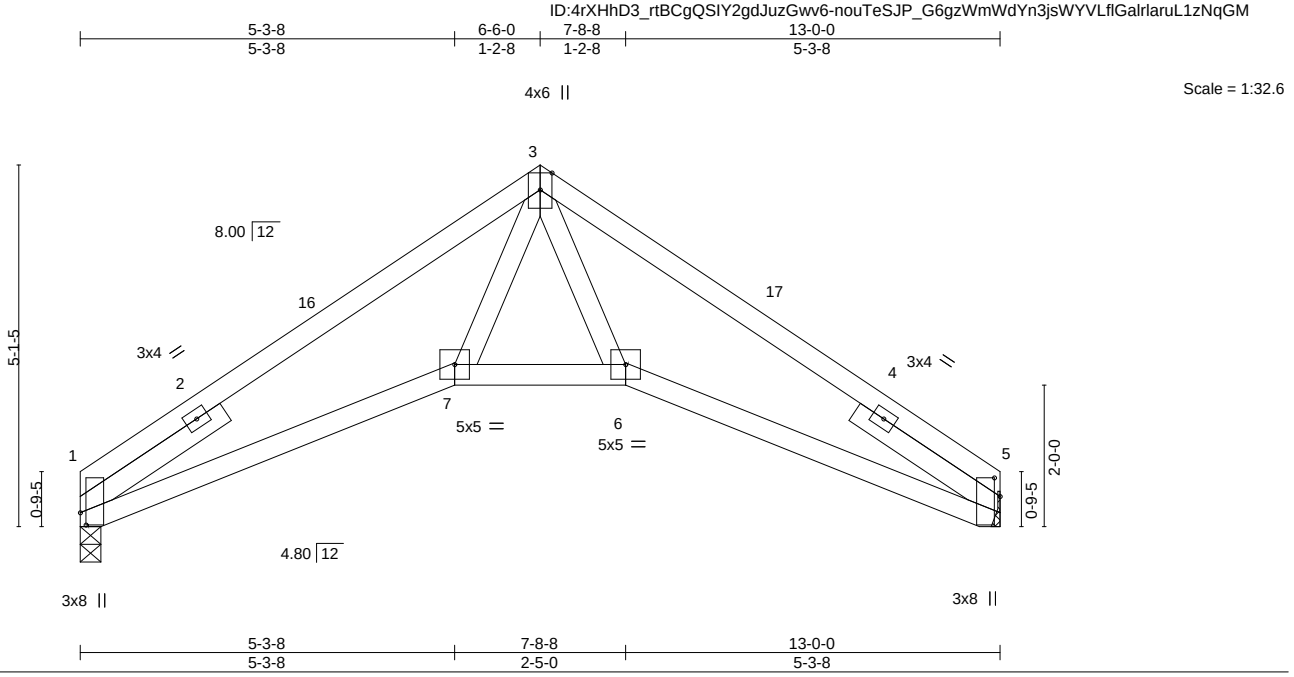


Plate Offsets (X,Y)-- [1:0-2-1,0-0-15], [5:0-3-3,0-0-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.03	7-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.06	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.06	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 46 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 2-6-0, Right 2x4 SPF No.2 -t 2-6-0

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

REACTIONS. (size) 1=0-3-8, 5=Mechanical
Max Horz 1=-102(LC 8)
Max Uplift 1=-65(LC 12), 5=-65(LC 13)
Max Grav 1=585(LC 1), 5=585(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1100/192, 3-5=-1100/195
BOT CHORD 1-7=-106/981, 6-7=-61/717, 5-6=-84/981
WEBS 3-7=-52/484, 3-6=-17/461

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=15ft; 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 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-0-0 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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) 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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne	
2766770	B5	Flat Girder	1	2	Job Reference (optional)	I45809172

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:36 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-F_RrsoJ1lZEWbfKiBFIIG33lllvJ?uM__EaStTzNqGL

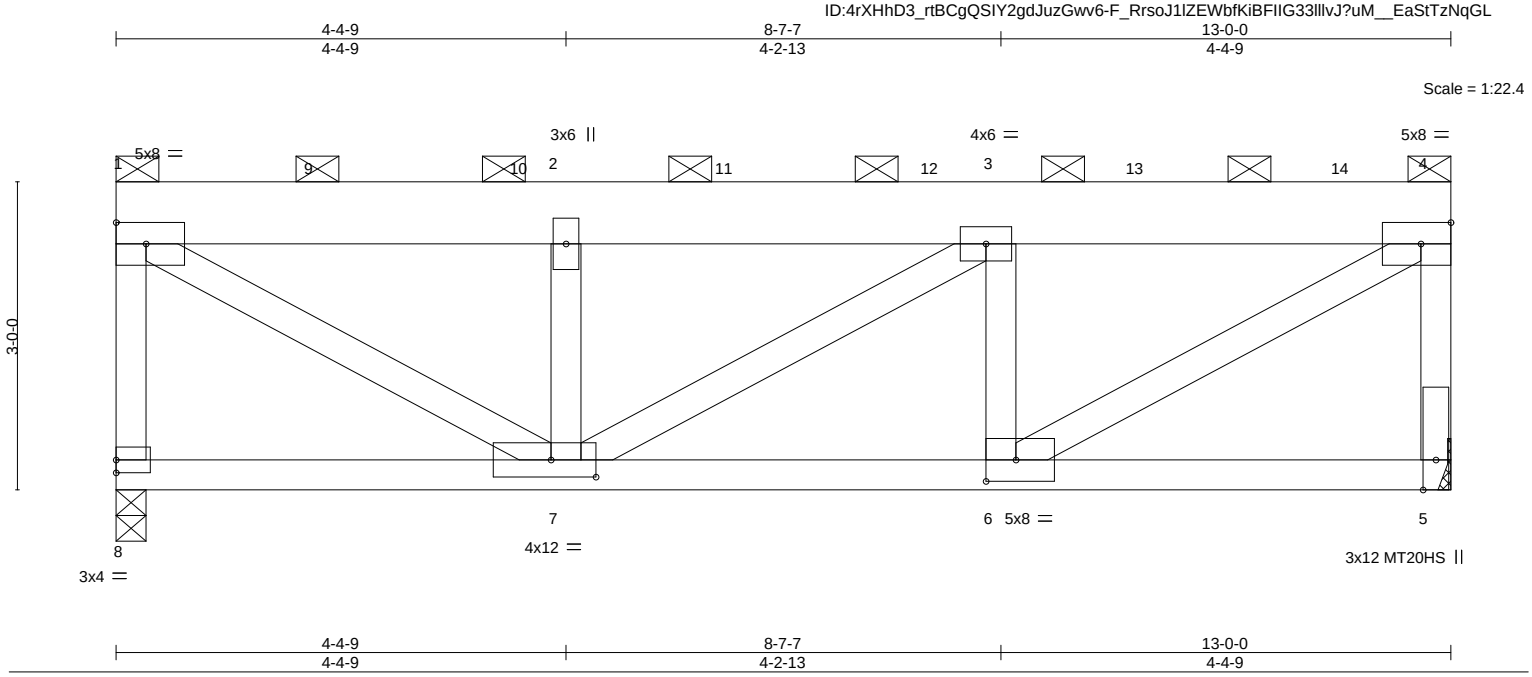


Plate Offsets (X,Y)-- [6:0-3-8,0-2-8], [7:0-5-4,0-2-0]

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	0.25	Vert(LL)	-0.05	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.09	6-7	>999	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 160 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 5=Mechanical
Max Horz 8=-88(LC 4)
Max Uplift 8=-376(LC 4), 5=-400(LC 5)
Max Grav 8=3650(LC 2), 5=4232(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-3590/388, 1-2=-4694/512, 2-3=-4694/512, 3-4=-4740/496, 4-5=-4168/412
BOT CHORD 6-7=-519/4740
WEBS 1-7=-599/5387, 2-7=-2683/352, 3-6=-2742/340, 4-6=-579/5430

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=376, 5=400.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1186 lb down and 88 lb up at 2-0-0, 1186 lb down and 88 lb up at 4-0-0, 1186 lb down and 88 lb up at 8-0-0, 1186 lb down and 88 lb up at 10-0-0, and 1191 lb down and 89 lb up at 12-0-0, and 1198 lb down and 201 lb up at 6-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

April 26,2021

Continued on page 2

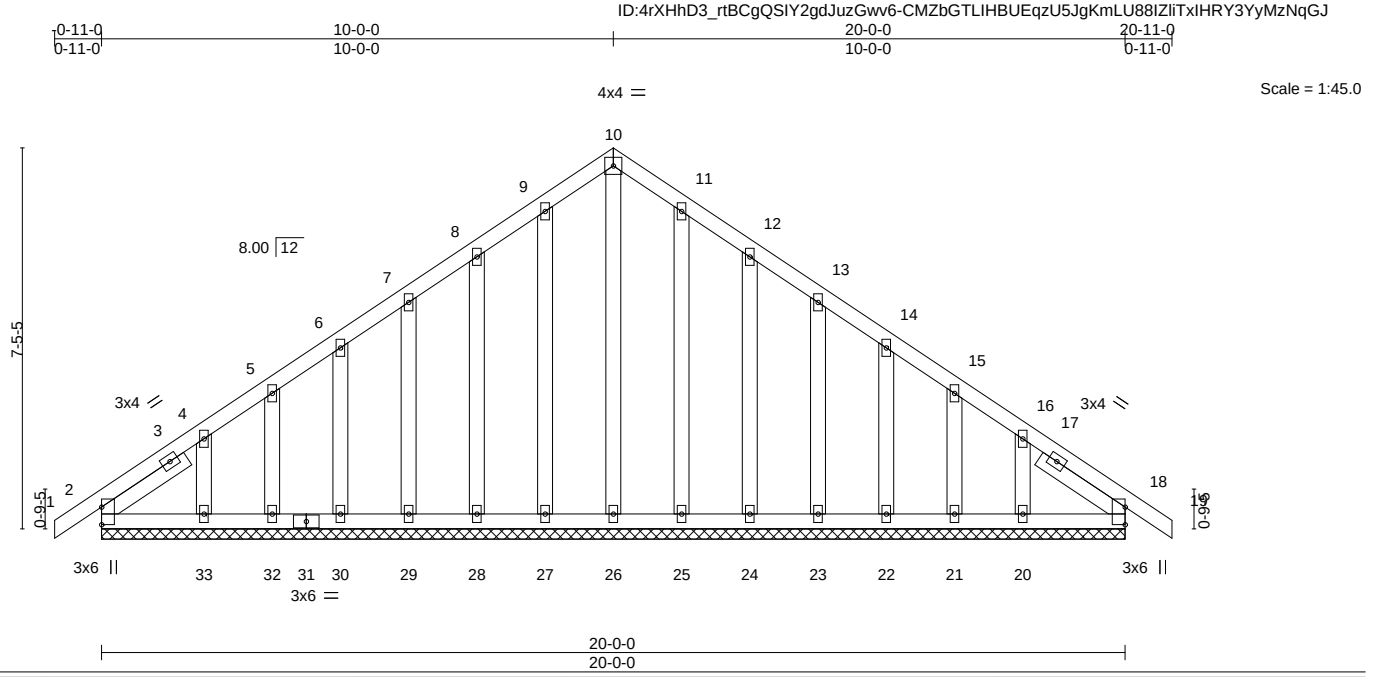
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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: 9=-1066 10=-1066 11=-1116 12=-1066 13=-1066 14=-1071

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	B6	GABLE	1	1	I45809173
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:38 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-CMZbGTLIHBUEqzU5JgKmLU88IZliTxIHRY3YyMzNqGJ



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	0.13	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 117 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 2-0-0, Right 2x4 SPF No.2 -t 2-0-0

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=171(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 18, 21, 20
Max Grav All reactions 250 lb or less at joint(s) 2, 26, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 18, 21, 20

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 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 20-11-0 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) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 18, 21, 20.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	B7	COMMON GIRDER	1	2	I45809174

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:40 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-8lhMh9MYpoky3HeUQ5MEQvEGpMLkxi2avsYf0EzNqGH

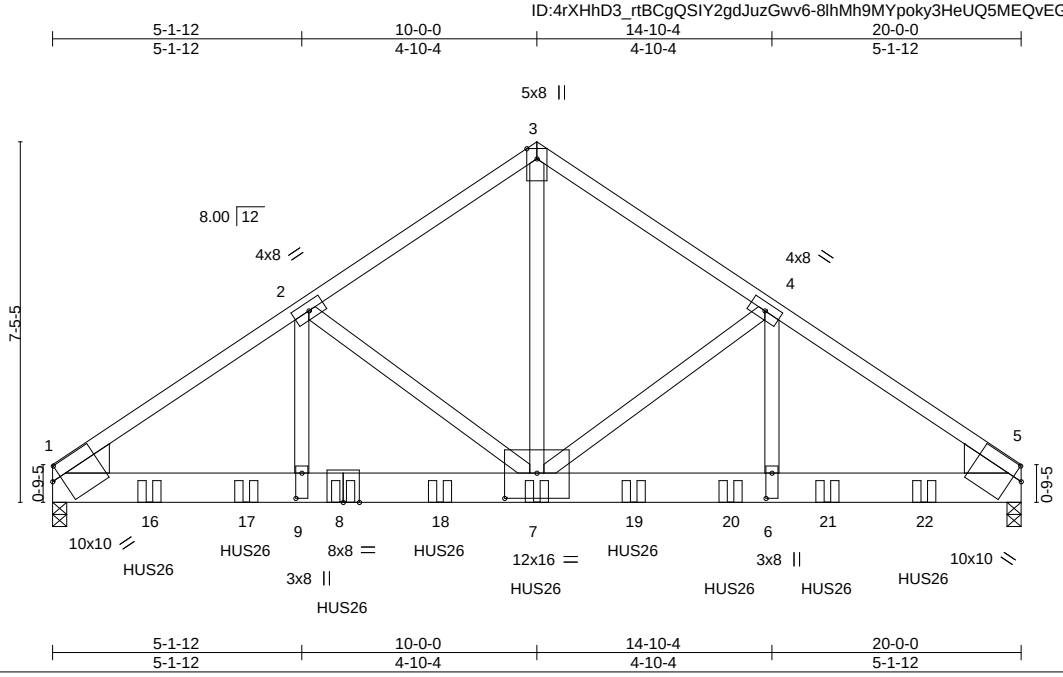


Plate Offsets (X,Y)-- [1:0-2-4,0-3-3], [5:0-2-4,0-3-3], [6:0-6-4,0-1-8], [7:0-8-0,0-6-4], [9:0-6-4,0-1-8]

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	0.88	Vert(LL)	-0.14	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.25	6-7	>955	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 246 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
3-7: 2x4 SPF 1650F 1.5E
WEDGE
Left: 2x8 SP No.2 , Right: 2x8 SP No.2

BRACING-

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

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-156(LC 27)
Max Uplift 1=-1052(LC 8), 5=-1052(LC 9)
Max Grav 1=8078(LC 1), 5=8081(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-11045/1449, 2-3=-8018/1113, 3-4=-8018/1113, 4-5=-11049/1450
BOT CHORD 1-9=-1232/9092, 7-9=-1232/9092, 6-7=-1134/9096, 5-6=-1134/9096
WEBS 3-7=-1127/8445, 4-7=-3153/534, 4-6=-408/3296, 2-7=-3149/533, 2-9=-406/3292

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; 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
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1052, 5=1052.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 18-0-0 to connect truss(es) to front face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

April 26,2021

Continued on page 2

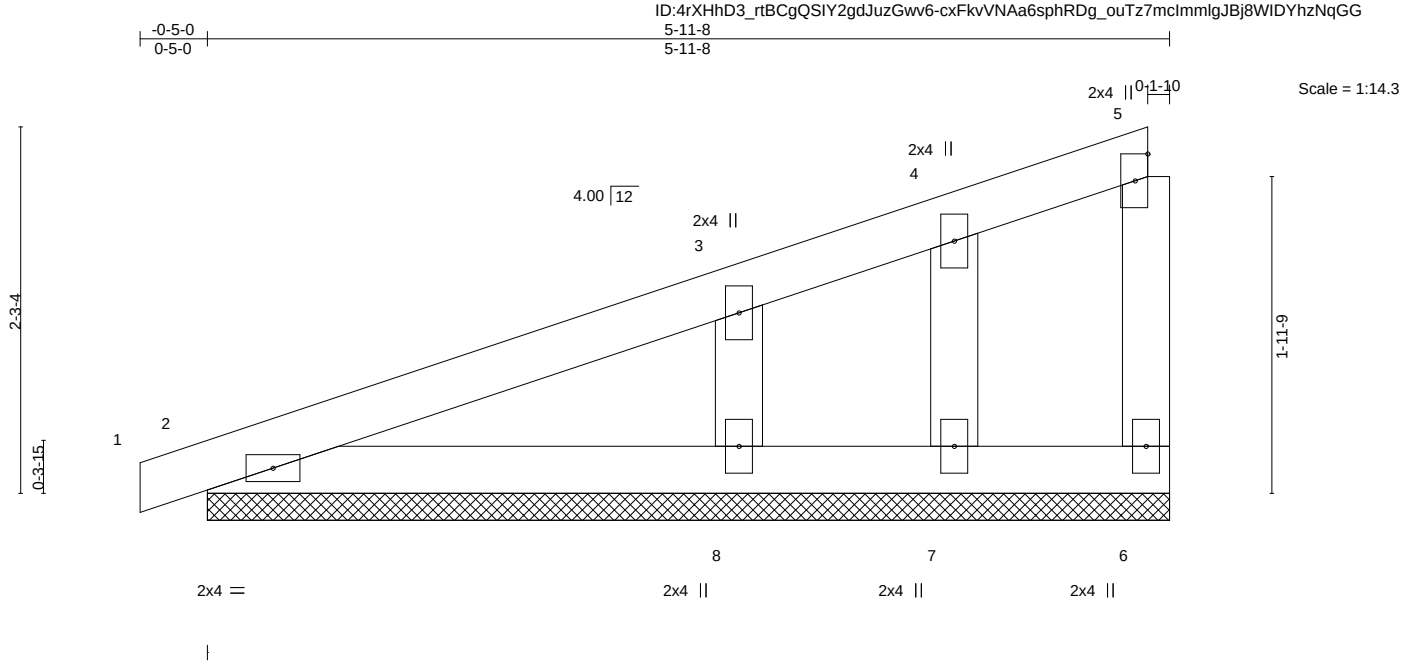
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-5=-70, 10-13=-20
   Concentrated Loads (lb)
   Vert: 8=-1594(F) 7=-1594(F) 16=-1599(F) 17=-1594(F) 18=-1594(F) 19=-1594(F) 20=-1594(F) 21=-1599(F) 22=-1599(F)

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	C1	GABLE	1	1	I45809175
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:41 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-cxFkvVNAa6sphRDg_ouTz7mcImmlgJBj8WIDYhzNqGG



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)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	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 5-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 5-11-8.
(lb) - Max Horz 2=80(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7 except 8=305(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-8=-235/299

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-5-0 to 2-7-0, Exterior(2N) 2-7-0 to 5-9-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 1-4-0 oc.
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) 6, 2, 7, 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	C2	MONO TRUSS	6	1	I45809176
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:42 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-48p66rOoLP_gJaosYWPiVKJi3A1LPmFsMA1m57zNqGF

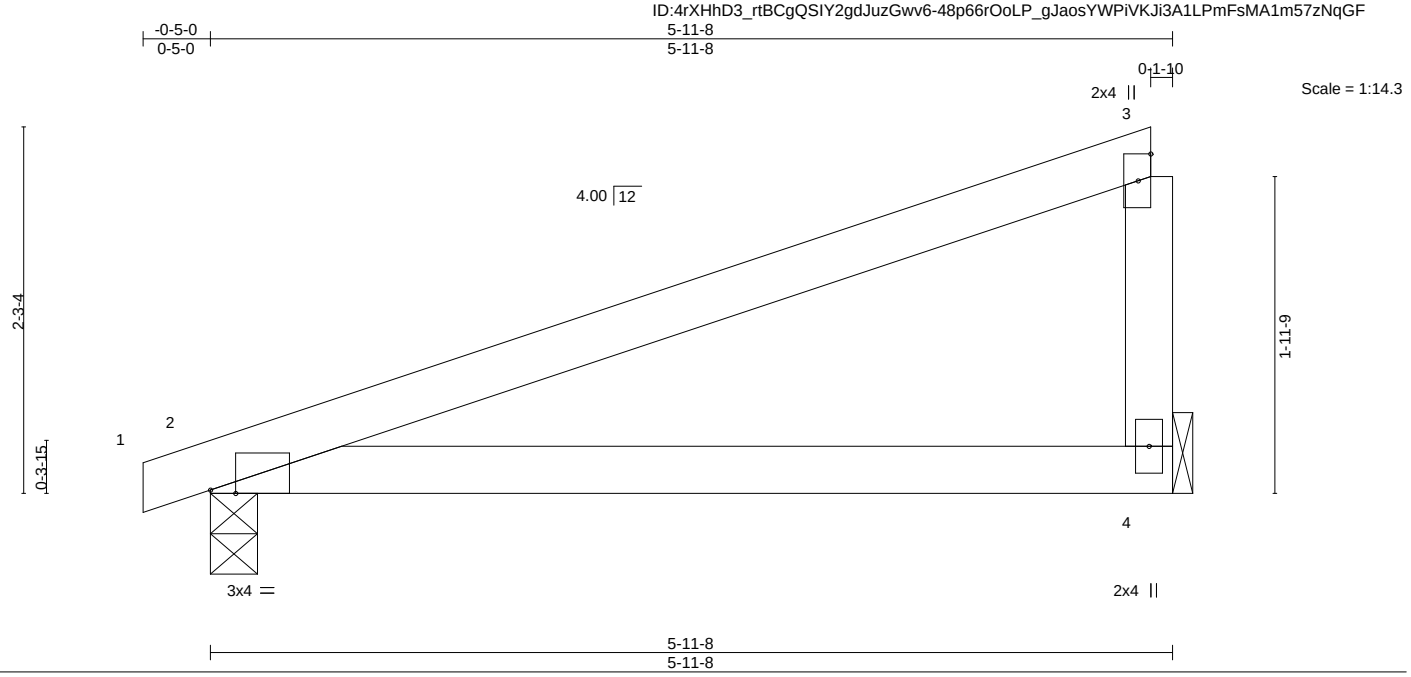


Plate Offsets (X,Y)-- [2:0-1-14,Edge]

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	0.45	Vert(LL)	-0.06	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.13	4-7	>548	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 16 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 4=Mechanical
Max Horz 2=81(LC 11)
Max Uplift 2=-57(LC 8), 4=-53(LC 12)
Max Grav 2=292(LC 1), 4=261(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-5-0 to 2-7-0, Interior(1) 2-7-0 to 5-9-12 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	C3	MONO TRUSS	4	1	I45809177
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:43 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-YKMUKBPQ6j6XwkN25Dwx2YsnmaJK8DV0bqnJdZzNqGE

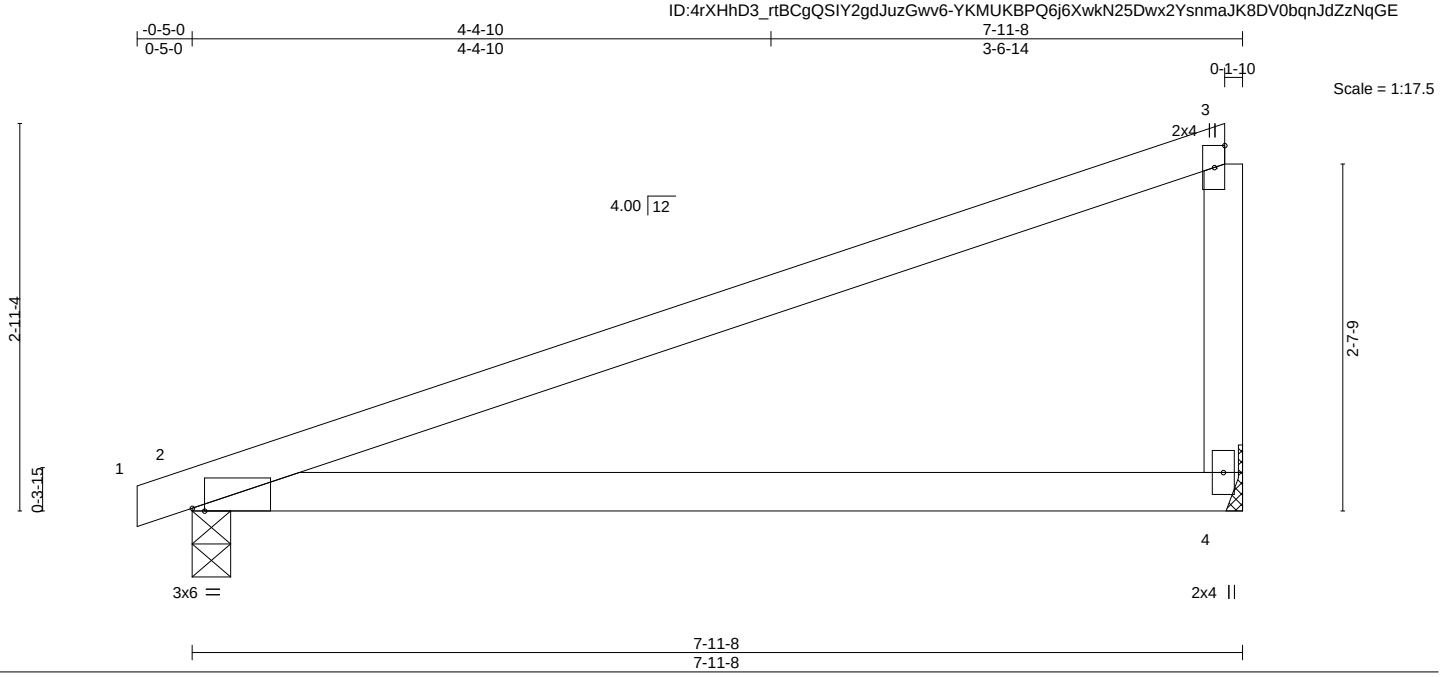


Plate Offsets (X,Y)-- [2:0-1-2,Edge]

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	0.84	Vert(LL)	-0.19	4-7	>498	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.39	4-7	>241	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 22 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 4=Mechanical
Max Horz 2=108(LC 11)
Max Uplift 2=-72(LC 8), 4=-72(LC 12)
Max Grav 2=382(LC 1), 4=351(LC 1)

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

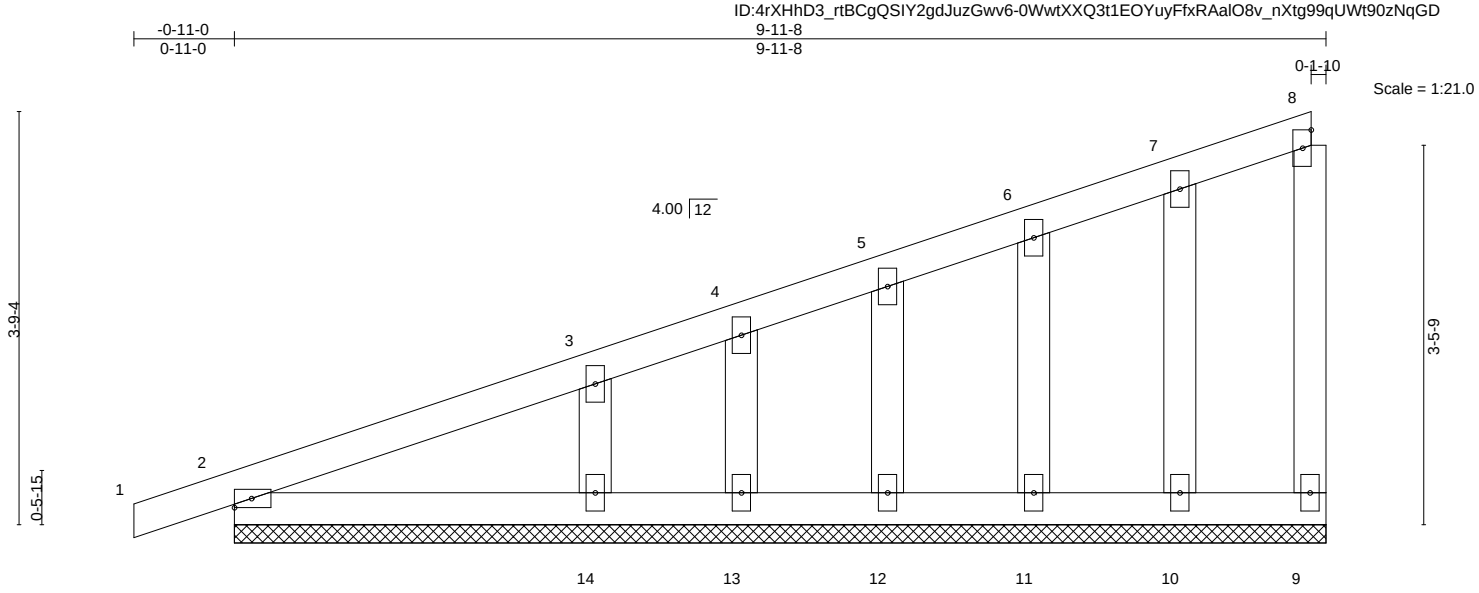
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-5-0 to 2-7-0, Interior(1) 2-7-0 to 7-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	C4	GABLE	1	1	I45809178
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:44 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-0WwtXXQ3t1EOYuyFfxRAalO8v_nXtg99qUWt90zNqGD



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	0.11	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	1	n/r	120		
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: 39 lb	FT = 20%

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

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

REACTIONS. All bearings 9-11-8.
(lb) - Max Horz 2=140(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 9, 10, 11, 12, 13, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 9, 10, 11, 12, 13 except 14=287(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-262/129

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 9-9-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 2, 9, 10, 11, 12, 13, 14.
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.

April 26,2021

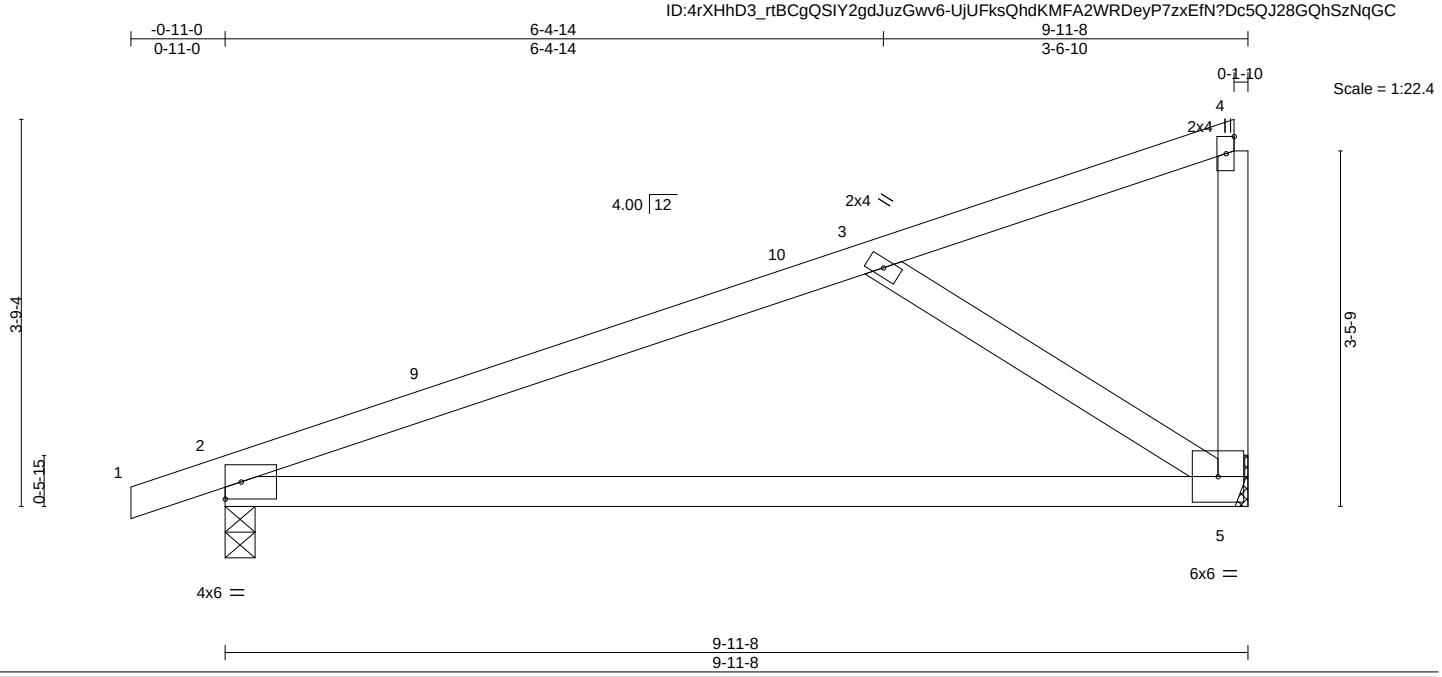
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	C5	MONO TRUSS	9	1	I45809179

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:45 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-UjUFksQhdKMFA2WRDeyP7zxEfN?Dc5QJ28GQhSzNqGC



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.22	5-8	>546	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.45	5-8	>262	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 33 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=142(LC 11)
Max Uplift 2=-104(LC 8), 5=-89(LC 8)
Max Grav 2=509(LC 1), 5=439(LC 1)

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

TOP CHORD	2-3=-552/164
BOT CHORD	2-5=-283/486
WEBS	3-5=-531/298

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 9-9-12 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=104.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	C6	GABLE	1	1	I45809180
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:46 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-zv2dyCRJOeV6nC5dnMTegAUSEnOSLVESHo?_EuzNqGB

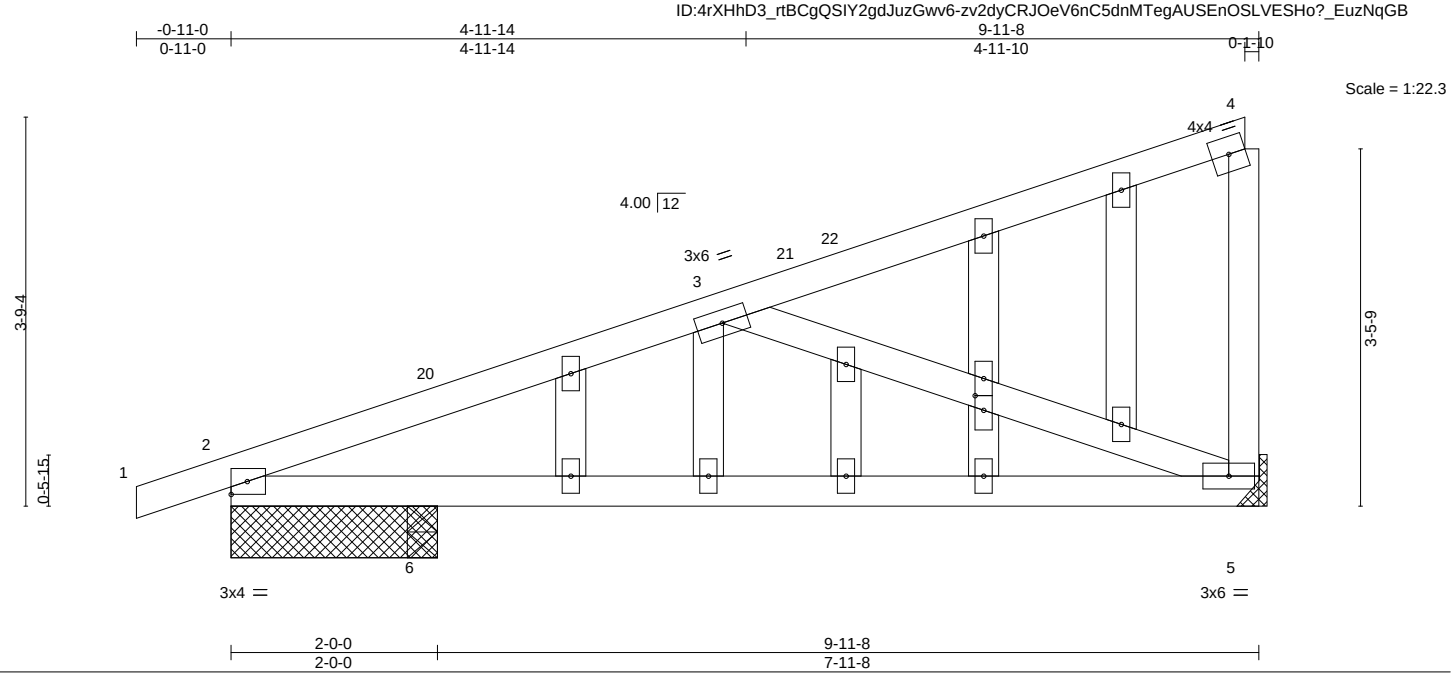


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0], [11:0-1-11,0-1-0]

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	0.25	Vert(LL)	-0.09	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.18	5-6	>530	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 43 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, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=2-0-0, 5=Mechanical, 6=0-3-8
Max Horz 2=142(LC 11)
Max Uplift 2=-152(LC 8), 5=-100(LC 8)
Max Grav 2=356(LC 1), 5=403(LC 1), 6=354(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-620/232
BOT CHORD 2-6=-384/541, 5-6=-384/541
WEBS 3-5=-532/358

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 9-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable studs spaced at 1-4-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=152.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	CJ1	Diagonal Hip Girder	2	1	I45809181
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:47 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-R5c?9YSx9ydzPMgqK3_tCO0bZBko40LcWSlXmKzNqGA

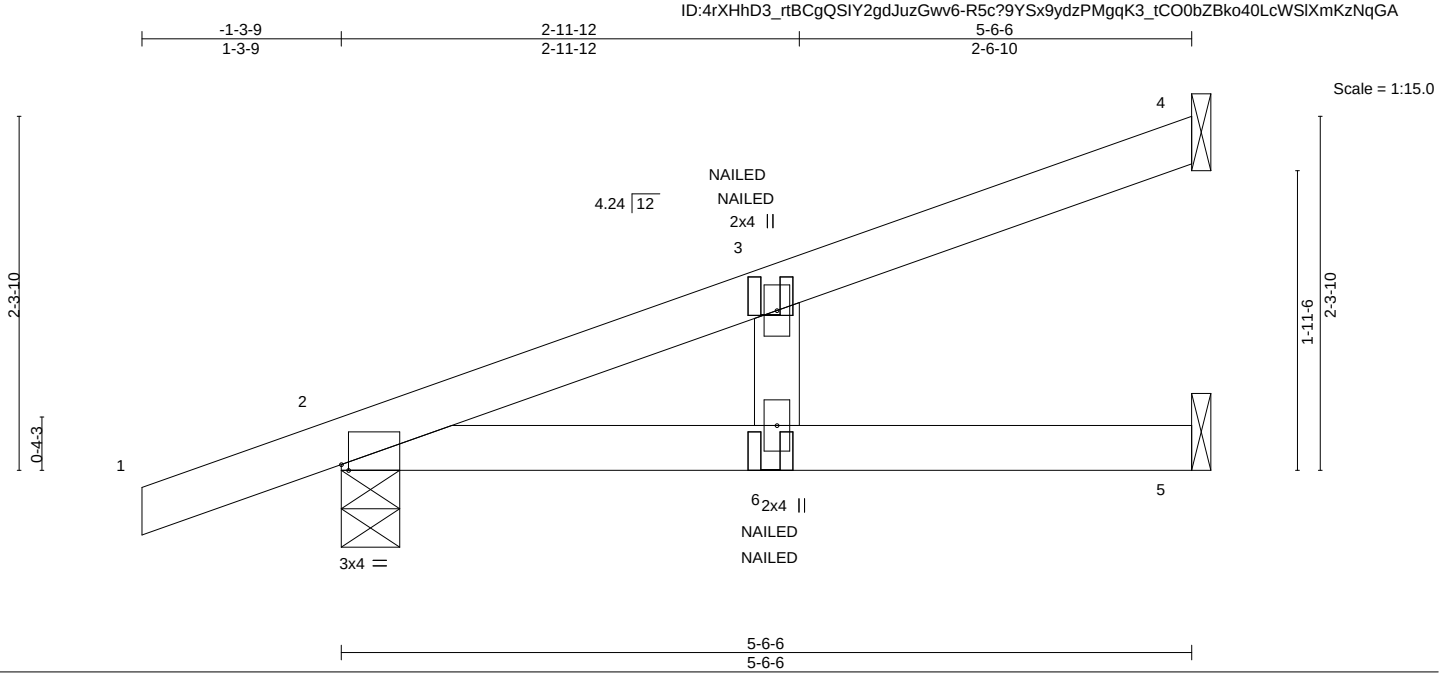


Plate Offsets (X,Y)-- [2:0-0-9,Edge]

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	0.34	Vert(LL)	-0.06	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.11	6	>571	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 16 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical
Max Horz 2=93(LC 4)
Max Uplift 4=-47(LC 8), 2=-85(LC 4), 5=-8(LC 8)
Max Grav 4=145(LC 1), 2=353(LC 1), 5=96(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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

April 26,2021

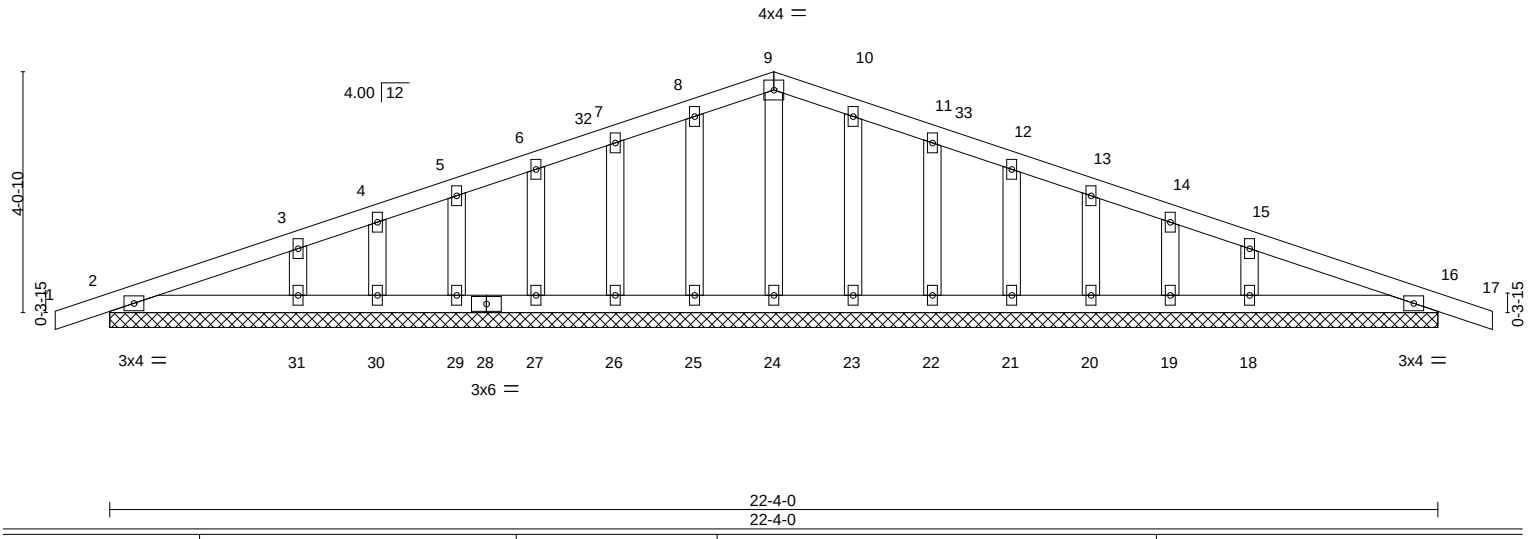
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	D1	GABLE	1	1	I45809182
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:49 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-NUkmaETBhZtgefqCSU1LHp5?w?VnYwbuzmEeqDzNqG8

0-11-0 11-2-0 22-4-0 23-3-0
0-11-0 11-2-0 11-2-0 0-11-0

Scale = 1:38.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	17	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	17	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 85 lb	FT = 20%

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

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

REACTIONS. All bearings 22-4-0.
(lb) - Max Horz 2=-64(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 29, 30, 31, 23, 22, 21, 20, 19, 18, 16
Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 29, 30, 23, 22, 21, 20, 19, 16 except 31=273(LC 25), 18=273(LC 26)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 11-2-0, Corner(3R) 11-2-0 to 14-2-0, Exterior(2N) 14-2-0 to 23-3-0 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) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 29, 30, 31, 23, 22, 21, 20, 19, 18, 16.
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.

April 26,2021

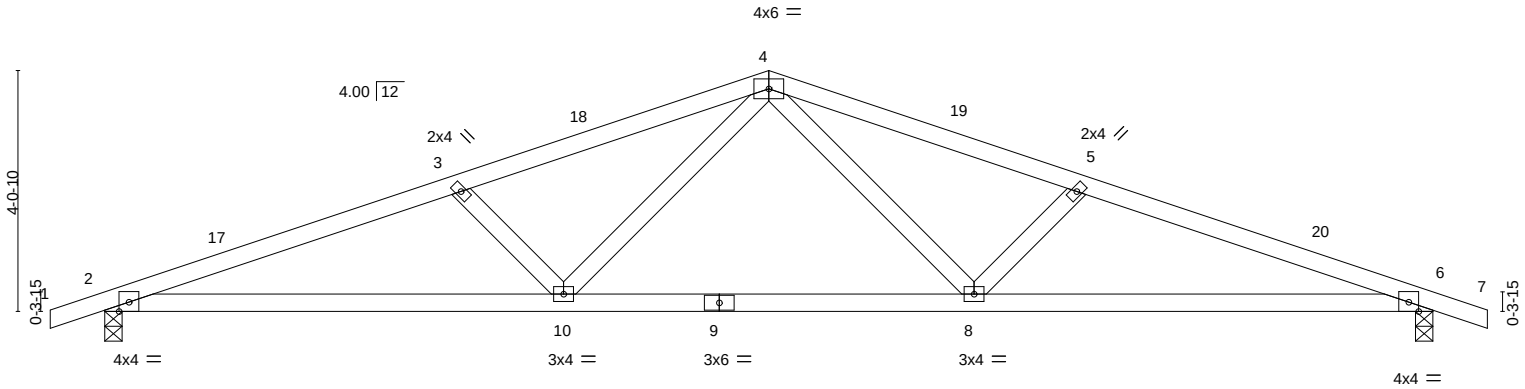
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	D2	Common	5	1	I45809183
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:50 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-rgI8oaUpSt?XGpPP0BYaq0e5wOgwHLg2CQzBNfzNqG7

0-11-0 5-11-14 11-2-0 16-4-2 22-4-0 23-3-0
0-11-0 5-11-14 5-2-2 5-2-2 5-11-14 0-11-0

Scale = 1:38.7



7-8-9 14-7-7 22-4-0
7-8-9 6-10-13 7-8-9

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.13	10-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.26	10-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.07	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 72 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-64(LC 17)
Max Uplift 2=-180(LC 8), 6=-180(LC 9)
Max Grav 2=1069(LC 1), 6=1069(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2401/463, 3-4=-2118/415, 4-5=-2118/415, 5-6=-2401/463
BOT CHORD 2-10=-383/2248, 8-10=-214/1508, 6-8=-385/2248
WEBS 4-8=-97/672, 5-8=-456/172, 4-10=-97/672, 3-10=-456/172

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 11-2-0, Exterior(2R) 11-2-0 to 14-2-0, Interior(1) 14-2-0 to 23-3-0 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) 2=180, 6=180.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	E1	Hip Girder	1	1	I45809184

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:52 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-n3PuDGW4_UFFW7Zn7ca2vRjU1CQNlG1LgjSIRYzNqG5

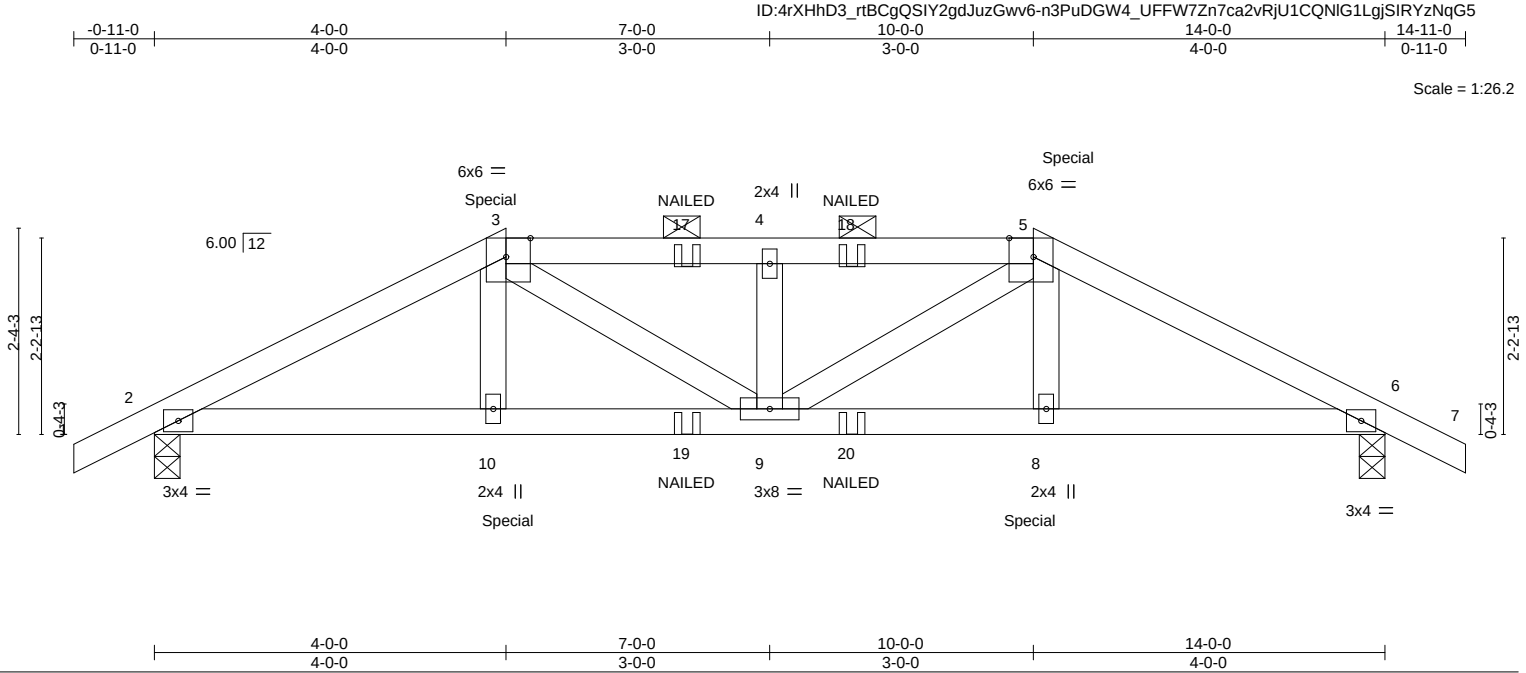


Plate Offsets (X,Y)-- [3:0-3-5,Edge], [5:0-3-5,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.05	9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.09	9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 49 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 4-4-1 oc purlins, except 2-0-0 oc purlins (4-3-6 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-37(LC 13)
Max Uplift 2=-185(LC 8), 6=-185(LC 9)
Max Grav 2=967(LC 1), 6=967(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1690/319, 3-4=-1796/351, 4-5=-1796/351, 5-6=-1690/319
BOT CHORD 2-10=-261/1473, 9-10=-262/1459, 8-9=-238/1459, 6-8=-236/1473
WEBS 3-9=-101/446, 4-9=-344/137, 5-9=-101/446

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=185, 6=185.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 150 lb down and 121 lb up at 4-0-0, and 150 lb down and 121 lb up at 10-0-0 on top chord, and 102 lb down and 33 lb up at 4-0-0, and 102 lb down and 33 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 5-7=-70, 11-14=-20
Concentrated Loads (lb)
Vert: 10=-102(F) 3=-91(F) 5=-91(F) 8=-102(F) 17=-46(F) 18=-46(F) 19=-34(F) 20=-34(F)

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	E2	Hip	1	1	I45809185
					Job Reference (optional)

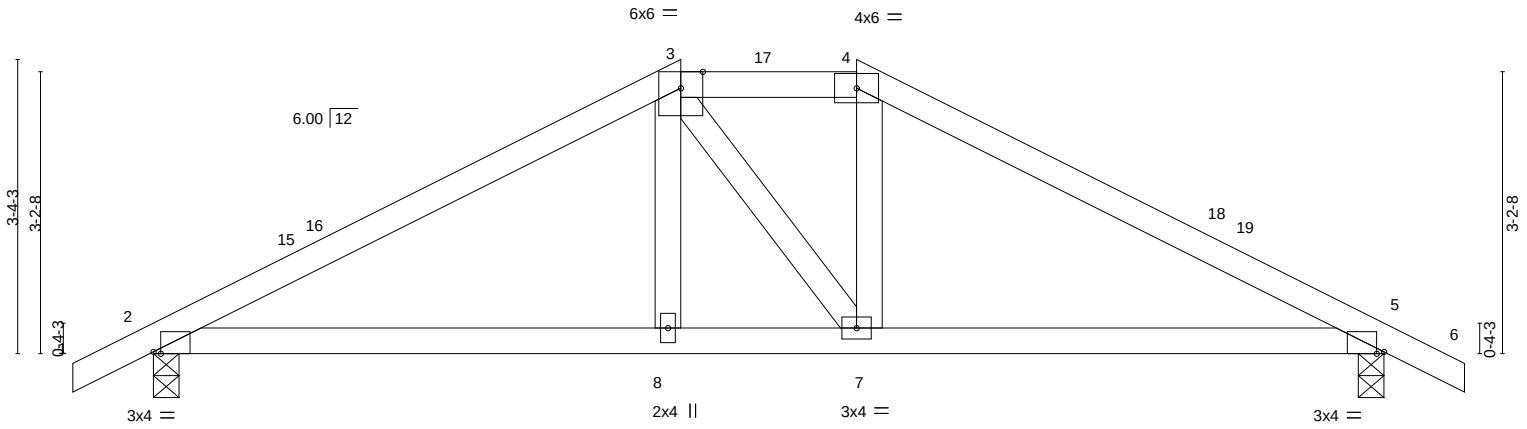
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:53 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-FFzGQcXiloN67H8zhK5HSfGdPcn7UkDUuNCrz_zNqG4

-0-11-0 6-0-0 8-0-0 14-0-0 14-11-0

0-11-0 6-0-0 2-0-0 6-0-0 0-11-0

Scale = 1:26.2



6-0-0 8-0-0 14-0-0

6-0-0 2-0-0 6-0-0

Plate Offsets (X,Y)-- [2:0-1-0,Edge], [5:0-1-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.05	8-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.09	8-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 46 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=-54(LC 17)
Max Uplift 2=-99(LC 12), 5=-99(LC 13)
Max Grav 2=694(LC 1), 5=694(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-954/223, 3-4=-783/249, 4-5=-955/222
BOT CHORD 2-8=-110/787, 7-8=-111/782, 5-7=-113/788

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2E) 6-0-0 to 8-0-0, Exterior(2R) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 14-11-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	E3	Common	3	1	I45809186
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:54 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-kRXedxXKW5VzlQjAF1dW_splu06BDA5e71xPWQzNqG3

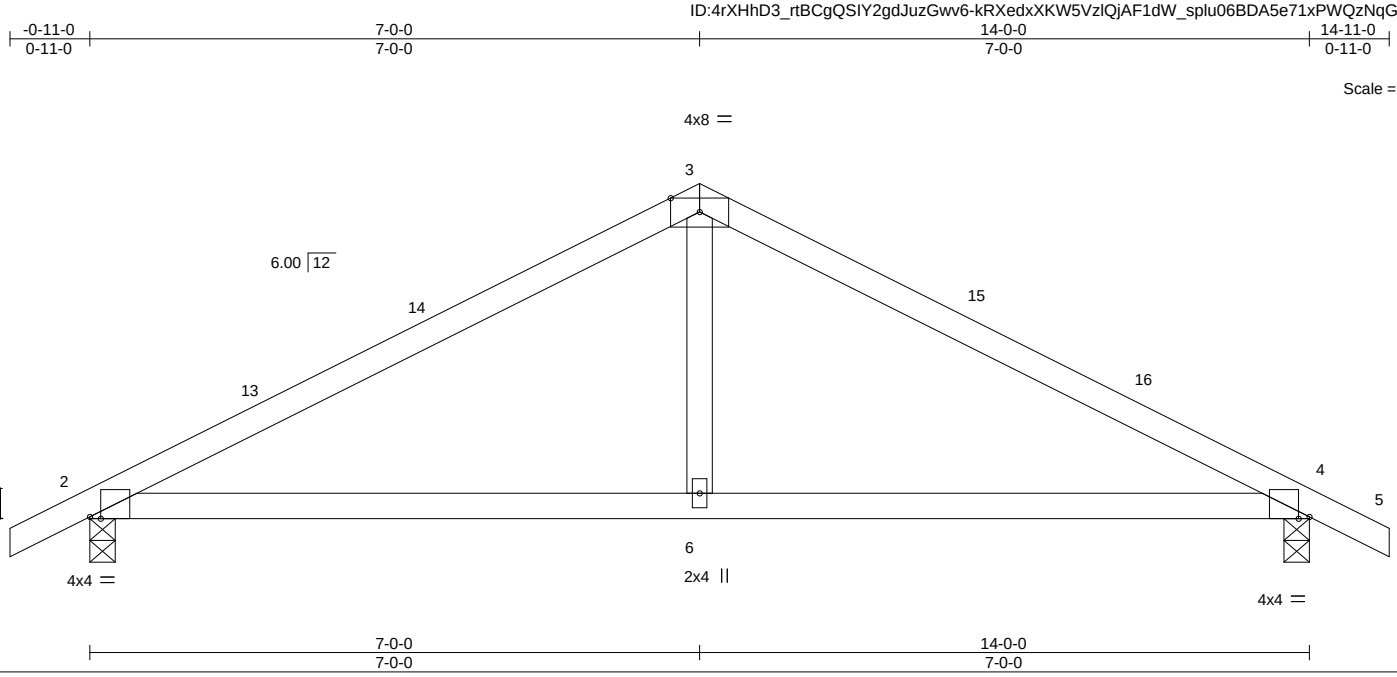


Plate Offsets (X,Y)-- [2:0-1-8,Edge], [4:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.09	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.15	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 40 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=63(LC 12)
Max Uplift 2=-97(LC 12), 4=-97(LC 13)
Max Grav 2=694(LC 1), 4=694(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-907/254, 3-4=-907/254
BOT CHORD 2-6=-105/732, 4-6=-105/732
WEBS 3-6=0/321

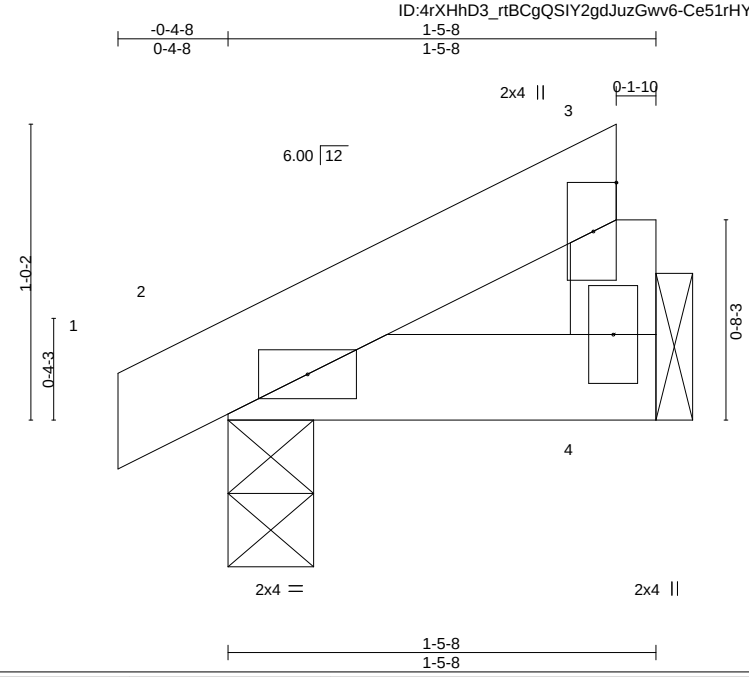
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-11-0 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) 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) 2, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	F1	Monopitch	4	1	I45809187
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:55 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-Ce51rHYyHPdqNaHMol8lX4L1cPYqyeTnMhhy2tzNqG2



Scale = 1:7.9

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	0.01	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 4 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 1-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=29(LC 11)
Max Uplift 4=-13(LC 12), 2=-16(LC 12)
Max Grav 4=55(LC 1), 2=89(LC 1)

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

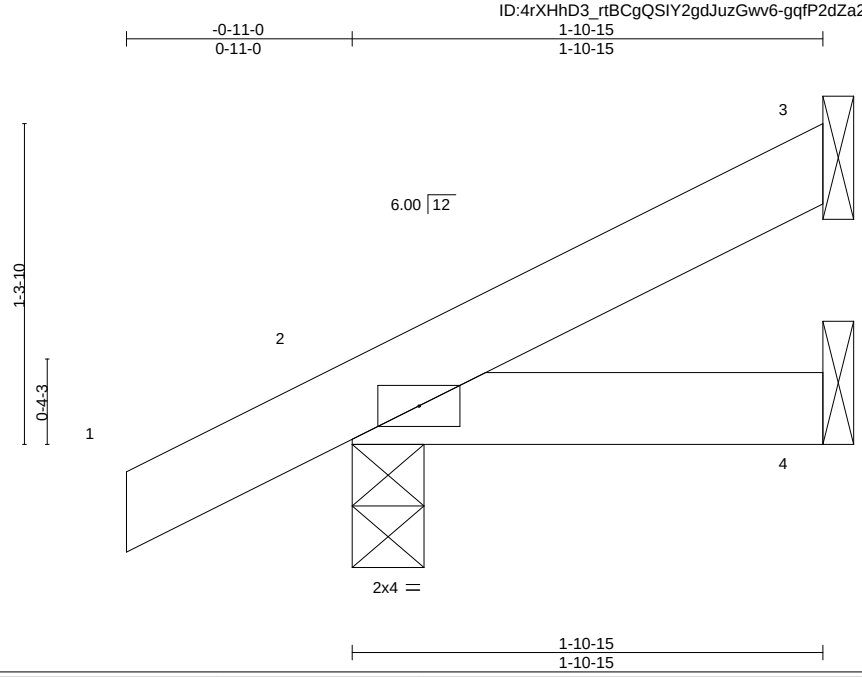
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions 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) 4, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	J1	Jack-Open	4	1	I45809188
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:56 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-gqfP2dZa2jlh_ksYMSf_4HuChpuzh5jwaLQVaJzNqG1



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 6 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=49(LC 12)
Max Uplift 3=-21(LC 12), 2=-30(LC 12)
Max Grav 3=48(LC 1), 2=165(LC 1), 4=32(LC 3)

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

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

April 26,2021

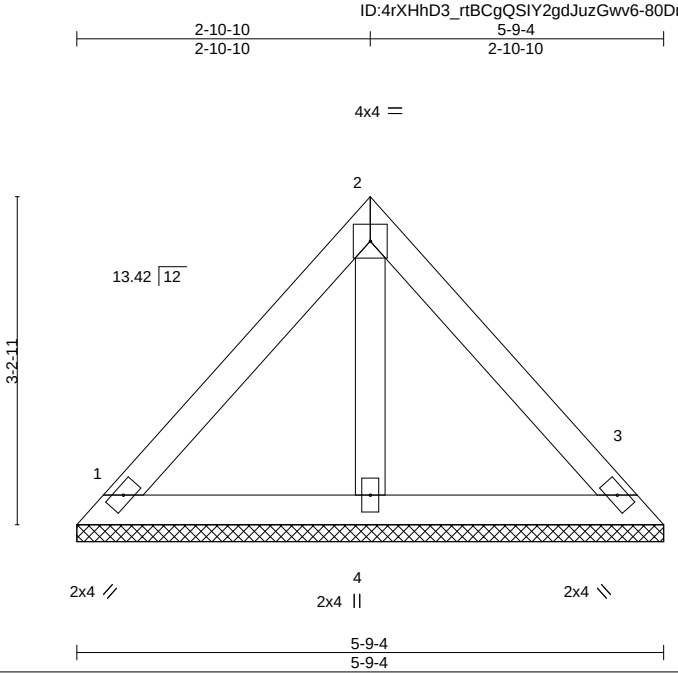
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	LG1	GABLE	1	1	I45809189

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:57 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-80DnGzaCp0tYcuRlw9ADcVRMTDEiQYg4p?A37lzNqG0



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	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 5-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-9-4, 3=5-9-4, 4=5-9-4
Max Horz 1=69(LC 11)
Max Uplift 1=-34(LC 13), 3=-29(LC 13)
Max Grav 1=144(LC 1), 3=144(LC 1), 4=173(LC 1)

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

NOTES-

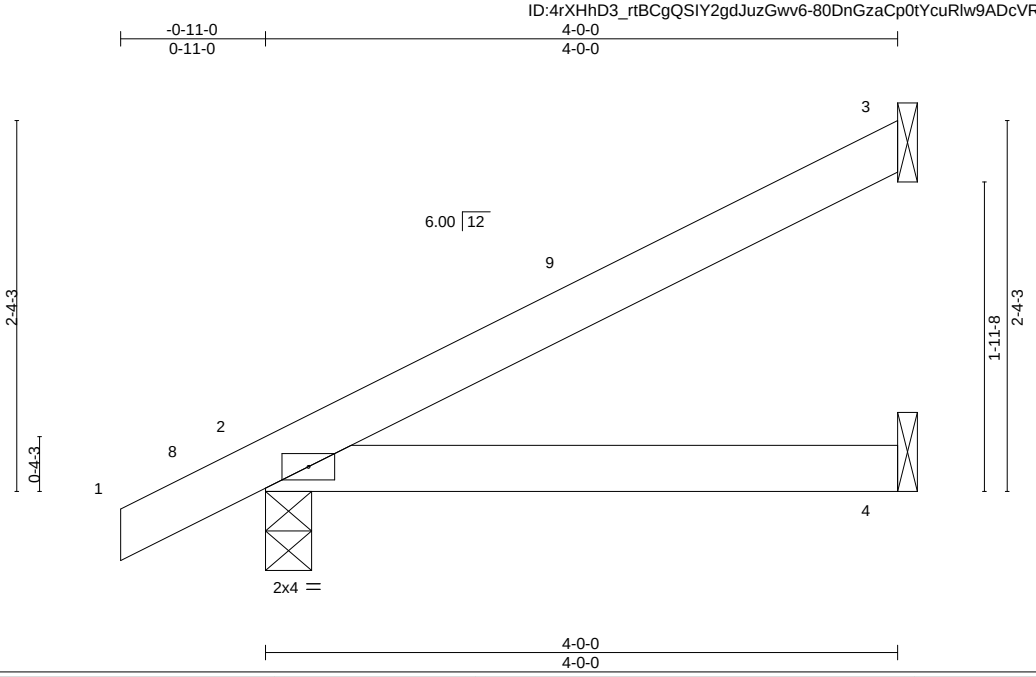
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left 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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	M1	Jack-Open	4	1	I45809190
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:57 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-80DnGzaCp0tYcuRlw9ADcVRKEDC9QYz4p?A37lzNqG0



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)	0.02	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 11 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 4-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=87(LC 12)
Max Uplift 3=-51(LC 12), 2=-34(LC 12)
Max Grav 3=116(LC 1), 2=249(LC 1), 4=72(LC 3)

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

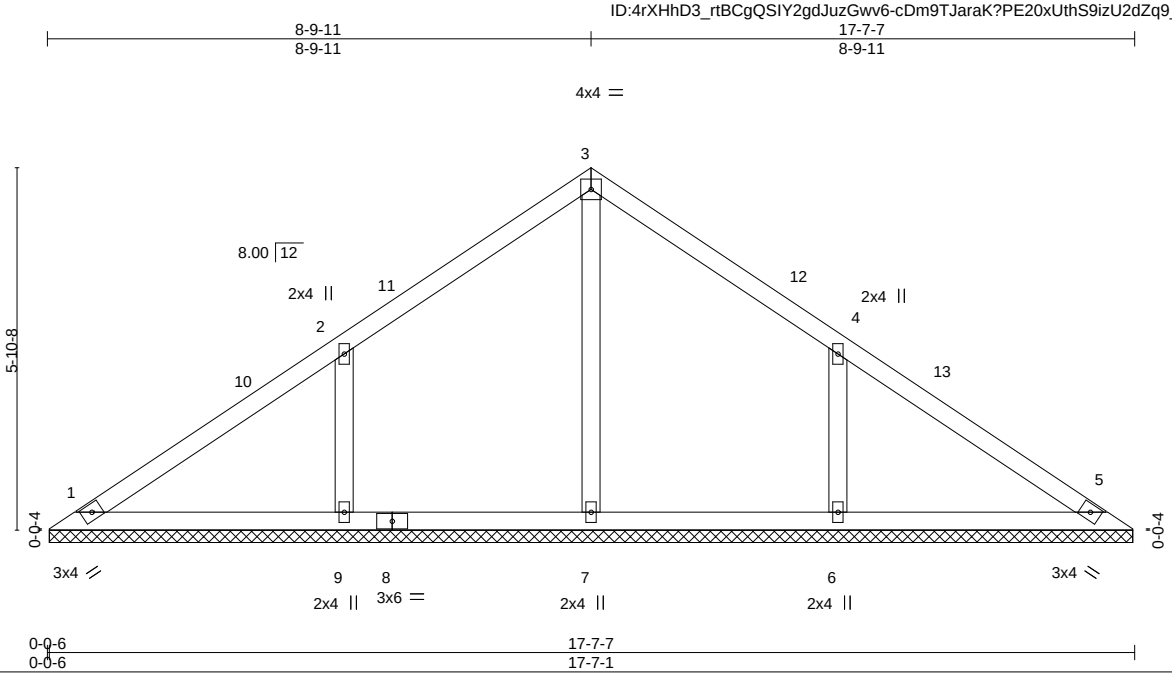
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C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

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V1	Valley	1	1	I45809191
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:58 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-cDm9TJaraK?PE20xUthS9izU2dZq9_dD2fvcfCzNqG?



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 55 lb	FT = 20%

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

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

REACTIONS. All bearings 17-6-11.
(lb) - Max Horz 1=-130(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-166(LC 12), 6=-166(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=256(LC 1), 9=459(LC 19), 6=459(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-352/198, 4-6=-352/198

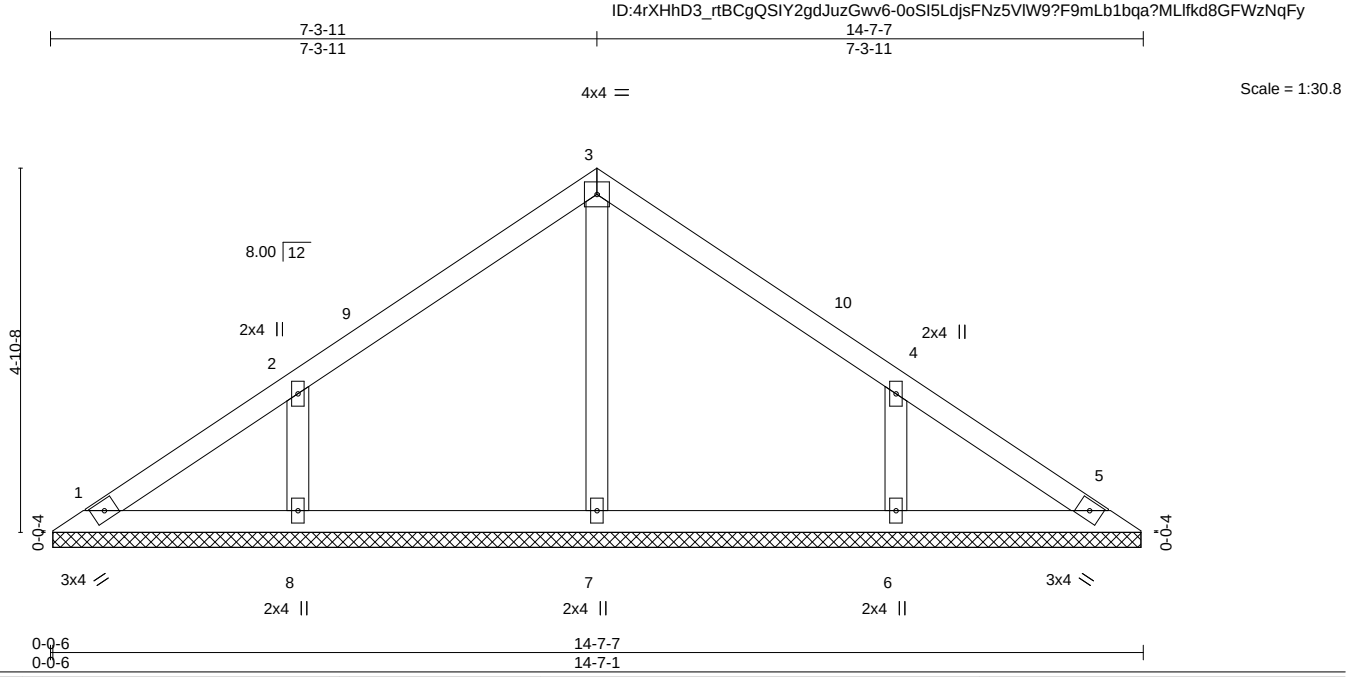
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 8-9-11, Exterior(2R) 8-9-11 to 11-9-11, Interior(1) 11-9-11 to 17-1-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 except (jt=lb) 9=166, 6=166.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V2	Valley	1	1	I45809192
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:01 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-0oSI5LdjsFNz5VlW9?F9mLb1bqa?MLlfkd8GFWzNqFy



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	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 44 lb	FT = 20%

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

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

REACTIONS. All bearings 14-6-11.
(lb) - Max Horz 1=107(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-137(LC 12), 6=-137(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=292(LC 1), 8=370(LC 19), 6=370(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-292/166, 4-6=-292/166

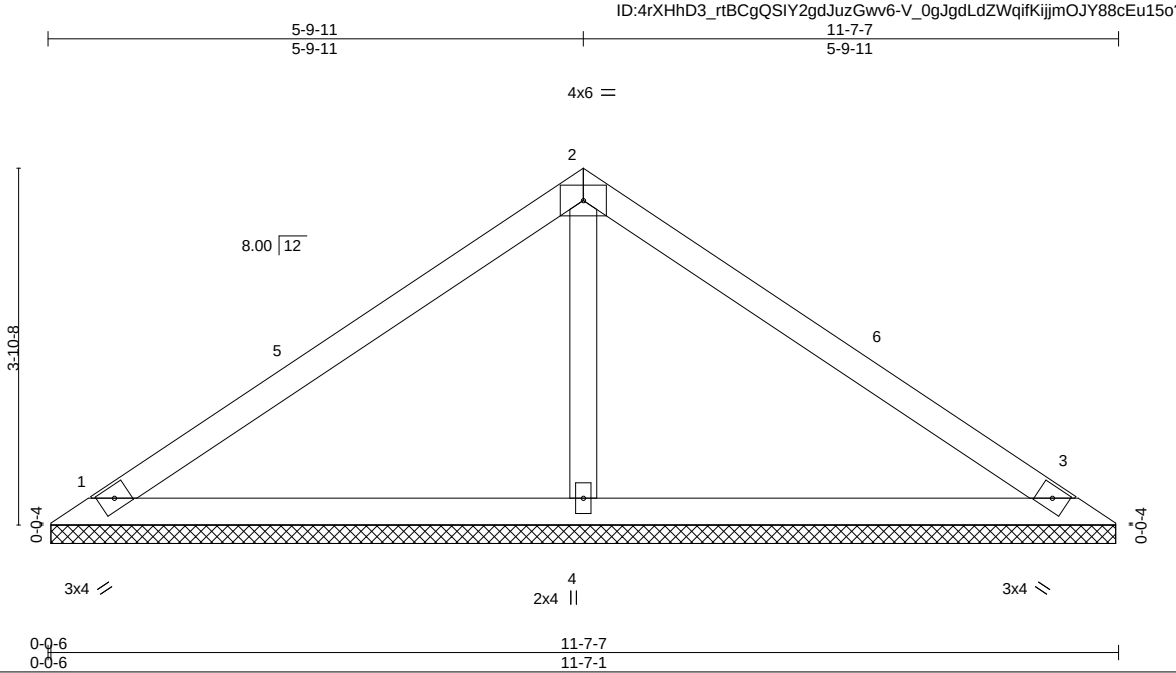
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-3-11, Interior(1) 3-3-11 to 7-3-11, Exterior(2R) 7-3-11 to 10-3-11, Interior(1) 10-3-11 to 14-1-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 except (jt=lb) 8=137, 6=137.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V3	Valley	1	1	I45809193
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:02 2021 Page 1
ID:4rXHhD3_rtBCgQSlY2gdJuzGwv6-V_0gJgdLdZWqifKijjmOJY88cEu15o?pzHtqnzzNqFx



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	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	0.08	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 32 lb	FT = 20%

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

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

REACTIONS. (size) 1=11-6-11, 3=11-6-11, 4=11-6-11
Max Horz 1=-83(LC 8)
Max Uplift 1=-41(LC 12), 3=-52(LC 13), 4=-30(LC 12)
Max Grav 1=236(LC 1), 3=236(LC 1), 4=488(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-325/103

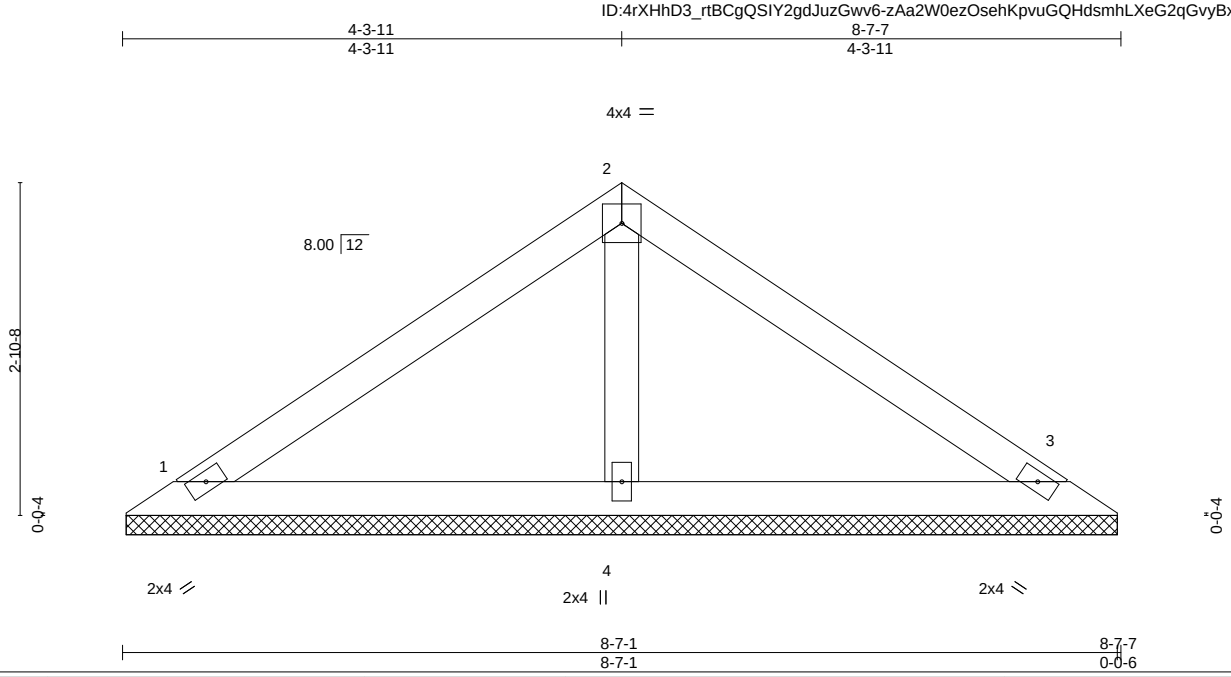
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-9-11, Exterior(2R) 5-9-11 to 8-9-11 , Interior(1) 8-9-11 to 11-1-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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, 4.
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.

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V4	Valley	1	1	I45809194
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:03 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-zAa2W0ezOsehKpvuGQHdsmhLXeG2qGvyBxdNJPzNqFw



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 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=8-6-11, 3=8-6-11, 4=8-6-11
Max Horz 1=60(LC 9)
Max Uplift 1=-37(LC 12), 3=-45(LC 13), 4=-6(LC 12)
Max Grav 1=186(LC 1), 3=186(LC 1), 4=316(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-3-11, Exterior(2R) 4-3-11 to 7-3-11 , Interior(1) 7-3-11 to 8-1-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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, 4.
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.

April 26,2021

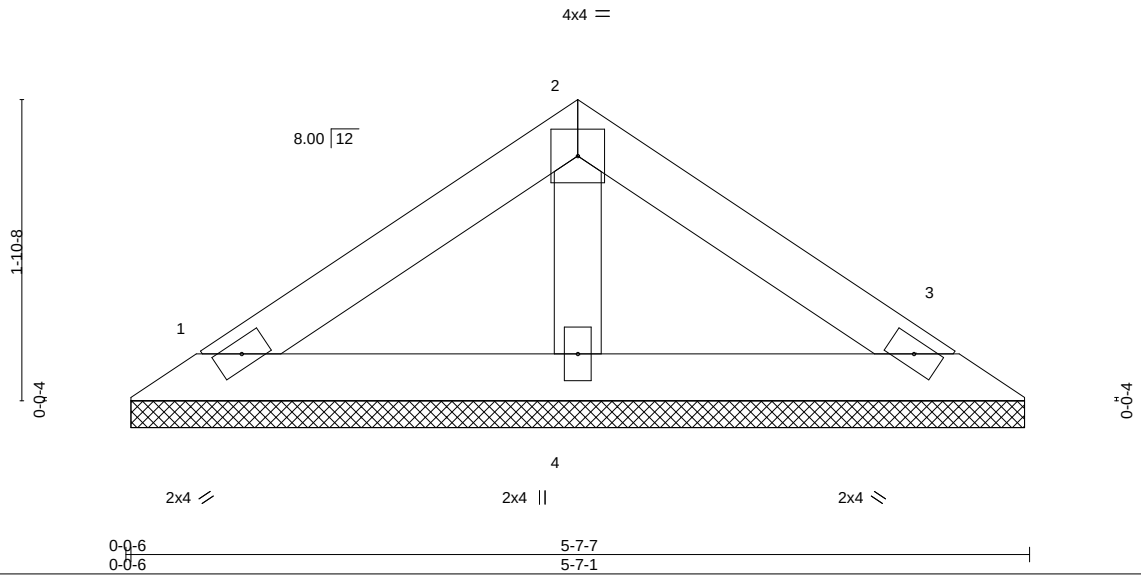
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V5	Valley	1	1	I45809195
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:04 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-RN8QkMfc9AmYyzT5q8osOzDZ62dVZiR6QbMxrrzNqFv

2-9-11 5-7-7
2-9-11 2-9-11

Scale = 1:14.3



0-0-6 5-7-7
0-0-6 5-7-1

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 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 5-7-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-6-11, 3=5-6-11, 4=5-6-11
Max Horz 1=36(LC 9)
Max Uplift 1=-23(LC 12), 3=-28(LC 13), 4=-4(LC 12)
Max Grav 1=113(LC 1), 3=113(LC 1), 4=192(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=15ft; 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, 4.
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.

April 26,2021

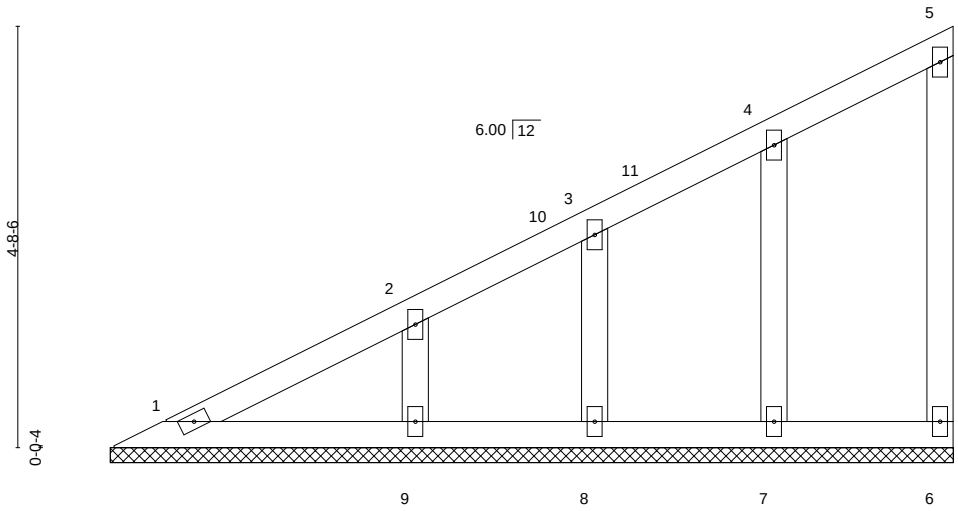
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V6	GABLE	1	1	I45809196
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:06 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-NlFB92hshn0GBGdTyYqKTOJvYrJv1cgPuvr1wkzNqFt

9-4-13
9-4-13

Scale = 1:25.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 34 lb	FT = 20%

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

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

REACTIONS. All bearings 9-4-13.
(lb) - Max Horz 1=161(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 6, 7, 8, 9
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 7, 8 except 9=260(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-251/157

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-4-13, Interior(1) 3-4-13 to 9-3-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are 2x4 MT20 unless otherwise indicated.
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) 6, 7, 8, 9.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

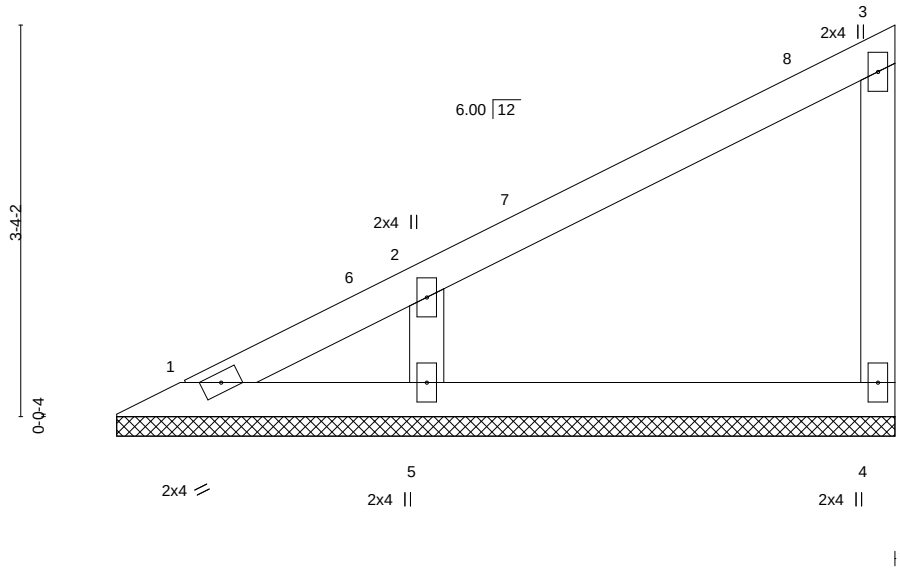
Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V7	Valley	1	1	I45809197
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:07 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-rypZMOhUS587pQCgVGLZ0cr3yFeOm3oY6ZbbSAzNqFs

6-8-5
6-8-5

Scale = 1:19.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	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=6-7-13, 4=6-7-13, 5=6-7-13
Max Horz 1=111(LC 9)
Max Uplift 4=-23(LC 12), 5=-101(LC 12)
Max Grav 1=51(LC 20), 4=141(LC 1), 5=359(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-279/236

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; 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 6-6-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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=101.
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.

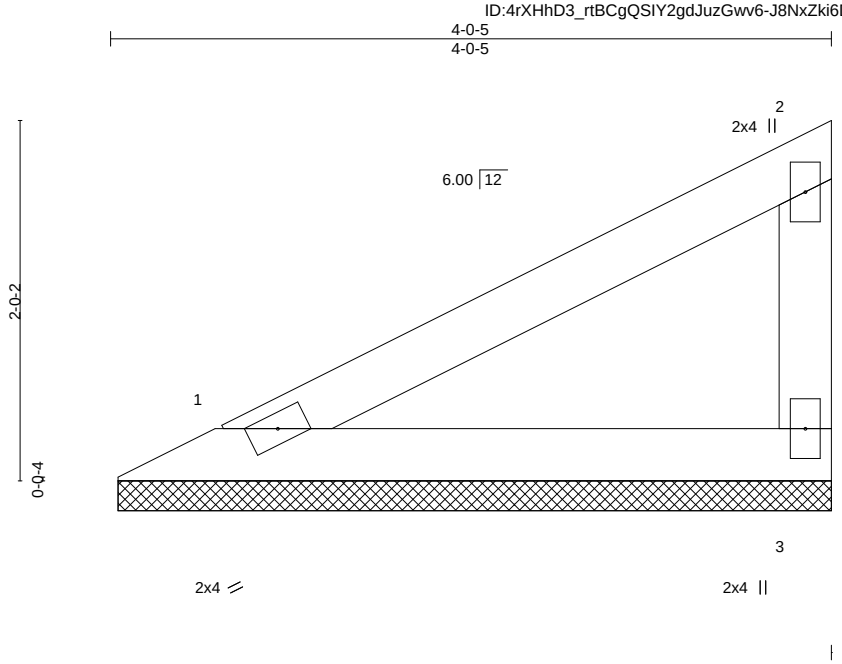
STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V8	Valley	1	1	I45809198
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:08 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-J8NxZki6DPG_Qans3ztoZpOEafzZVWhhLDK8_czNqFr



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-11-13, 3=3-11-13
Max Horz 1=61(LC 9)
Max Uplift 1=-19(LC 12), 3=-34(LC 12)
Max Grav 1=146(LC 1), 3=146(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; 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.

April 26,2021

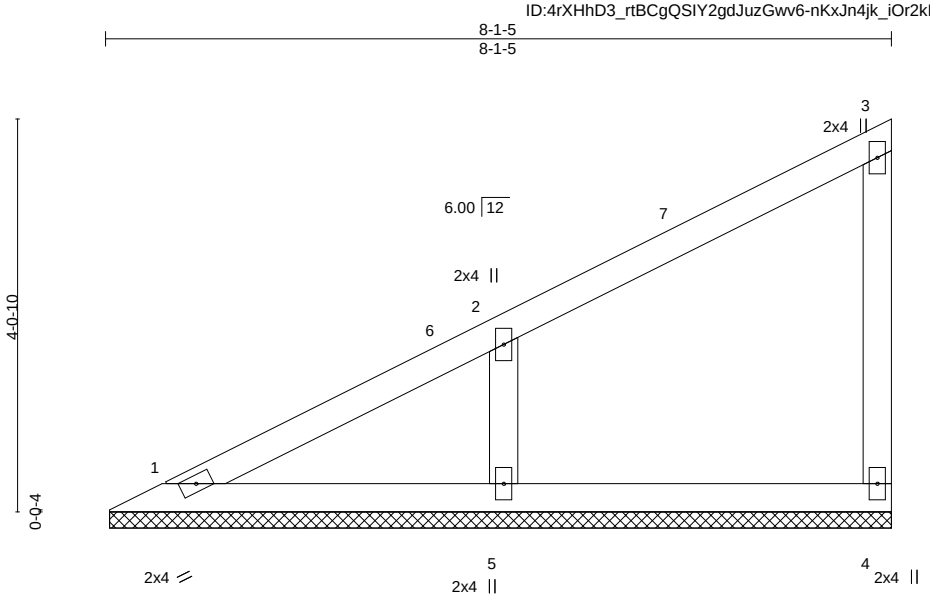
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V9	Valley	1	1	I45809199

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:09 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-nKxJn4jk_iOr2kM2dhO151wOs3JdEzGrat4hX3zNqFq



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	4	n/a	n/a		
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
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=8-0-13, 4=8-0-13, 5=8-0-13
Max Horz 1=137(LC 9)
Max Uplift 4=-25(LC 9), 5=-107(LC 12)
Max Grav 1=117(LC 20), 4=134(LC 1), 5=413(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-321/235

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-11-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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=107.
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.

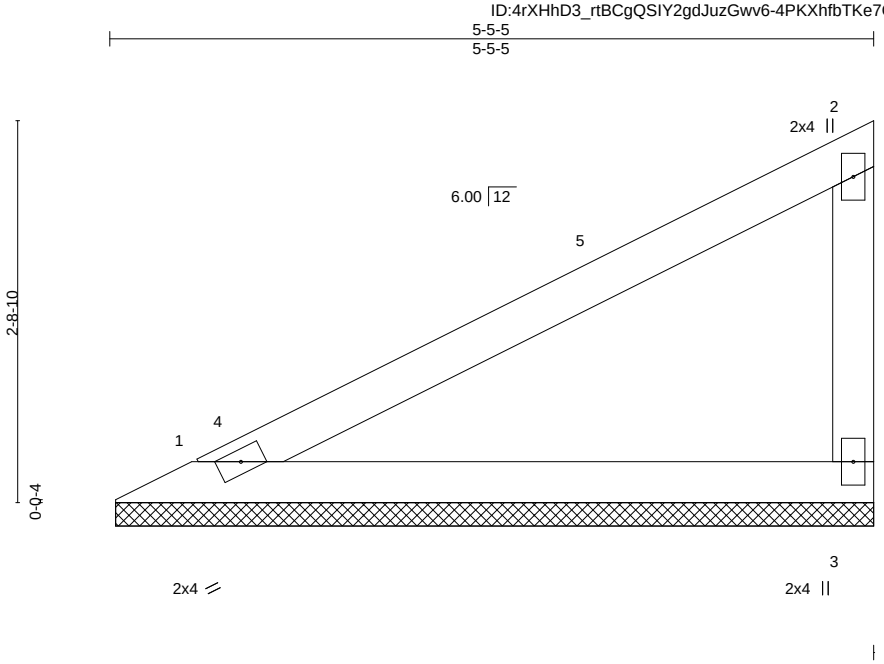
April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V10	Valley	1	1	I45809200
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:59 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-4PKXhfbTKe7GrCb71aChhwWdJ1tYuSSNHJfABezNqG_



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	0.42	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	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 5-5-5 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-4-13, 3=5-4-13
Max Horz 1=87(LC 9)
Max Uplift 1=-27(LC 12), 3=-49(LC 12)
Max Grav 1=210(LC 1), 3=210(LC 1)

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

NOTES-

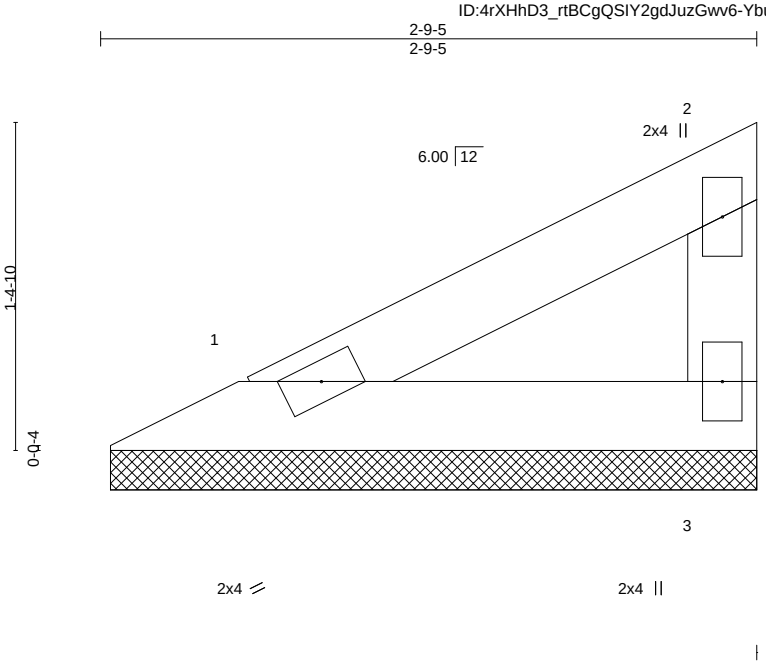
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-3-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for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

April 26,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/137 Hawthorne
2766770	V11	Valley	1	1	I45809201
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:00 2021 Page 1
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-Ybuwu?c55xF6TLAKbIjwE73tXQGkdviWVzOji4zNqFz



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-8-13, 3=2-8-13
Max Horz 1=38(LC 9)
Max Uplift 1=-11(LC 12), 3=-21(LC 12)
Max Grav 1=90(LC 1), 3=90(LC 1)

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

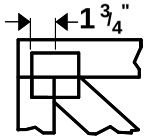
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions 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.

April 26,2021

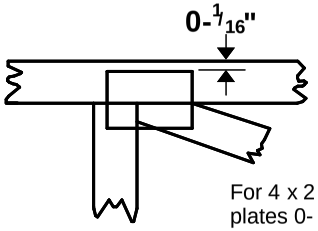
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- 1/16" from outside edge of truss.

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

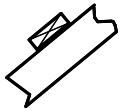
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

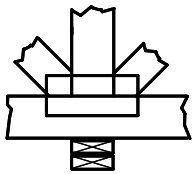
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

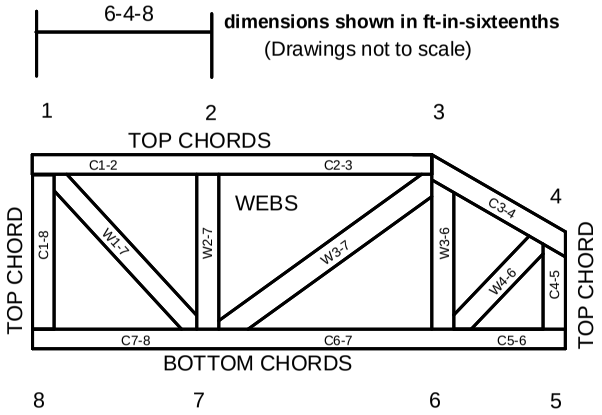


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

21.The design does not take into account any dynamic or other loads other than those expressly stated.