RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
10/27/2021 4:27:20

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

Re: 2955854
SUMMIT/WOODSIDE RIDGE #29/MO

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

Pages or sheets covered by this seal: I48255547 thru I48255597

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

Missouri COA: Engineering 001193

October 8,2021

Sevier, Scott ,Engineer

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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A1	Hip Girder	1	2	I48255547

Job Reference (optional)

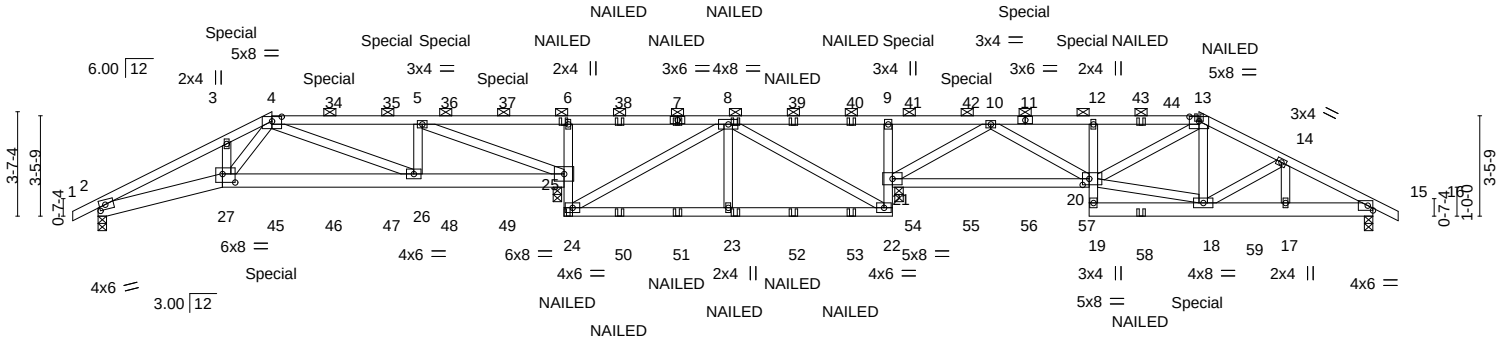
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:08:56 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-tzkj6YRXgjT3tg8S0nNxIiaSoUWqTFsALM2cG2yVqxr

-0-10-8 4-3-8 6-0-0 11-0-8 16-1-0 21-9-0 23-7-11 27-5-0 30-9-12 34-2-8 38-0-0 40-11-13 44-0-0 44-10-8

0-10-8 4-3-8 1-8-8 5-0-8 5-0-8 5-8-0 1-10-11 3-9-5 3-4-12 3-4-12 3-9-8 2-11-13 3-0-3 0-10-8

Scale = 1:79.5



4-3-8 6-0-0 11-0-8 15-8-8 16-1-0 21-9-0 23-7-11 27-5-0 27-9-8 30-9-12 34-2-8 38-0-0 40-11-13 44-0-0

4-3-8 1-8-8 5-0-8 4-8-0 0-4-8 5-8-0 1-10-11 3-9-5 0-4-8 3-0-4 3-4-12 3-9-8 2-11-13 3-0-3

Plate Offsets (X,Y)-- [2:0-2-8,0-2-0], [4:0-4-0,0-1-15], [13:0-4-0,0-1-15], [20:0-2-12,0-2-8], [27:0-5-4,0-3-8]

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	0.51	Vert(LL)	-0.09	26-27	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.20	26-27	>970	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.46	Horz(CT)	0.06	25	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 383 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except*
2-27,25-27,15-19: 2x6 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-15 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 4-13.

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

REACTIONS. All bearings 0-3-8.

(lb) - Max Horz 2=52(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) except 2=-332(LC 8), 21=-687(LC 9), 15=-359(LC 9), 25=-709(LC 8)
Max Grav All reactions 250 lb or less at joint(s) except 2=1586(LC 21), 21=3182(LC 22), 15=1654(LC 22), 25=3194(LC 21)

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

TOP CHORD 2-3=-4446/988, 3-4=-4147/987, 4-5=-2872/682, 5-6=-76/538, 6-8=-52/430, 8-9=-27/383, 9-10=-74/559, 10-12=-3370/821, 12-13=-3285/808, 13-14=-2745/676, 14-15=-2651/602

BOT CHORD 2-27=-882/3947, 26-27=-674/3029, 25-26=-614/2866, 24-25=-157/779, 6-25=-820/221, 23-24=-155/681, 22-23=-155/681, 21-22=-155/781, 9-21=-777/212, 20-21=-436/1946, 12-20=-690/190, 18-19=-94/313, 17-18=-485/2308, 15-17=-485/2308

WEBS 3-27=-183/417, 5-26=0/360, 5-25=-3669/803, 8-23=-102/599, 18-20=-418/2161, 13-20=-237/1045, 13-18=-83/280, 14-18=-231/289, 14-17=-294/100, 4-27=-291/1280, 8-24=-1275/285, 8-22=-1226/264, 10-20=-311/1671, 10-21=-2938/674

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) 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) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 2 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 332 lb uplift at joint 2, 687 lb uplift at joint 21, 359 lb uplift at joint 15 and 709 lb uplift at joint 25.
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.

Continued on page 2

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

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 238 lb down and 116 lb up at 6-0-0, 214 lb down and 116 lb up at 8-0-0, 214 lb down and 116 lb up at 10-0-0, 214 lb down and 116 lb up at 12-0-0, 214 lb down and 116 lb up at 14-0-0, 214 lb down and 116 lb up at 28-0-0, 214 lb down and 116 lb up at 30-0-0, and 214 lb down and 116 lb up at 32-0-0, and 214 lb down and 116 lb up at 34-0-0 on top chord, and 497 lb down and 159 lb up at 6-0-0, and 633 lb down and 212 lb up at 37-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-90, 4-13=-90, 13-16=-90, 27-28=-20, 25-27=-20, 22-24=-20, 20-21=-20, 19-31=-20
   Concentrated Loads (lb)
   Vert: 4=-214(B) 7=-73(B) 6=-73(B) 8=-73(B) 23=-138(B) 11=-214(B) 13=-73(B) 25=-138(B) 34=-214(B) 35=-214(B) 36=-214(B) 37=-214(B) 38=-73(B) 39=-73(B) 40=-73(B) 41=-214(B) 42=-214(B) 43=-214(B) 44=-73(B) 45=-497(B) 50=-138(B) 51=-138(B) 52=-138(B) 53=-138(B) 58=-138(B) 59=-633(B)

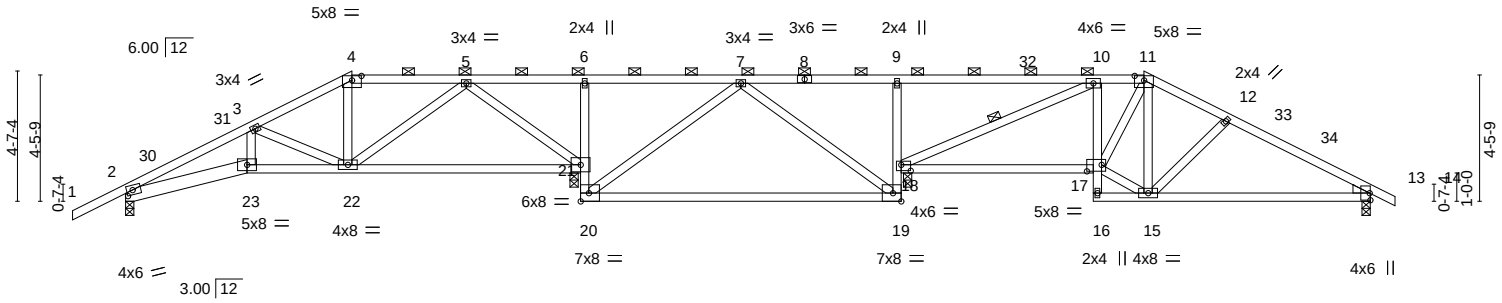
Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A2	Hip	1	1	I48255548

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:14 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-MRqWuifpRFkV1RWv4Zi91VKYDlgugNUqT9PZv0yVqxZ

1-10-8	4-3-8	8-0-0	12-0-8	16-1-0	21-9-0	27-5-0	34-2-8	36-0-0	38-10-12	44-0-0	44-10-8
1-10-8	4-3-8	3-8-8	4-0-8	4-0-8	5-8-0	5-8-0	6-9-8	1-9-8	2-10-12	5-1-4	0-10-8

Scale = 1:81.4



4-3-8	8-0-0	15-8-8	16-1-0	21-9-0	27-5-0	27-9-8	34-2-8	36-0-0	44-0-0
4-3-8	3-8-8	7-8-8	0-4-8	5-8-0	5-8-0	0-4-8	6-5-0	1-9-8	8-0-0

Plate Offsets (X,Y)-- [2:0-2-8,0-2-0], [4:0-4-0,0-1-15], [11:0-4-0,0-1-15], [17:0-6-4,0-2-12], [18:0-4-0,0-2-8]

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	0.38	Vert(LL)	-0.34	19-20	>395	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.69	19-20	>192	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.04	21	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 199 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
2-23: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 4-11.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 10-18

REACTIONS. All bearings 0-3-8.
(lb) - Max Horz 2=84(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) except 2=-154(LC 12), 21=-226(LC 12), 18=-216(LC 13), 13=-154(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except 2=1028(LC 1), 21=1572(LC 25), 18=1527(LC 26), 13=981(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1999/296, 3-4=-1245/183, 4-5=-1061/187, 10-11=-1204/242, 11-12=-1068/213, 12-13=-1356/240
BOT CHORD 2-23=-271/1733, 22-23=-259/1669, 21-22=-68/712, 20-21=-21/388, 6-21=-467/130, 19-20=-29/307, 18-19=-22/317, 9-18=-603/168, 17-18=-91/1249, 13-15=-137/1134
WEBS 3-23=-35/327, 3-22=-659/176, 4-22=0/268, 5-22=-38/435, 5-21=-1046/205, 10-18=-1313/181, 15-17=-9/1004, 11-17=-78/640, 12-15=-332/122, 7-19=-342/113, 7-20=-463/112

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) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 12-0-8, Interior(1) 12-0-8 to 36-0-0, Exterior(2R) 36-0-0 to 40-2-15, Interior(1) 40-2-15 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 154 lb uplift at joint 2, 226 lb uplift at joint 21, 216 lb uplift at joint 18 and 154 lb uplift at joint 13.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 8,2021

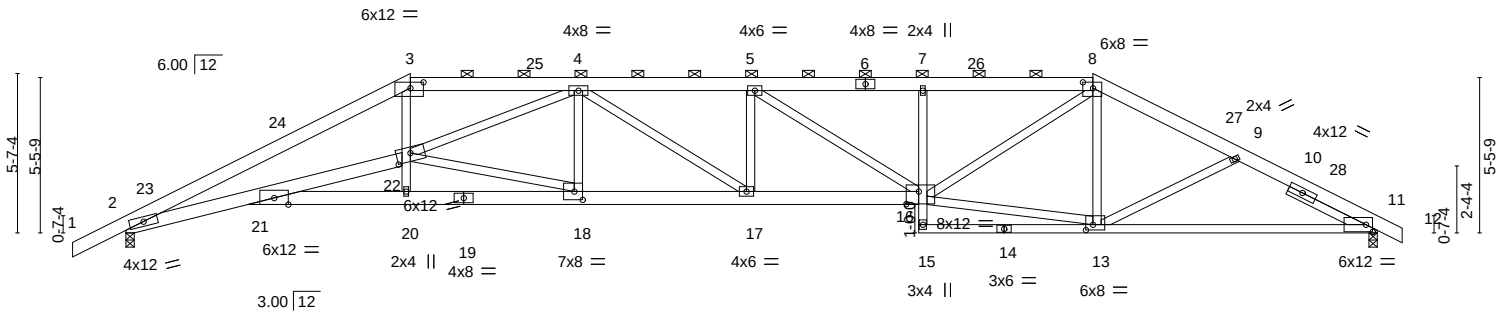
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A3	Hip	1	1	I48255549
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:15 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-qdOu52gRCZsMeb56dGDOajtac9xsPI_zip96RSyVqxY

-1-10-8	4-3-8	10-0-0	12-11-12	15-10-15	21-11-9	24-10-12	27-10-8	34-0-0	38-11-13	44-0-0	44-10-8
1-10-8	4-3-8	5-8-8	2-11-12	2-11-3	6-0-11	2-11-3	2-11-12	6-1-8	4-11-13	5-0-3	0-10-8

Scale = 1:81.0



4-3-8	10-0-0	12-11-12	15-10-15	15-11-8	21-11-0	21-11-9	27-10-8	34-0-0	44-0-0
4-3-8	5-8-8	2-11-12	2-11-3	0-0-9	5-11-8	0-0-9	5-10-15	6-1-8	10-0-0

Plate Offsets (X,Y)-- [3:0-5-8,0-2-8], [8:0-4-4,0-2-8], [11:0-2-13,0-3-0], [13:0-3-0,0-2-4], [16:0-5-4,0-5-4], [18:0-3-8,0-3-8], [22:0-6-0,0-3-8]

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	0.98	Vert(LL)	-0.41	17	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.92	17-18	>571	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.41	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 255 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-3: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
2-22: 2x6 SP 2400F 2.0E, 19-21: 2x6 SPF No.2
16-19: 2x6 SPF 2100F 1.8E, 11-14: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 3-0-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-5-7 max.): 3-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 2-21.

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=100(LC 16)
Max Uplift 2=-304(LC 12), 11=-284(LC 13)
Max Grav 2=2589(LC 1), 11=2493(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6793/682, 3-4=-5734/661, 4-5=-6588/767, 5-7=-6044/706, 7-8=-6010/705, 8-9=-4090/453, 9-11=-4390/518
BOT CHORD 2-21=-583/6001, 21-22=-342/3565, 20-21=-309/2494, 18-20=-314/2557, 17-18=-657/6047, 16-17=-707/6588, 7-16=-603/164, 13-15=-33/317, 11-13=-383/3759
WEBS 20-22=0/394, 3-22=-171/2355, 8-13=-392/140, 5-16=-743/169, 4-18=-793/138, 4-17=-176/730, 18-22=-354/3590, 4-22=-692/288, 13-16=-265/3358, 8-16=-408/2881

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) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 34-0-0, Exterior(2R) 34-0-0 to 38-2-15, Interior(1) 38-2-15 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 304 lb uplift at joint 2 and 284 lb uplift at joint 11.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 8,2021

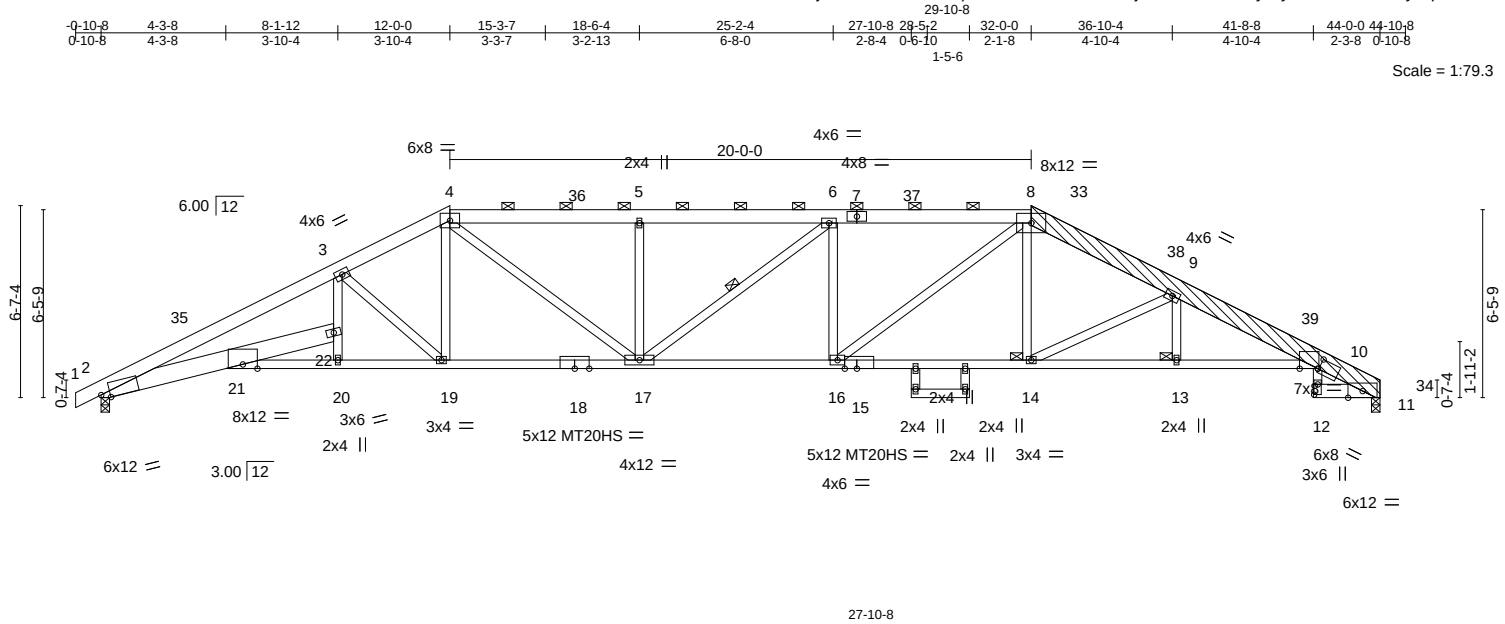
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A4	Hip	1	1	I48255550

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:17 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-m0WfWkiijA74uuEUlhFsf8yzkyfXthXGA7eDVLyVqxW



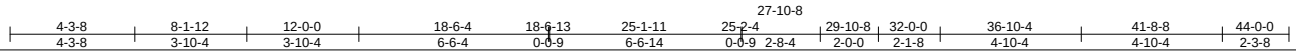


Plate Offsets (X,Y)-- [2:0-3-12,0-1-13], [10:0-7-8,Edge], [10:0-0-7,0-4-7], [12:0-4-4,0-1-8], [15:0-5-0,Edge]

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	0.82	Vert(LL)	-0.39	16-17	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.88	16-17	>599	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.50	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 301 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except*
	8-11: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	2-22: 2x8 SP 2400F 2.0E, 18-21,10-15: 2x4 SP 2400F 2.0E
	11-12: 2x6 SPF 2100F 1.8E, 15-18: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2 *Except*
	4-19: 2x4 SP 2400F 2.0E
OTHERS	2x8 SP 2400F 2.0E
LBR SCAB	8-11 2x8 SP 2400F 2.0E one side

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (2-10-5 max.): 4-8.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-17
JOINTS	1 Brace at Jt(s): 14, 13

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=65(LC 11)
Max Uplift 2=-7(LC 9), 11=-3(LC 8)
Max Grav 2=2492(LC 1), 11=2419(LC 1)

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

TOP CHORD	2-3=-5748/531, 3-4=-4699/475, 4-5=-5143/525, 5-6=-5140/524, 6-8=-5148/529,
	8-9=-4680/469, 9-10=-5768/519, 10-11=-1056/117
BOT CHORD	2-21=-403/5079, 21-22=-35/453, 20-21=-372/4804, 19-20=-387/4996, 17-19=-266/4129,
	16-17=-351/5148, 14-16=-268/4167, 13-14=-415/5339, 10-13=-415/5339
WEBS	10-12=-39/502, 4-19=-57/827, 8-14=-28/734, 9-14=-1339/172, 3-22=-18/683,
	5-17=-651/127, 4-17=-110/1415, 6-16=-685/119, 8-16=-104/1362, 3-19=-1126/159

NOTES-

1) Attached 13-8-4 scab 8 to 11, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 3-8-15 from end at joint 8, nail 2 row(s) at 7" o.c. for 2-10-2; starting at 8-10-13 from end at joint 8, nail 2 row(s) at 2" o.c. for 4-4-4.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 1-10-0, Interior(1) 1-10-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-2-15, Interior(1) 16-2-15 to 32-0-0, Exterior(2R) 32-0-0 to 36-2-15, Interior(1) 36-2-15 to 43-10-5 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 2, 11 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 7 lb uplift at joint 2 and 3 lb uplift at joint 11.
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.

October 8,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A5	Hip	1	1	I48255551
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:19 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-iOdPxQjyFnNo7COts6HKkZ1J?mHDLbZZdR7JaDyVqxU

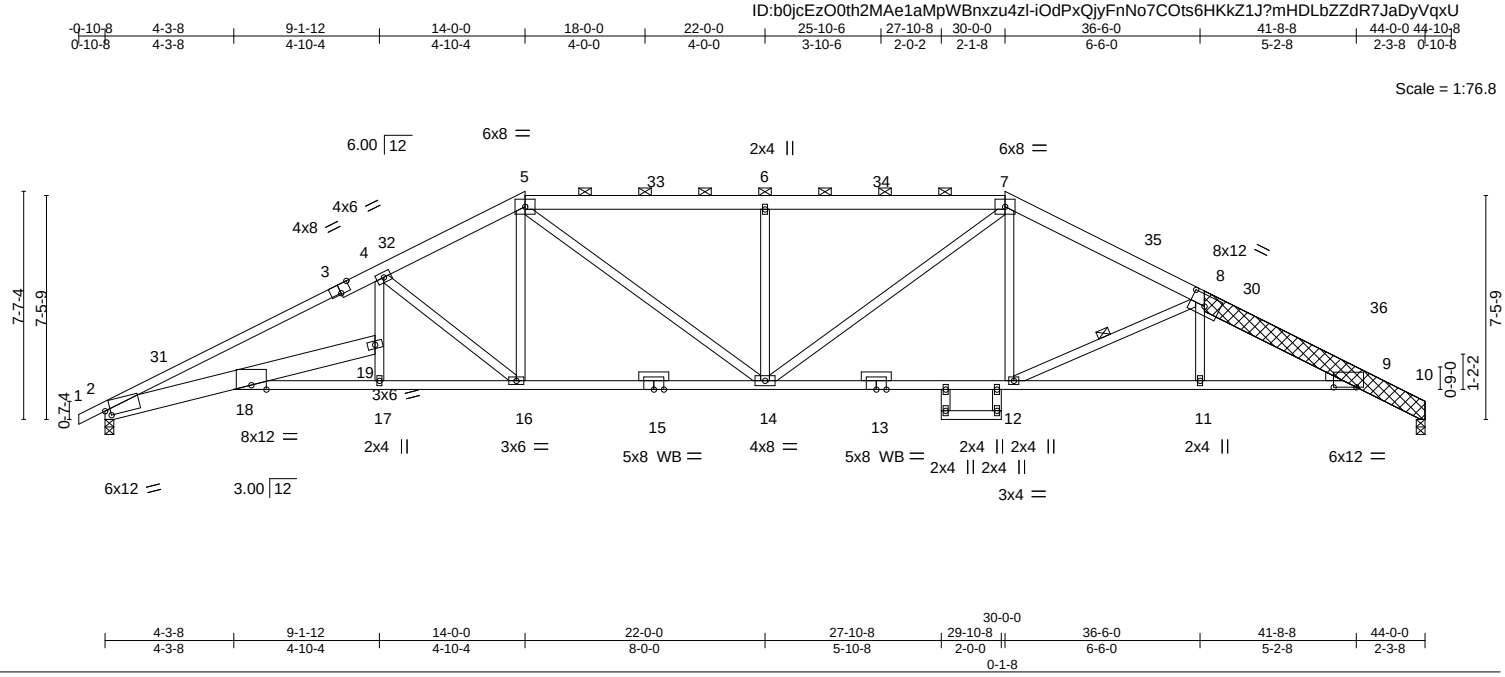


Plate Offsets (X,Y)-- [2:0-2-2,0-2-3], [3:0-4-0,Edge], [8:0-6-0,0-4-8], [9:0-9-2,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.34	14-16	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.81	14-16	>650	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.50	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 294 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except*
	1-3: 2x4 SP 2400F 2.0E, 8-10: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	2-19: 2x8 SP 2400F 2.0E, 15-18: 2x4 SP 2400F 2.0E
	9-13: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x8 SP 2400F 2.0E *Except*
	15-15,13-13: 2x4 SPF No.2
LBR SCAB	8-10 2x8 SP 2400F 2.0E both sides
WEDGE	
Right: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (2-11-5 max.): 5-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-12

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=120(LC 16)
Max Uplift 2=-278(LC 12), 10=-258(LC 13)
Max Grav 2=2492(LC 1), 10=2416(LC 1)

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

TOP CHORD	2-4=-5476/612, 4-5=-4337/496, 5-6=-4445/489, 6-7=-4445/489, 7-8=-4364/459,
	8-9=-5505/575, 9-10=-1070/136
BOT CHORD	2-18=-551/4781, 18-19=-51/383, 17-18=-506/4565, 16-17=-529/4722, 14-16=-323/3794,
	12-14=-224/3791, 11-12=-446/5120, 9-11=-448/5114
WEBS	5-16=-102/839, 7-12=-46/736, 8-12=-1434/268, 4-19=-28/616, 6-14=-836/228,
	7-14=-182/1014, 5-14=-178/998, 4-16=-1165/260

NOTES-

1) Attached 8-5-15 scab 8 to 10, both face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-7 from end at joint 8, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 3-8-7 from end at joint 8, nail 3 row(s) at 4" o.c. for 2-11-8.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 18-2-15, Interior(1) 18-2-15 to 30-0-0, Exterior(2R) 30-0-0 to 34-2-15, Interior(1) 34-2-15 to 43-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Bearing at joint(s) 2, 10 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 278 lb uplift at joint 2 and 258 lb uplift at joint 10.

Continued on page 2

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

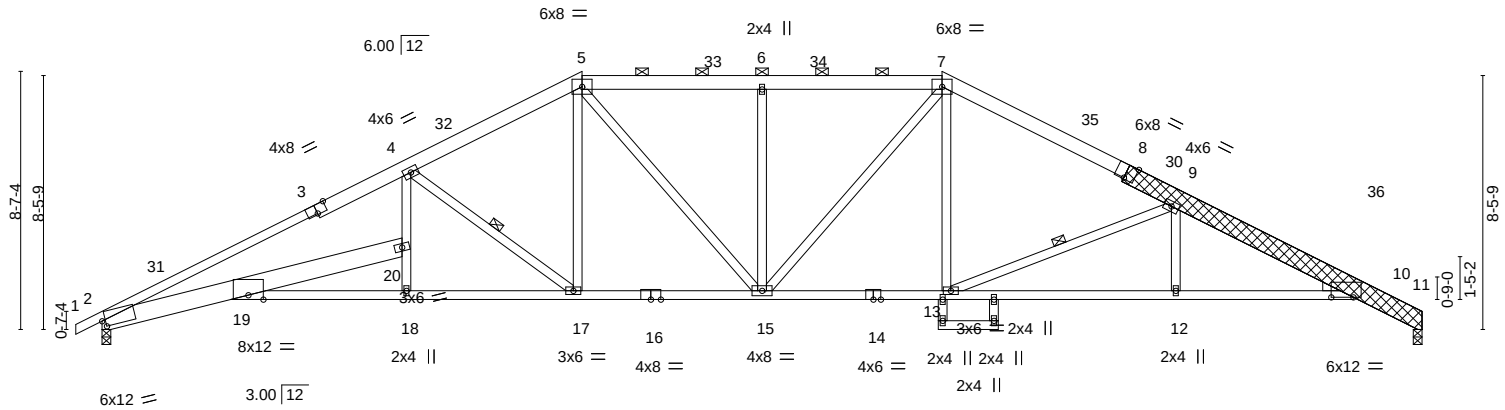
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A6	Hip	1	1	I48255552
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:20 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-AbBn8mka05VflMz3QppZHmaSdAdK42Ris5st6fyVqxT

-0-10-8 4-3-8 10-1-12 16-0-0 22-0-0 28-0-0 29-10-8 35-9-8 41-8-8 44-0-0 44-10-8
0-10-8 4-3-8 5-10-4 5-10-4 6-0-0 6-0-0 1-10-8 5-11-0 5-11-0 2-3-8 0-10-8

Scale = 1:76.8



4-3-8 10-1-12 16-0-0 22-0-0 27-10-8 28-0-0 29-10-8 35-9-8 41-8-8 44-0-0
4-3-8 5-10-4 5-10-4 6-0-0 5-10-8 0-1-8 1-10-8 5-11-0 5-11-0 2-3-8

Plate Offsets (X,Y)-- [2:0-1-6,0-2-7], [3:0-4-0,Edge], [8:0-4-0,Edge], [10:0-8-14,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.36	19-20	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.82	19-20	>643	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.55	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 316 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except*
	1-3: 2x4 SP 2400F 2.0E, 8-11: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	2-20: 2x8 SP 2400F 2.0E, 16-19,10-14: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x8 SP 2400F 2.0E
LBR SCAB	8-11 2x8 SP 2400F 2.0E both sides
WEDGE	
Right: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (3-6-8 max.): 5-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-17, 9-13

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=136(LC 16)
Max Uplift 2=-276(LC 12), 11=-255(LC 13)
Max Grav 2=2492(LC 1), 11=2416(LC 1)

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

TOP CHORD	2-4=-5290/581, 4-5=-4013/458, 5-6=-3774/451, 6-7=-3774/451, 7-9=-4063/435, 9-10=-5420/575, 10-11=-1070/135
BOT CHORD	2-19=-532/4597, 19-20=-49/356, 18-19=-488/4403, 17-18=-509/4548, 15-17=-269/3459, 13-15=-184/3468, 12-13=-445/5012, 10-12=-445/5012
WEBS	4-20=-8/612, 4-17=-1338/297, 5-17=-125/900, 5-15=-139/674, 6-15=-627/171, 7-15=-142/677, 9-12=0/289, 7-13=-73/791, 9-13=-1658/339

NOTES-

1) Attached 11-1-14 scab 8 to 11, both face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 6-6-4 from end at joint 8, nail 3 row(s) at 4" o.c. for 2-11-7.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 20-2-15, Interior(1) 20-2-15 to 28-0-0, Exterior(2R) 28-0-0 to 32-2-15, Interior(1) 32-2-15 to 43-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Bearing at joint(s) 2, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 276 lb uplift at joint 2 and 255 lb uplift at joint 11.
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.

October 8,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A7	Hip	1	1	I48255553
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:22 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-7zJYZRmqYilN_f7SYEr1MBfodzLtY?R?JPL_BYyVqxR

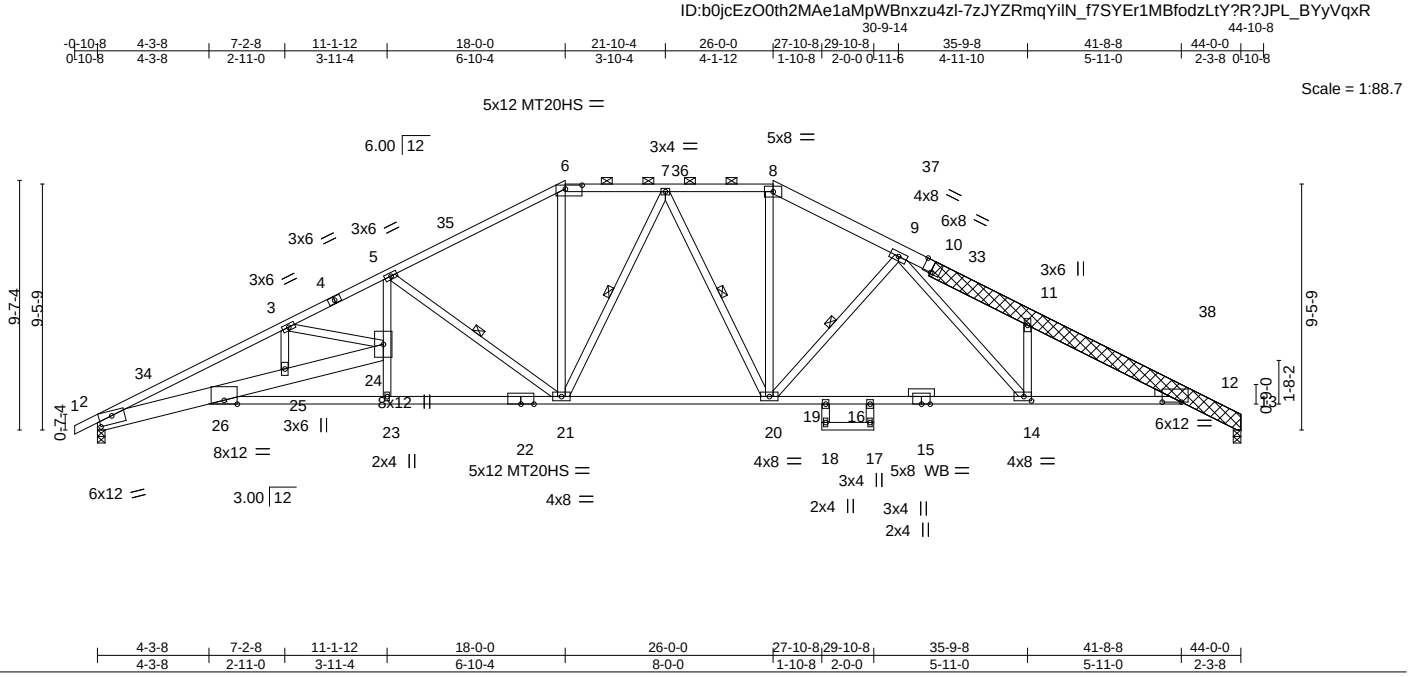


Plate Offsets (X,Y)-- [2:0-6-0,0-3-12], [6:0-7-12,0-1-12], [10:0-4-0,Edge], [12:0-8-14,0-0-0], [14:0-3-8,0-2-0]

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	0.93	Vert(LL)	-0.33	21	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.80	14-16	>654	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.46	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 332 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except*
	6-8: 2x4 SPF No.2, 8-10: 2x6 SPF No.2, 10-13: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF 1650F 1.5E *Except*
	2-24: 2x8 SP 2400F 2.0E, 18-19,17-18,16-17: 2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x8 SP 2400F 2.0E *Except*
	15-15: 2x4 SPF No.2
LBR SCAB	10-13 2x8 SP 2400F 2.0E both sides
WEDGE	
Right: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (2-10-13 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied. Except:
	10-0-0 oc bracing: 23-26
WEBS	1 Row at midpt 5-21, 9-20, 7-21, 7-20

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=154(LC 16)
Max Uplift 2=-238(LC 12), 13=-217(LC 13)
Max Grav 2=2492(LC 1), 13=2416(LC 1)

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

TOP CHORD	2-3=-6475/645, 3-5=-4748/475, 5-6=-3657/421, 6-7=-3143/415, 7-8=-3160/407,
	8-9=-3597/424, 9-11=-5561/588, 11-12=-5322/470, 12-13=-1070/120
BOT CHORD	2-26=-643/5724, 25-26=-283/1717, 24-25=-272/1542, 23-26=-359/4170, 21-23=-359/4180,
	20-21=-159/3236, 19-20=-254/3814, 16-19=-270/3724, 14-16=-254/3814,
	12-14=-351/4895
WEBS	5-24=-66/765, 5-21=-1260/265, 6-21=-74/1077, 8-20=-93/1127, 9-20=-1034/251,
	9-14=-233/1660, 11-14=-1067/248, 7-21=-449/121, 7-20=-382/120, 3-25=-48/721,
	3-24=-1538/271

NOTES-

1) Attached 13-4-12 scab 10 to 13, both face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 8-9-2 from end at joint 10, nail 3 row(s) at 4" o.c. for 2-11-7.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 18-0-0, Exterior(2R) 18-0-0 to 22-2-15, Interior(1) 22-2-15 to 26-0-0, Exterior(2R) 26-0-0 to 30-2-15, Interior(1) 30-2-15 to 43-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) The Fabrication Tolerance at joint 6 = 16%
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 2, 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

Continued on page 2

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 238 lb uplift at joint 2 and 217 lb uplift at joint 13.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A8	Hip	1	1	I48255554
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:24 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-3MRI_7n54K?5EzHqfftVRckCin0S0tAInjq4FRyVqxP

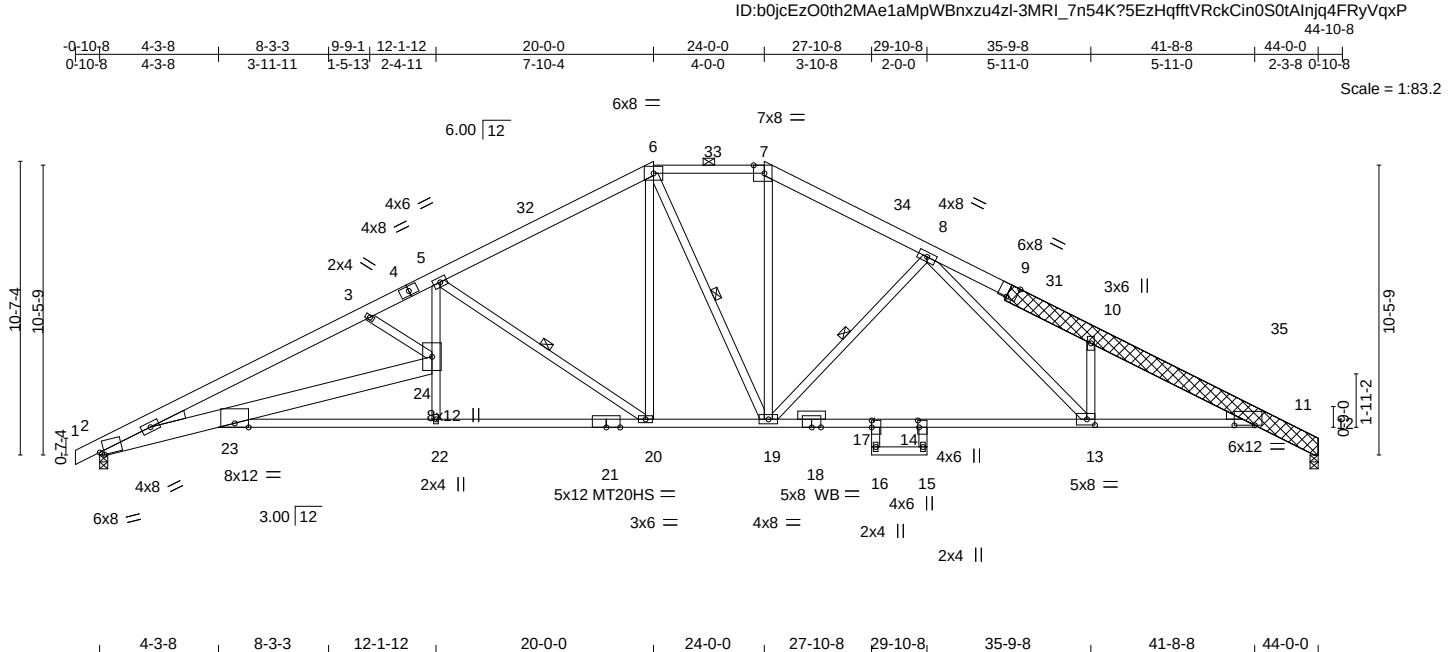


Plate Offsets (X,Y)-- [2:0-1-14,0-1-7], [7:0-4-10,Edge], [9:0-4-0,Edge], [11:0-8-14,0-0-0], [13:0-3-8,0-2-8], [14:0-3-0,0-0-8], [17:0-3-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.40	23-24	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.95	13-14	>556	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.52	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 342 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except*
	6-7: 2x4 SPF No.2, 1-4: 2x6 SPF 2100F 1.8E
	9-12: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	2-24: 2x8 SP 2400F 2.0E, 21-23,11-18,18-21: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x8 SP 2400F 2.0E *Except*
	18-18: 2x4 SPF No.2
LBR SCAB	9-12 2x8 SP 2400F 2.0E both sides
WEDGE	
Left: 2x4 SP No.3 , Right: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (3-1-4 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied. Except:
	10-0-0 oc bracing: 22-23
WEBS	1 Row at midpt 5-20, 6-19, 8-19

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=171(LC 16)
Max Uplift 2=-269(LC 12), 12=-248(LC 13)
Max Grav 2=2492(LC 1), 12=2416(LC 1)

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

TOP CHORD	2-3=-5525/634, 3-5=-4776/541, 5-6=-3387/411, 6-7=-2884/400, 7-8=-3366/416,
	8-10=-5576/652, 10-11=-5338/495, 11-12=-1070/132
BOT CHORD	2-23=-624/4877, 23-24=-211/1024, 22-23=-416/4003, 20-22=-423/4070, 19-20=-173/2883,
	17-19=-240/3681, 14-17=-282/3536, 13-14=-240/3681, 11-13=-365/4905
WEBS	22-24=0/322, 5-24=-133/1233, 5-20=-1421/300, 6-20=-134/868, 6-19=-253/274,
	7-19=-113/1045, 8-19=-1156/289, 8-13=-259/1783, 10-13=-1072/274, 3-24=-988/225

NOTES-

1) Attached 12-7-9 scab 9 to 12, both face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 7-11-15 from end at joint 9, nail 3 row(s) at 4" o.c. for 2-11-7.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 1-10-0, Interior(1) 1-10-0 to 20-0-0, Exterior(2E) 20-0-0 to 24-0-0, Exterior(2R) 24-0-0 to 28-2-15, Interior(1) 28-2-15 to 43-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 2, 12 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 269 lb uplift at joint 2 and 248 lb uplift at joint 12.

Continued on page 2

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

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A8	Hip	1	1	I48255554
					Job Reference (optional)

NOTES-

9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

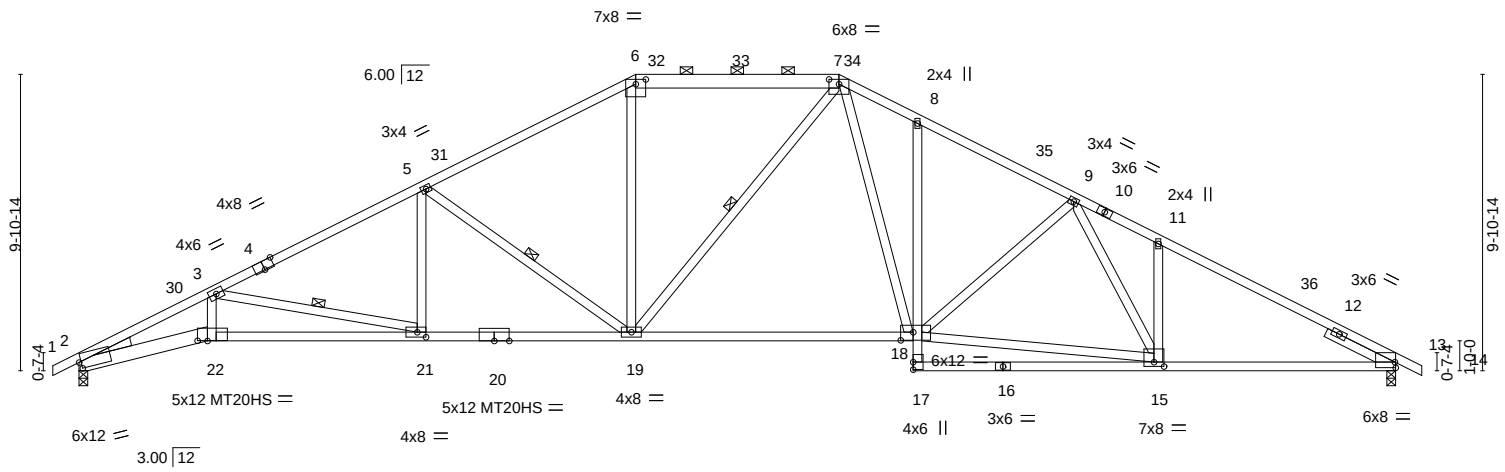
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A9	Piggyback Base	3	1	I48255555
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:26 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-?IY3PppLcxFoTHQDn4wzW1qWYaifUj9bE1JBKJyVqxN

-0-10-8 4-3-8 11-5-6 18-7-4 25-4-12 27-10-8 33-2-14 35-11-1 38-7-5 44-0-0 44-10-8
0-10-8 4-3-8 7-1-14 7-1-14 6-9-8 2-5-12 5-4-6 2-8-3 2-8-3 5-4-11 0-10-8

Scale = 1:77.0



4-3-8 11-5-6 18-7-4 25-4-12 27-10-8 35-11-1 44-0-0
4-3-8 7-1-14 7-1-14 6-9-8 2-5-12 8-0-9 8-0-15

Plate Offsets (X,Y)-- [2:0-0-14,0-2-9], [4:0-4-0,Edge], [6:0-4-0,0-1-15], [7:0-4-0,0-1-15], [13:Edge,0-2-4], [15:0-4-0,0-1-12], [18:0-5-0,0-3-4], [21:0-3-8,0-2-0], [22:0-4-0,0-0-1]

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	0.81	Vert(LL)	-0.35	21-22	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.91	18-19	>577	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.38	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 221 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E *Except*
6-7: 2x6 SPF No.2, 7-10: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-22: 2x6 SPF 2100F 1.8E, 20-22,13-16: 2x4 SP 2400F 2.0E
18-20: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-7-9 max.): 6-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-21, 5-19, 7-19

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=155(LC 12)
Max Uplift 2=-270(LC 12), 13=-272(LC 13)
Max Grav 2=2490(LC 1), 13=2504(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7063/811, 3-5=-4749/512, 5-6=-3581/444, 6-7=-3049/438, 7-8=-3810/528, 8-9=-3860/462, 9-11=-4097/531, 11-13=-4200/437
BOT CHORD 2-22=-829/6302, 21-22=-814/6214, 19-21=-442/4172, 18-19=-145/2997, 8-18=-338/140, 13-15=-286/3632
WEBS 3-22=-89/1111, 3-21=-2089/381, 5-21=-31/624, 5-19=-1362/298, 6-19=-58/910, 15-18=-254/3475, 9-18=-420/177, 11-15=-336/184, 7-18=-223/1256, 7-19=-195/329

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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 18-7-4, Exterior(2R) 18-7-4 to 24-9-15, Interior(1) 24-9-15 to 25-4-12, Exterior(2R) 25-4-12 to 31-7-7, Interior(1) 31-7-7 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) The Fabrication Tolerance at joint 22 = 0%
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 2 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 270 lb uplift at joint 2 and 272 lb uplift at joint 13.
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.

Continued on page 2

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

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A9A	Piggyback Base	1	1	I48255556
					Job Reference (optional)

Builders First Source, Valley Center, KS 67147

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 15:12:25 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-aBJLcnY1PbgHPQbTBJGsEtFA4f9QMbXOUpTet7yVmVK

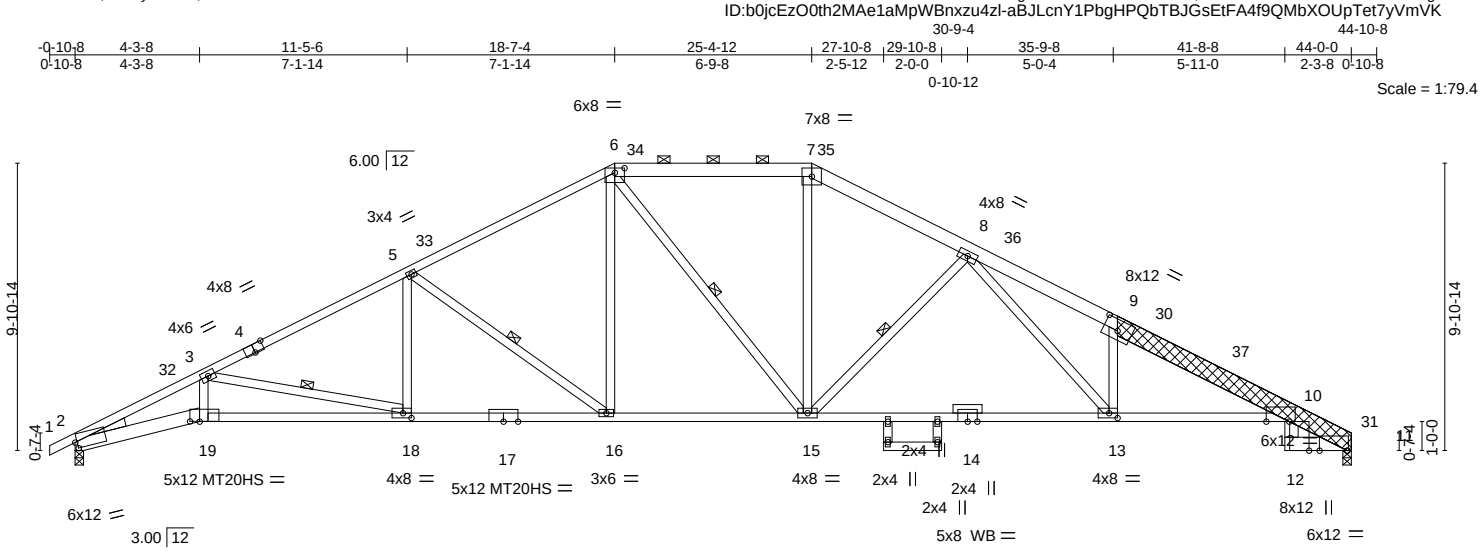


Plate Offsets (X,Y)-- [2:0-0-14,0-2-9], [4:0-4-0,Edge], [6:0-4-0,0-1-15], [9:0-6-0,0-4-8], [10:0-9-8,0-0-0], [11:0-11-8,Edge], [13:0-3-8,0-2-0], [18:0-3-8,0-2-0], [19:0-4-0,0-0-1]

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	0.79	Vert(LL)	-0.36	18-19	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.94	13-15	>559	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.49	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 285 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E *Except*
6-7,7-9: 2x6 SPF No.2, 9-11: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-19,11-12: 2x6 SPF 2100F 1.8E, 17-19: 2x4 SP 2400F 2.0E
10-12: 2x6 SPF No.2, 14-17,10-14: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x8 SP 2400F 2.0E *Except*
14-14: 2x4 SPF No.2
LBR SCAB 9-11 2x8 SP 2400F 2.0E both sides
WEDGE
Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-8-14 max.): 6-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-18, 5-16, 6-15, 8-15

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=160(LC 16)
Max Uplift 2=-242(LC 12), 11=-221(LC 13)
Max Grav 2=2492(LC 1), 11=2417(LC 1)

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

TOP CHORD 2-32=-7059/706, 3-32=-6937/725, 3-4=-4761/475, 4-5=-4676/503, 5-33=-3570/419, 6-33=-3413/453, 6-34=-3067/437, 34-35=-3073/437, 7-35=-3073/437, 7-8=-3524/449, 8-36=-5349/608, 9-36=-5536/593, 9-30=-5153/501, 30-37=-5261/482, 10-37=-5375/472, 10-31=-1270/145, 11-31=-1170/121
BOT CHORD 2-19=-756/6299, 18-19=-742/6211, 17-18=-380/4183, 16-17=-380/4183, 15-16=-163/3037, 14-15=-287/3816, 13-14=-287/3816, 10-13=-381/4910, 10-12=-53/609
WEBS 3-19=-81/1102, 3-18=-2075/370, 5-18=-20/663, 5-16=-1390/289, 6-16=-118/914, 6-15=-207/320, 7-15=-76/953, 9-13=-1012/236, 8-15=-1107/266, 8-13=-208/1606

NOTES-

1) Attached 9-3-7 scab 9 to 11, both face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-7 from end at joint 9, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 6-0-9 from end at joint 9, nail 3 row(s) at 7" o.c. for 2-9-11.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 18-7-4, Exterior(2R) 18-7-4 to 24-9-15, Interior(1) 24-9-15 to 25-4-12, Exterior(2R) 25-4-12 to 31-7-7, Interior(1) 31-7-7 to 43-10-5 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) The Fabrication Tolerance at joint 19 = 0%
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 2, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

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

October 8,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

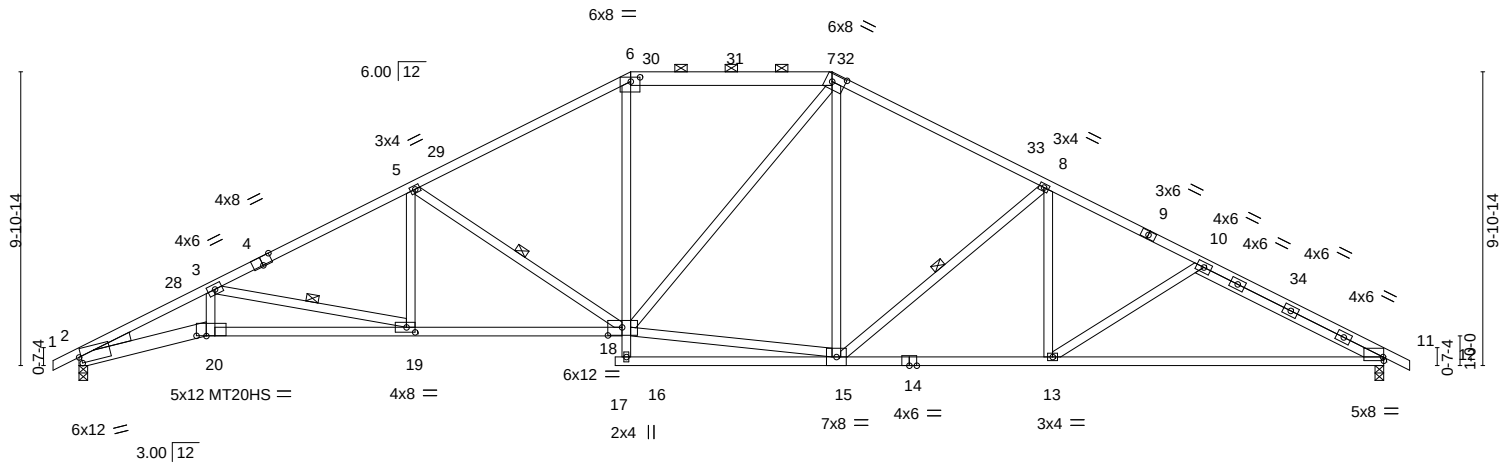
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 242 lb uplift at joint 2 and 221 lb uplift at joint 11.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A10	Piggyback Base	1	1	I48255557
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:08:57 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-M9I5JuS9R1bwUqjeaUuArw7Y1up1CfxKZ0o9oVyVqxq

-0-10-8	4-3-8	11-2-4	18-1-0	18-7-4	25-4-12	31-7-1	32-8-4	37-9-6	44-0-0	44-10-8
0-10-8	4-3-8	6-10-12	6-10-12	0-6-4	6-9-8	6-2-5	1-1-3	5-1-2	6-2-10	0-10-8

Scale = 1:77.7



4-3-8	11-2-4	18-1-0	18-7-4	25-4-12	32-8-4	34-8-3	44-0-0
4-3-8	6-10-12	6-10-12	0-6-4	6-9-8	7-3-8	1-11-15	9-3-13

Plate Offsets (X,Y)-- [2:0-0-14,0-2-9], [4:0-4-0,Edge], [6:0-3-12,0-1-12], [7:0-5-4,0-3-0], [11:Edge,0-1-8], [18:0-5-12,0-3-4], [19:0-3-8,0-2-0], [20:0-4-0,0-0-1]

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	0.80	Vert(LL)	-0.33	19-20	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.74	19-20	>715	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.33	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 224 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E *Except*
6-7: 2x6 SPF No.2, 9-12: 2x4 SPF No.2
BOT CHORD 2x4 SP 2400F 2.0E *Except*
2-20: 2x6 SPF 2100F 1.8E, 14-17: 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x4 SPF No.2 6-11-3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-10-14 max.): 6-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-19, 5-18, 8-15

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=155(LC 12)
Max Uplift 2=-269(LC 12), 11=-271(LC 13)
Max Grav 2=2493(LC 1), 11=2506(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7040/807, 3-5=-4814/513, 5-6=-3591/448, 6-7=-3031/443, 7-8=-3217/427, 8-10=-3935/435, 10-11=-2031/202
BOT CHORD 2-20=-824/6278, 19-20=-809/6190, 18-19=-447/4236, 13-15=-247/3443, 11-13=-324/3699
WEBS 3-20=-96/1092, 3-19=-2002/371, 5-19=-18/683, 5-18=-1417/291, 7-15=-81/471, 6-18=-71/925, 15-18=-133/2702, 7-18=-152/652, 8-15=-925/227, 8-13=-7/438, 10-13=-333/150

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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 18-7-4, Exterior(2R) 18-7-4 to 24-9-15, Interior(1) 24-9-15 to 25-4-12, Exterior(2R) 25-4-12 to 31-7-7, Interior(1) 31-7-7 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) The Fabrication Tolerance at joint 20 = 0%
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 2 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 269 lb uplift at joint 2 and 271 lb uplift at joint 11.
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.

Continued on page 2

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

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

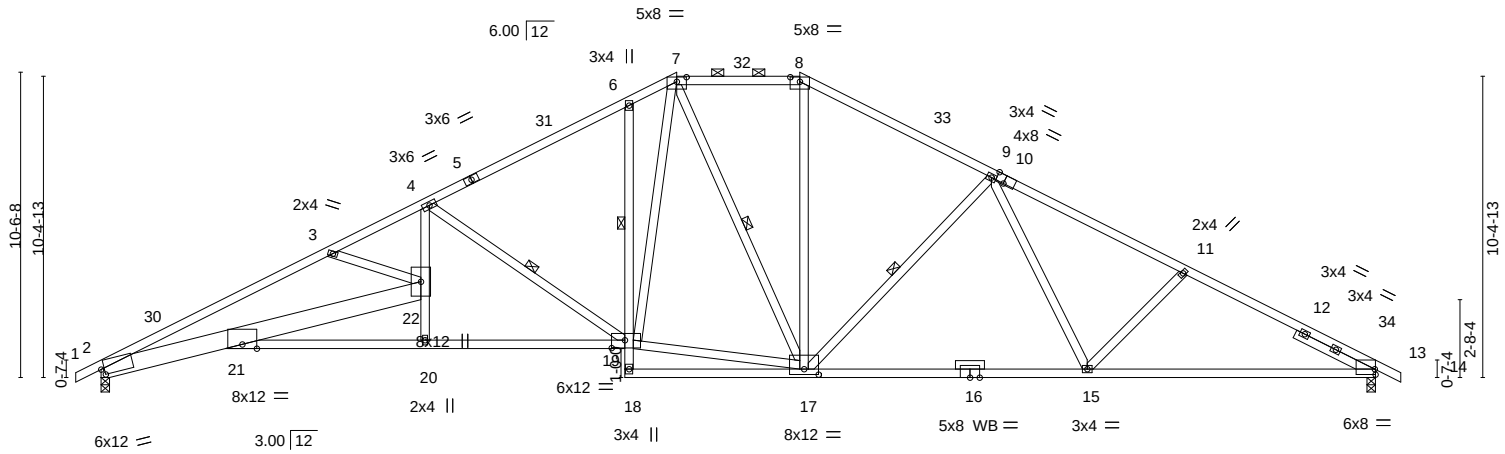
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A11	Hip	1	1	I48255558
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:08:59 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-IYQrkaUPzerek7s1hvwewLCrviS2gZhd1KHGtNyVqxo

-0-10-8	4-3-8	8-0-0	11-2-4	18-1-0	19-10-8	24-1-8	30-8-14	37-4-5	44-0-0	44-10-8
0-10-8	4-3-8	3-8-8	3-2-4	6-10-12	1-9-8	4-3-0	6-7-6	6-7-6	6-7-11	0-10-8

Scale = 1:79.6



4-3-8	11-2-4	18-1-0	19-10-8	24-1-8	34-0-9	44-0-0
4-3-8	6-10-12	6-10-12	1-9-8	4-3-0	9-11-1	9-11-7

Plate Offsets (X,Y)-- [2:0-1-6,0-2-7], [7:0-4-0,0-1-15], [8:0-4-0,0-1-15], [10:0-3-8,Edge], [13:Edge,0-2-4], [17:0-6-0,0-2-4], [19:0-5-8,0-3-4]

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	0.97	Vert(LL)	-0.39	21-22	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.90	21-22	>584	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.42	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 242 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	1-5,10-14: 2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SPF No.2 *Except*
	2-22: 2x8 SP 2400F 2.0E, 19-21: 2x4 SPF 1650F 1.5E
	13-16: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Right 2x4 SPF No.2 3-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (3-4-11 max.): 7-8.
BOT CHORD	Rigid ceiling directly applied. Except:
	1 Row at midpt 6-19
WEBS	1 Row at midpt 4-19, 7-17, 9-17

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=164(LC 12)
Max Uplift 2=-269(LC 12), 13=-270(LC 13)
Max Grav 2=2490(LC 1), 13=2504(LC 1)

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

TOP CHORD	2-3=-5492/650, 3-4=-4808/531, 4-6=-3586/419, 6-7=-3446/485, 7-8=-2603/396,
	8-9=-3058/404, 9-11=-3968/444, 11-13=-4238/463
BOT CHORD	2-21=-646/4797, 21-22=-218/856, 20-21=-431/4093, 19-20=-438/4172, 6-19=-384/181,
	15-17=-207/3240, 13-15=-318/3700
WEBS	20-22=0/288, 4-22=-90/915, 4-19=-1316/264, 17-19=-129/2634, 7-19=-311/1675,
	7-17=-599/139, 8-17=-83/797, 9-17=-933/260, 9-15=-53/537, 11-15=-391/185,
	3-22=-655/204

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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 19-10-8, Exterior(2E) 19-10-8 to 24-1-8, Exterior(2R) 24-1-8 to 28-4-7, Interior(1) 28-4-7 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 2 and 270 lb uplift at joint 13.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 8,2021

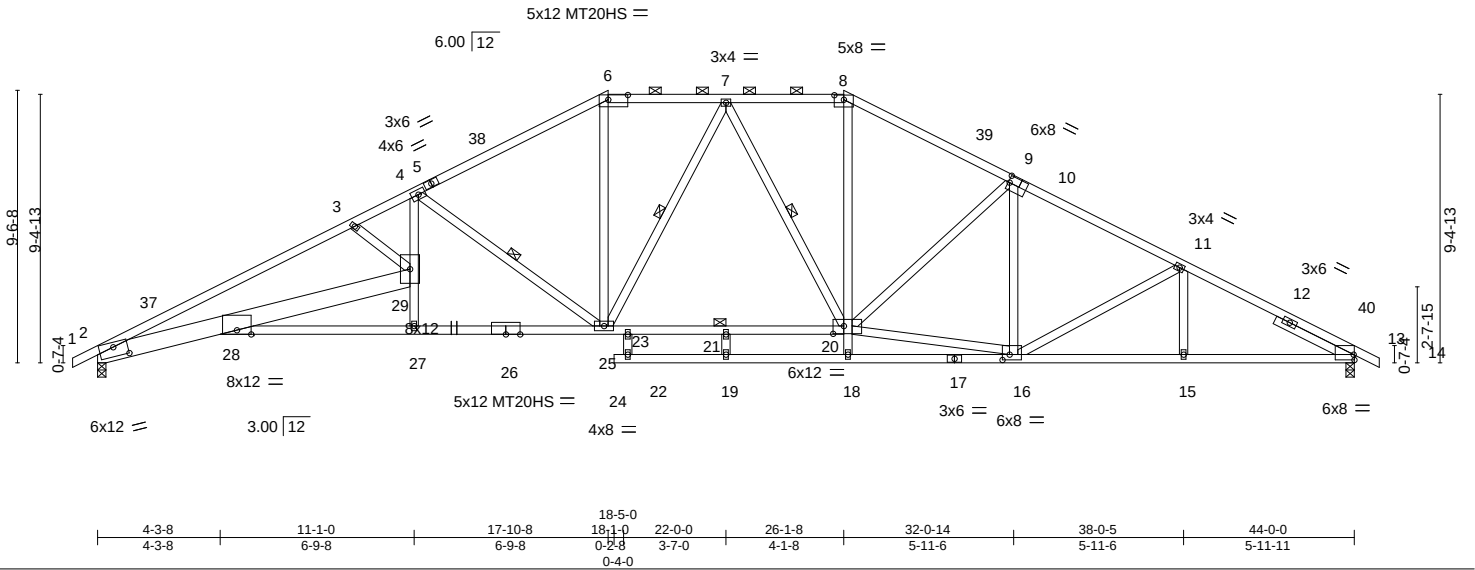
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A12	Hip	1	1	I48255559
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:01 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-ExYc9GVfVF6MzR0PpKz6?mHDqV847ROvUemNxGyVqxm

-0-10-8 4-3-8 9-0-0 11-1-0 17-10-8 22-0-0 26-1-8 32-0-14 38-0-5 44-0-0 44-10-8
0-10-8 4-3-8 4-8-8 2-1-0 6-9-8 4-1-8 4-1-8 5-11-6 5-11-6 5-11-11 0-10-8

Scale = 1:80.7



4-3-8 11-1-0 17-10-8 18-5-0 18-11-0 22-0-0 26-1-8 32-0-14 38-0-5 44-0-0
4-3-8 6-9-8 6-9-8 0-2-8 0-4-0 3-7-0 4-1-8 5-11-6 5-11-6 5-11-11

Plate Offsets (X,Y)-- [2:0-6-0,0-4-0], [6:0-8-4,0-2-0], [8:0-4-0,0-1-15], [10:0-0-8,0-3-0], [13:Edge,0-2-4], [16:0-3-0,0-2-4], [20:0-4-8,0-3-4]

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	0.88	Vert(LL)	-0.38	28-29	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.87	28-29	>605	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.43	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 256 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except*
	6-8: 2x4 SPF No.2, 1-5,10-14: 2x4 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	2-29: 2x8 SP 2400F 2.0E, 26-28: 2x4 SPF 1650F 1.5E
	13-17: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2
SLIDER	Right 2x4 SPF No.2 3-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (2-10-5 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied. Except:
	10-0-0 oc bracing: 27-28, 23-25
WEBS	1 Row at midpt 4-25, 7-25, 7-20
JOINTS	1 Brace at Jt(s): 21

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=147(LC 12)
Max Uplift 2=-270(LC 12), 13=-272(LC 13)
Max Grav 2=2496(LC 1), 13=2508(LC 1)

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

TOP CHORD	2-3=-5397/615, 3-4=-4869/556, 4-6=-3681/413, 6-7=-3170/405, 7-8=-3153/406,
	8-9=-3629/416, 9-11=-3864/426, 11-13=-4233/451
BOT CHORD	2-28=-587/4700, 28-29=-169/749, 27-28=-419/4103, 25-27=-429/4200, 23-25=-181/3261,
	21-23=-181/3261, 20-21=-181/3261, 15-16=-314/3695, 13-15=-314/3695
WEBS	4-29=-132/1044, 18-20=0/278, 8-20=-99/1132, 16-20=-223/3365, 11-16=-386/140,
	6-25=-82/1065, 4-25=-1254/267, 9-20=-404/196, 7-25=-431/137, 7-20=-457/134,
	3-29=-624/180

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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 17-10-8, Exterior(2R) 17-10-8 to 22-0-0, Interior(1) 22-0-0 to 26-1-8, Exterior(2R) 26-1-8 to 30-4-7, Interior(1) 30-4-7 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) The Fabrication Tolerance at joint 6 = 8%
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 270 lb uplift at joint 2 and 272 lb uplift at joint 13.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

October 8,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A13	Hip	1	1	I48255560

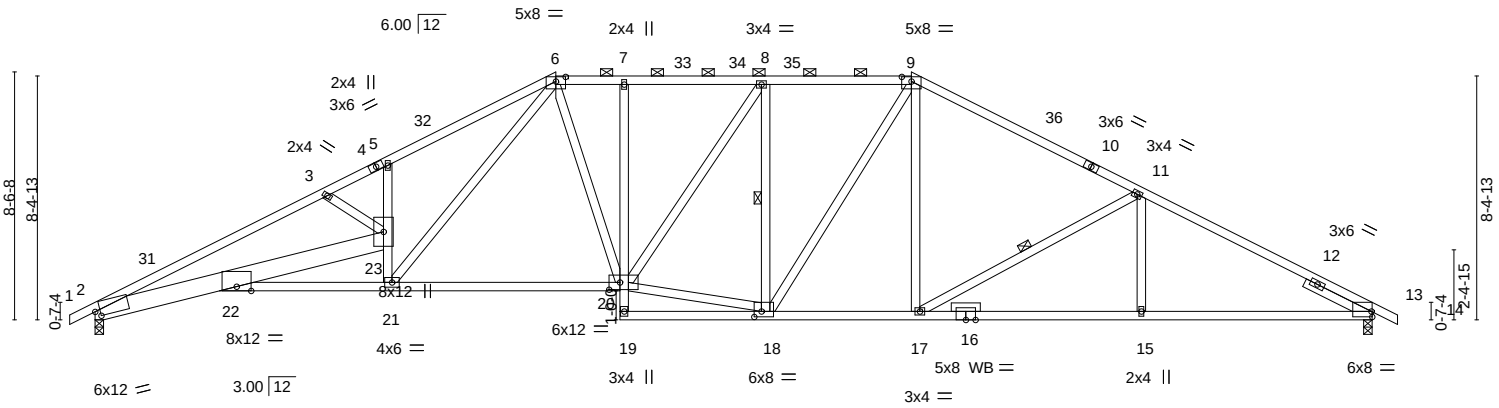
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:03 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-AJfMayXw0tM3ClAowl?a4BNbbJqfbKRCyyFT08yVqxk

-0-10-8	4-3-8	8-0-0	10-1-0	15-10-8	18-1-0	23-1-4	28-1-8	36-0-9	44-0-0	44-10-8
0-10-8	4-3-8	3-8-8	2-1-0	5-9-8	2-2-8	5-0-4	5-0-4	7-11-1	7-11-7	0-10-8

Scale = 1:79.4



4-3-8	10-1-0	15-10-8	18-1-0	23-1-4	28-1-8	36-0-9	44-0-0
4-3-8	5-9-8	5-9-8	2-2-8	5-0-4	5-0-4	7-11-1	7-11-7

Plate Offsets (X,Y)-- [2:0-2-2,0-2-3], [6:0-4-0,0-1-15], [9:0-4-0,0-1-15], [13:Edge,0-2-4], [18:0-3-0,0-2-4], [20:0-4-8,0-3-0]

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	0.73	Vert(LL)	-0.34	22-23	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.76	20-21	>688	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.39	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 248 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP 2400F 2.0E *Except*
	6-9: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	2-23: 2x8 SP 2400F 2.0E, 20-22: 2x4 SPF 1650F 1.5E
	13-16: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (2-7-12 max.): 6-9.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-18, 11-17

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=131(LC 12)
Max Uplift 2=-275(LC 12), 13=-277(LC 13)
Max Grav 2=2490(LC 1), 13=2504(LC 1)

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

TOP CHORD	2-3=-5589/648, 3-5=-5059/577, 5-6=-4931/645, 6-7=-3623/430, 7-8=-3615/431,
	8-9=-3268/419, 9-11=-3535/402, 11-13=-4244/460
BOT CHORD	2-22=-611/4894, 22-23=-181/803, 21-22=-435/4246, 20-21=-270/3419, 7-20=-379/101,
	17-18=-153/3018, 15-17=-305/3686, 13-15=-305/3686
WEBS	21-23=-1055/290, 18-20=-160/3218, 8-20=-133/666, 8-18=-1056/179, 9-18=-130/667,
	9-17=-55/539, 11-17=-777/229, 11-15=0/275, 6-21=-280/1494, 6-20=-121/831,
	3-23=-616/180

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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 15-10-8, Exterior(2R) 15-10-8 to 20-1-7, Interior(1) 20-1-7 to 28-1-8, Exterior(2R) 28-1-8 to 32-4-7, Interior(1) 32-4-7 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 275 lb uplift at joint 2 and 277 lb uplift at joint 13.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 8,2021

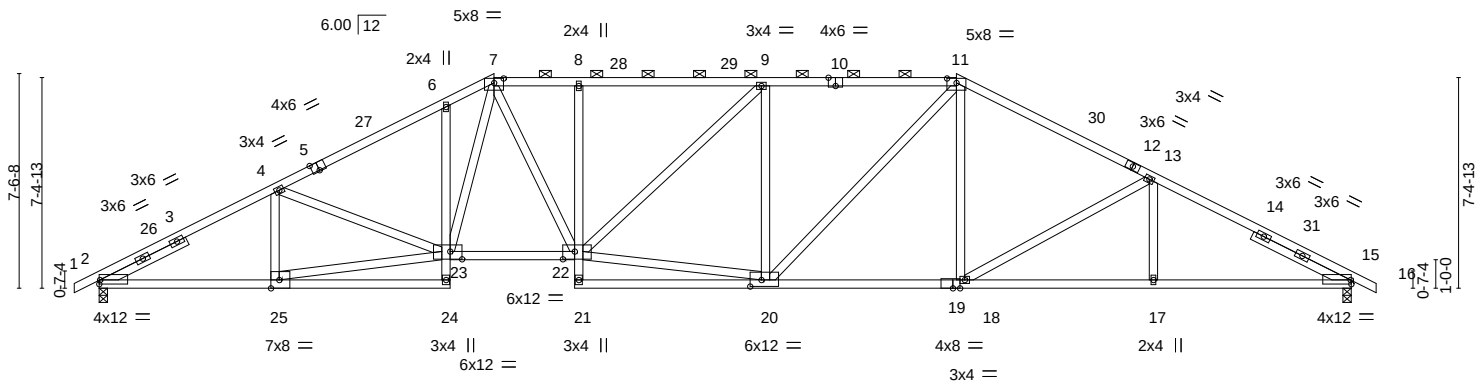
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A14	Hip	1	1	I48255561
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:05 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-7in7?dYAYUcnS2KB2A12AcSui7XR3CVVPFka41yVqxi

-0-10-8	6-2-3	12-4-0	13-10-8	16-8-8	23-5-0	30-1-8	37-0-9	44-0-0	44-10-8
0-10-8	6-2-3	6-1-13	1-6-8	2-10-0	6-8-8	6-8-8	6-11-1	6-11-7	0-10-8

Scale = 1:81.0



6-2-3	12-4-0	13-10-8	16-8-8	23-5-0	30-1-8	37-0-9	44-0-0
6-2-3	6-1-13	1-6-8	2-10-0	6-8-8	6-8-8	6-11-1	6-11-7

Plate Offsets (X,Y)-- [2:Edge,0-1-12], [5:0-3-0,Edge], [7:0-4-0,0-1-15], [10:0-3-0,Edge], [11:0-4-0,0-1-15], [15:Edge,0-1-12], [19:0-3-0,0-0-0], [20:0-4-12,0-2-12], [22:0-5-0,0-3-4], [23:0-5-0,0-3-4], [25:0-3-8,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	0.95	Vert(LL)	-0.26	22-23	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.60	22-23	>880	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.25	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 231 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 5-7,11-12: 2x4 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-24,15-19: 2x4 SP 2400F 2.0E, 22-23: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 3-4-5, Right 2x4 SPF No.2 3-9-8

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 7-11.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 15=0-3-8
Max Horz 2=115(LC 16)
Max Uplift 2=-279(LC 12), 15=-279(LC 13)
Max Grav 2=2496(LC 1), 15=2496(LC 1)

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

TOP CHORD	2-4=-4361/462, 4-6=-4455/500, 6-7=-4413/572, 7-8=-4082/474, 8-9=-4066/474, 9-11=-3739/440, 11-13=-3701/420, 13-15=-4342/465
BOT CHORD	2-25=-436/3692, 6-23=-385/151, 22-23=-304/3648, 8-22=-541/147, 18-20=-175/3192, 17-18=-317/3699, 15-17=-317/3699
WEBS	4-25=-500/128, 23-25=-425/3530, 4-23=-70/399, 20-22=-258/3581, 9-22=-148/526, 9-20=-1058/224, 11-20=-169/956, 11-18=-36/477, 13-18=-589/189, 13-17=0/263, 7-23=-218/1038, 7-22=-172/1092

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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 13-10-8, Exterior(2R) 13-10-8 to 18-1-7, Interior(1) 18-1-7 to 30-1-8, Exterior(2R) 30-1-8 to 34-4-7, Interior(1) 34-4-7 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) 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 279 lb uplift at joint 2 and 279 lb uplift at joint 15.
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.

October 8,2021

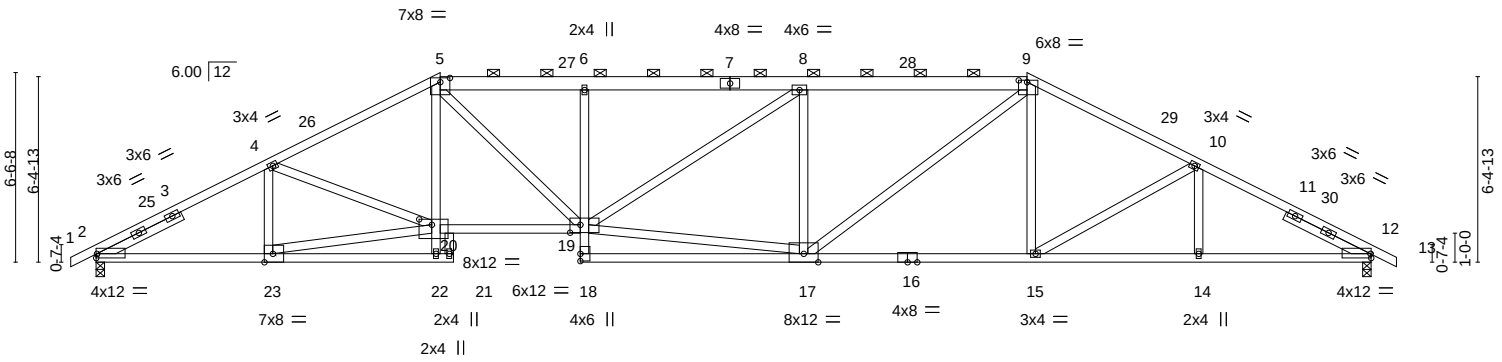
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A15	Hip	1	1	I48255562
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:06 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-buLVCzZoJoke3CvNctZHip?69WsJofNfevT7cTyVqxh

-0-10-8	5-11-7	11-10-8	12-4-0	16-8-8	24-5-0	32-1-8	38-0-9	44-0-0	44-10-8
0-10-8	5-11-7	5-11-1	0-5-8	4-4-8	7-8-8	7-8-8	5-11-1	5-11-7	0-10-8

Scale = 1:79.5



5-11-7	11-10-8	12-4-0	16-8-8	24-5-0	32-1-8	38-0-9	44-0-0
5-11-7	5-11-1	0-5-8	4-4-8	7-8-8	7-8-8	5-11-1	5-11-7

Plate Offsets (X,Y)-- [2:Edge,0-1-12], [5:0-4-0,0-1-12], [9:0-3-8,0-0-12], [12:Edge,0-1-12], [19:0-4-4,0-3-4], [23:0-3-8,Edge], [24:0-5-4,0-2-4]

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	0.71	Vert(LL)	-0.28	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.64	17-18	>818	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.26	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 238 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP 2400F 2.0E *Except* 5-7,7-9: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 2-21,12-16: 2x4 SP 2400F 2.0E, 19-20: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2 *Except* 17-19: 2x4 SPF 1650F 1.5E
SLIDER	Left 2x4 SPF No.2 3-2-12, Right 2x4 SPF No.2 3-2-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-9-14 oc purlins, except 2-0-0 oc purlins (2-10-9 max.): 5-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 15-17.

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=98(LC 12)
Max Uplift 2=-277(LC 12), 12=-281(LC 13)
Max Grav 2=2505(LC 1), 12=2499(LC 1)

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

TOP CHORD	2-4=-4396/461, 4-5=-4639/503, 5-6=-4988/529, 6-8=-4953/526, 8-9=-4409/478, 9-10=-3880/442, 10-12=-4375/472
BOT CHORD	2-23=-421/3724, 19-20=-357/4081, 6-19=-657/171, 17-18=-16/274, 15-17=-221/3413, 14-15=-333/3705, 12-14=-333/3705
WEBS	4-23=-542/131, 5-19=-233/1420, 17-19=-378/4165, 8-19=-182/725, 8-17=-1226/265, 9-17=-229/1400, 9-15=-16/398, 10-15=-344/146, 5-20=-58/648, 20-23=-418/3689, 4-20=-100/565

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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 11-10-8, Exterior(2R) 11-10-8 to 16-1-7, Interior(1) 16-1-7 to 32-1-8, Exterior(2R) 32-1-8 to 36-4-7, Interior(1) 36-4-7 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) 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 277 lb uplift at joint 2 and 281 lb uplift at joint 12.
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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

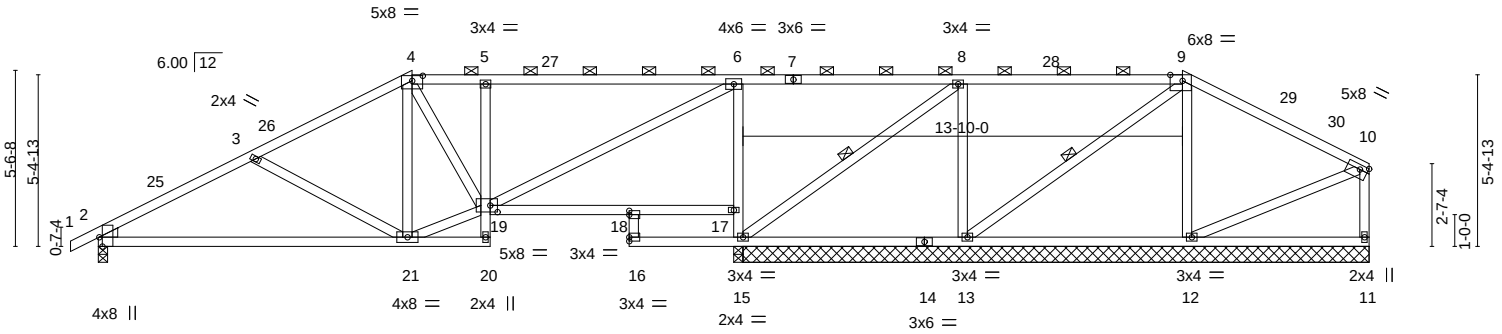
Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A16	Hip Structural Gable	1	1	I48255563
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:08 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-XHTFdfb2rP_MJW2ljIblnE4QsKdWGeLx5DyEhMyVqxf

-0-10-8	4-11-7	9-10-8	12-4-0	16-8-8	23-9-0	27-2-8	30-8-0	34-1-8	40-0-0
0-10-8	4-11-7	4-11-1	2-5-8	4-4-8	7-0-8	3-5-8	3-5-8	3-5-8	5-10-8

Scale = 1:72.5



9-10-8	12-4-0	16-8-8	20-3-8	27-2-8	34-1-8	40-0-0
9-10-8	2-5-8	4-4-8	3-7-0	6-11-0	6-11-0	5-10-8

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [4:0-4-0,0-1-15], [9:0-4-10,Edge], [10:Edge,0-1-12], [18:0-0-0,0-1-8], [19:0-2-12,0-2-8]

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	0.89	Vert(LL)	-0.14	21-24	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.30	21-24	>803	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.02	15	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 179 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-1-0 max.): 4-9.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 9-13, 8-15

REACTIONS. All bearings 19-8-8 except (jt=length) 2=0-3-8.

(lb) - Max Horz 2=125(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 12, 11 except 2=-170(LC 12), 15=-224(LC 9), 13=-138(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except 2=1089(LC 25), 12=594(LC 26), 11=308(LC 26), 15=1764(LC 25), 15=1763(LC 1), 13=733(LC 26)

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

TOP CHORD	2-3=-1589/288, 3-4=-1145/220, 4-5=-1052/258, 5-6=-1098/269, 6-8=-11/280, 10-11=-259/82
BOT CHORD	2-21=-273/1353, 5-19=-580/163, 18-19=-289/40
WEBS	3-21=-479/165, 19-21=-62/938, 4-19=-104/322, 6-19=-236/1561, 9-12=-456/121, 15-17=-1437/268, 6-17=-1412/273, 8-13=-508/183, 8-15=-265/26

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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 9-10-8, Exterior(2R) 9-10-8 to 14-1-7, Interior(1) 14-1-7 to 34-1-8, Exterior(2R) 34-1-8 to 38-4-7, Interior(1) 38-4-7 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) The Fabrication Tolerance at joint 9 = 4%
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) 12, 11 except (jt=lb) 2=170, 15=224, 13=138.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A17	Roof Special	1	1	I48255564

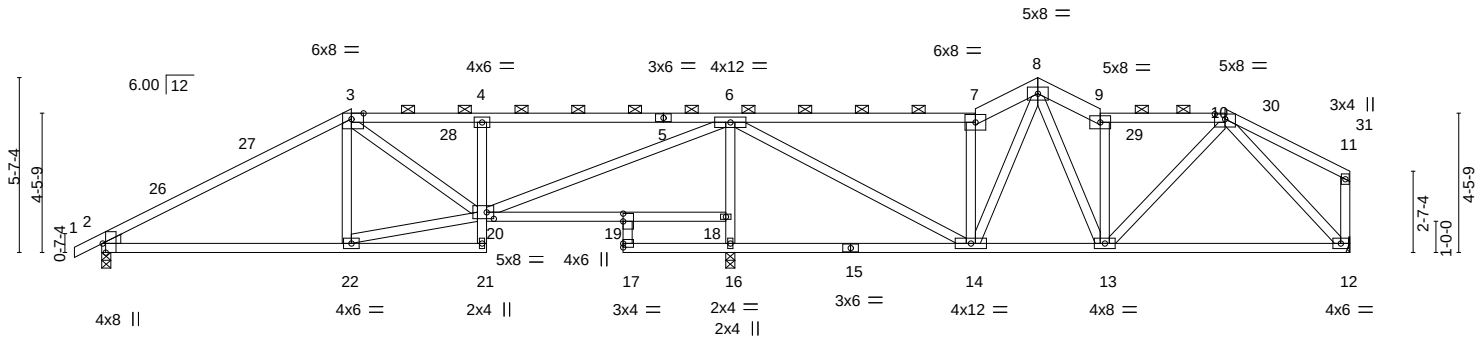
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:10 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-Tga?2LcJN0E4YpC8rjdDtf9m08JHkWQEZXRLIEyVqxd

-0-10-8	8-0-0	12-4-0	16-8-8	20-1-12	22-4-4	28-0-0	30-0-0	32-0-0	36-0-0	40-0-0
0-10-8	8-0-0	4-4-0	4-4-8	3-5-4	2-2-8	5-7-12	2-0-0	2-0-0	4-0-0	4-0-0

Scale = 1:73.8



8-0-0	12-4-0	16-8-8	20-1-12	28-0-0	32-0-0	36-0-0	40-0-0
8-0-0	4-4-0	4-4-8	3-5-4	7-10-4	4-0-0	4-0-0	4-0-0

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-4-10,Edge], [10:0-4-0,0-1-15], [19:0-3-0,0-0-0], [20:0-2-12,0-2-8]

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	0.85	Vert(LL)	-0.09	12-13	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.22	22-25	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 184 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-5,5-7: 2x4 SPF 1650F 1.5E, 7-8,8-9: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
15-17: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-0-10 max.): 3-7, 9-10.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 16=0-3-8, 12=Mechanical
Max Horz 2=127(LC 11)
Max Uplift 2=-172(LC 12), 16=-291(LC 12), 12=-122(LC 13)
Max Grav 2=1087(LC 25), 16=2407(LC 1), 12=974(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1444/243, 3-4=-1314/294, 4-6=-1385/310, 6-7=-964/213, 7-8=-1209/277, 8-9=-1241/248, 9-10=-1044/196
BOT CHORD 2-22=-201/1164, 4-20=-519/165, 19-20=-354/23, 16-17=-309/2, 14-16=-339/18, 13-14=-113/835, 12-13=-122/702
WEBS 20-22=-165/1075, 16-18=-2187/358, 6-18=-2170/362, 6-14=-154/1482, 7-14=-1014/233, 8-14=-150/469, 8-13=-107/624, 9-13=-814/160, 10-13=-33/504, 10-12=-951/160, 6-20=-276/1846

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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 30-0-0, Exterior(2E) 30-0-0 to 32-0-0, Interior(1) 32-0-0 to 36-0-0, Exterior(2R) 36-0-0 to 39-0-0, Interior(1) 39-0-0 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=172, 16=291, 12=122.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	A18	Roof Special Girder	1	1	I48255565

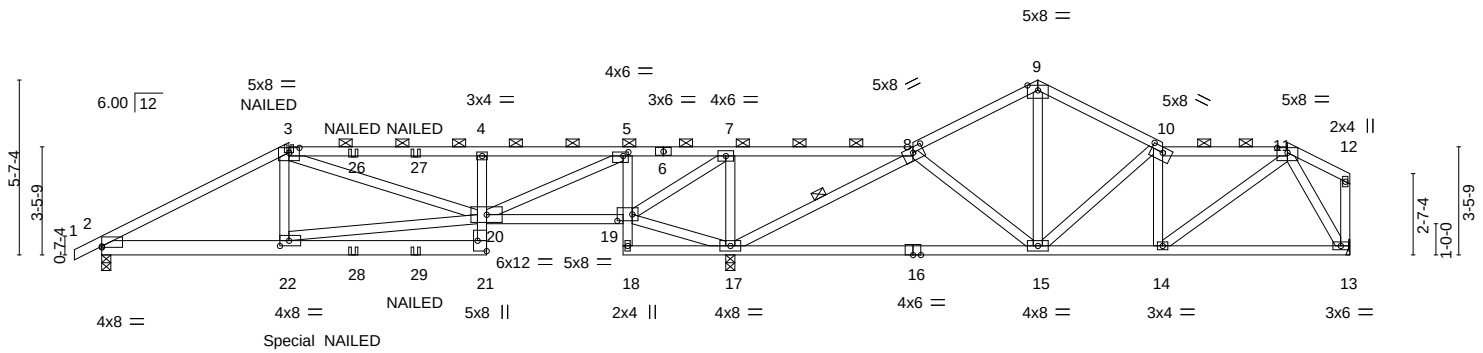
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:12 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-P2imT1eZveUon7MXy8fhy4F69x?bCQqX0rwSq7yVqxb

-0-10-8	3-0-3	6-0-0	9-2-0	12-4-0	16-8-8	20-1-12	21-4-4	26-0-0	30-0-0	34-0-0	38-0-0	40-0-0
0-10-8	3-0-3	2-11-13	3-2-0	3-2-0	4-4-8	3-5-4	1-2-8	4-7-12	4-0-0	4-0-0	4-0-0	2-0-0

Scale = 1:73.8



3-0-3	6-0-0	12-4-0	16-8-8	20-1-12	26-0-0	30-0-0	34-0-0	38-0-0	40-0-0
3-0-3	2-11-13	6-4-0	4-4-8	3-5-4	5-10-4	4-0-0	4-0-0	4-0-0	2-0-0

Plate Offsets (X,Y)-- [2:0-0-0,0-0-7], [3:0-4-0,0-1-15], [5:0-2-0,0-1-8], [8:0-4-0,0-2-0], [10:0-4-8,0-2-0], [11:0-4-0,0-1-15], [19:0-5-12,0-2-8], [21:Edge,0-3-8], [22:0-3-8,0-2-0]

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	0.81	Vert(LL)	-0.15	15-17	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.30	15-17	>780	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.72	Horz(CT)	0.04	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 186 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except* 3-6,6-8: 2x4 SPF 1650F 1.5E

BOT CHORD 2x4 SPF No.2 *Except* 2-21: 2x6 SPF No.2, 16-18: 2x4 SP 2400F 2.0E

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-1 max.): 3-8, 10-11.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 8-17

REACTIONS. (size) 2=0-3-8, 13=Mechanical, 17=0-3-8
Max Horz 2=126(LC 7)
Max Uplift 2=-326(LC 8), 13=-183(LC 30), 17=-525(LC 8)
Max Grav 2=1594(LC 21), 13=738(LC 1), 17=3270(LC 1)

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

TOP CHORD 2-3=-2709/590, 3-4=-2180/506, 4-5=-2160/497, 5-7=-74/600, 7-8=-366/2003, 8-9=-707/275, 9-10=-695/258, 10-11=-876/270

BOT CHORD 2-22=-537/2326, 21-22=-90/387, 4-20=-649/180, 19-20=-555/106, 5-19=-1479/329, 15-17=-382/450, 14-15=-262/884, 13-14=-122/383

WEBS 3-22=-119/609, 5-20=-612/2916, 8-15=-77/639, 9-15=-166/289, 10-15=-510/114, 10-14=-325/149, 7-17=-1414/327, 17-19=-1989/415, 7-19=-355/1691, 8-17=-2170/302, 11-14=-185/654, 11-13=-713/224, 20-22=-446/1932, 3-20=-276/151

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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=326, 13=183, 17=525.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 633 lb down and 212 lb up at 6-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

October 8,2021

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=-90, 3-8=-90, 8-9=-90, 9-10=-90, 10-11=-90, 11-12=-90, 21-23=-20, 19-20=-20, 13-18=-20
   Concentrated Loads (lb)
   Vert: 3=-73(F) 22=-633(F) 26=-73(F) 27=-73(F) 28=-138(F) 29=-138(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	B1	Common Supported Gable	1	1	I48255566

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:29 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-QJEB1rrDvsdNKk9oSCTg8gSCToxmhHJ1w_YrweyVqxK

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

Scale = 1:37.4

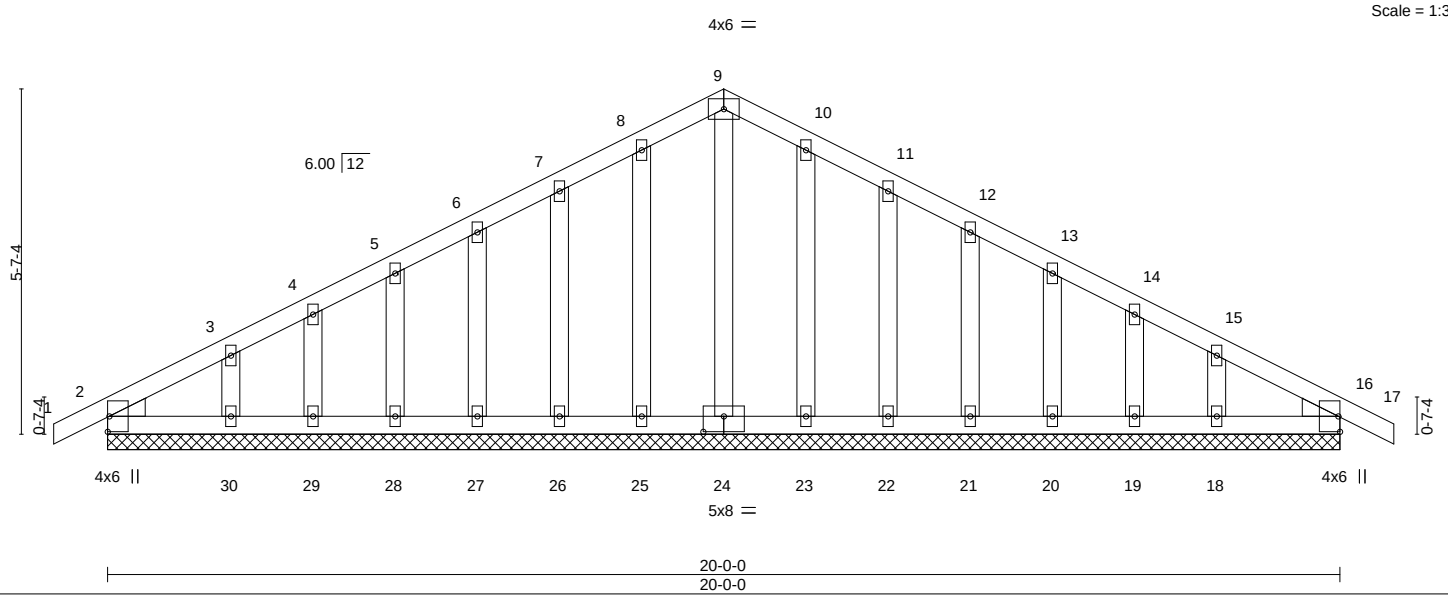


Plate Offsets (X,Y)-- [24:0-4-0,0-3-0]

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	0.06	Vert(LL)	-0.00	16	n/r	120	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	16	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 95 lb	FT = 20%

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

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

REACTIONS. All bearings 20-0-0.
(lb) - Max Horz 2=86(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16
Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16

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) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 16.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	B2	Common	3	1	I48255567
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:31 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-MiMySWsUQTu5Z2JAZdV8D5XU2bRs975KOI1y?XyVqxI

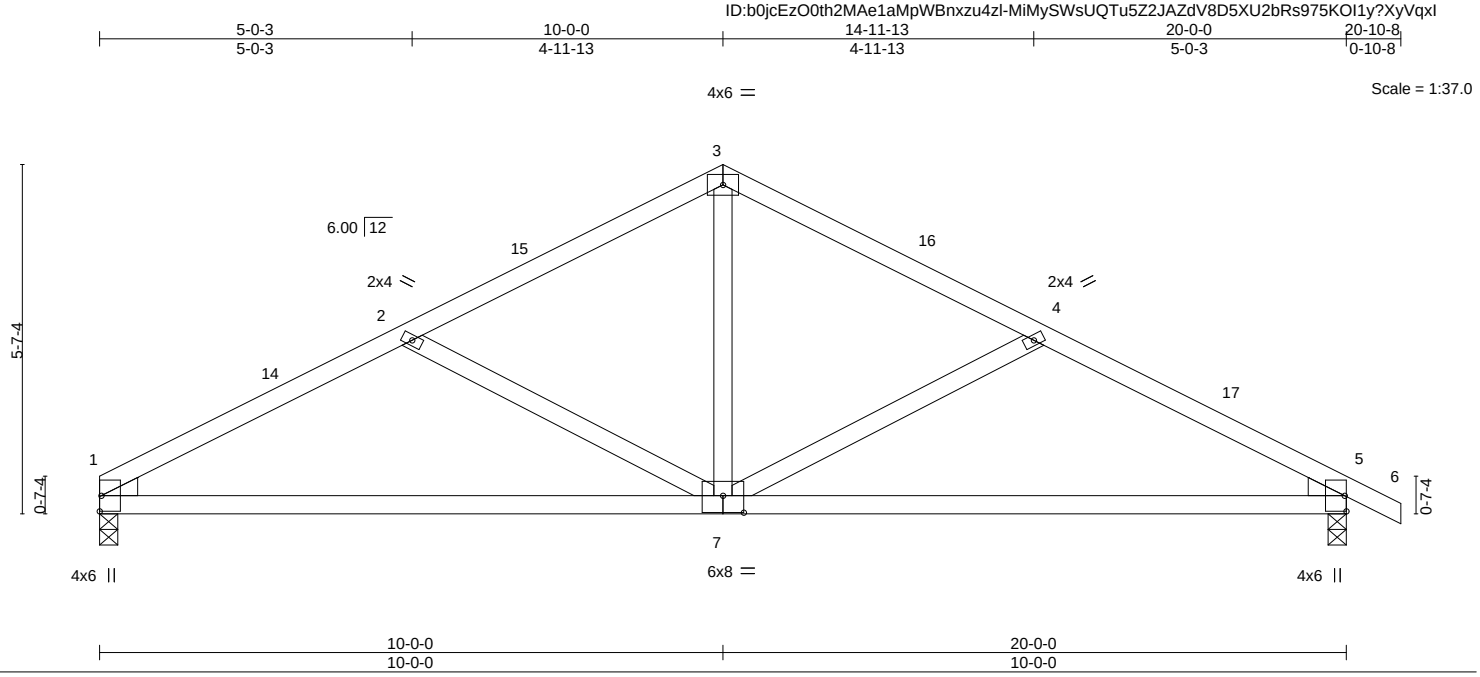


Plate Offsets (X,Y)-- [7:0-4-0,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.13	7-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.28	7-10	>862	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 69 lb	FT = 20%

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

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

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-93(LC 17)
Max Uplift 1=-112(LC 12), 5=-129(LC 13)
Max Grav 1=1098(LC 1), 5=1180(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1770/306, 2-3=-1323/242, 3-4=-1323/240, 4-5=-1765/301
BOT CHORD 1-7=-197/1511, 5-7=-196/1504
WEBS 3-7=-64/638, 4-7=-499/178, 2-7=-507/179

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) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=112, 5=129.
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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	B3	Common	5	1	I48255568
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:32 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-quwKfst6Bn0yBCuN7L0NmI4fo?n3uaLUcymWXzyVqxH

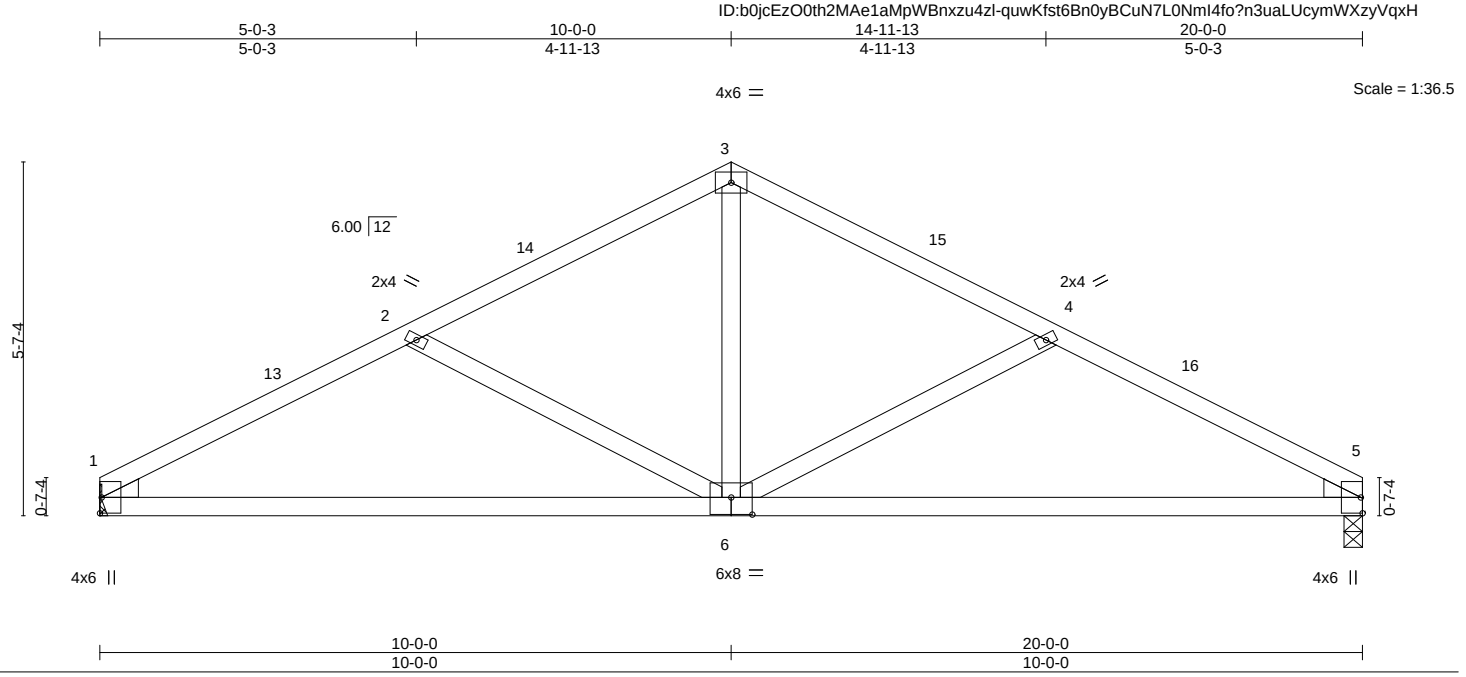


Plate Offsets (X,Y)-- [6:0-4-0,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.13	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.28	6-9	>866	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 68 lb	FT = 20%

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

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

REACTIONS. (size) 1=Mechanical, 5=0-3-8
Max Horz 1=79(LC 16)
Max Uplift 1=-112(LC 12), 5=-112(LC 13)
Max Grav 1=1100(LC 1), 5=1100(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1774/307, 2-3=-1327/243, 3-4=-1327/243, 4-5=-1774/307
BOT CHORD 1-6=-216/1514, 5-6=-211/1514
WEBS 3-6=-64/640, 4-6=-507/180, 2-6=-507/179

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) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-0-0 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) 1=112, 5=112.
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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

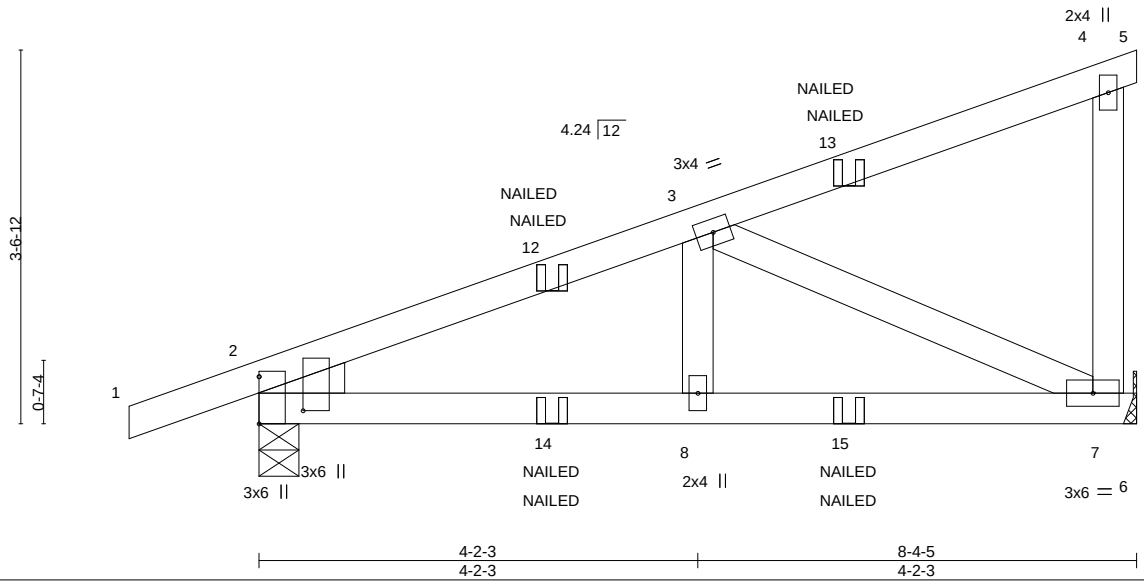
Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	CJ1	Diagonal Hip Girder	4	1	I48255569

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:33 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-I5TitCuky58ppMTZh2YcIWcqtPDMd2adrcW33PyVqxG

-1-2-14 4-2-3 8-4-5
1-2-14 4-2-3 4-2-3

Scale = 1:21.9



4-2-3 8-4-5
4-2-3 4-2-3

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.01	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 32 lb	FT = 20%

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

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

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=134(LC 7)
Max Uplift 7=-126(LC 8), 2=-134(LC 4)
Max Grav 7=523(LC 1), 2=601(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-740/148
BOT CHORD 2-8=-172/655, 7-8=-172/655
WEBS 3-7=-720/202

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) except (jt=lb) 7=126, 2=134.
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=-90, 4-5=-40, 6-9=-20
Concentrated Loads (lb)
Vert: 13=-7(F=-3, B=-3) 14=-12(F=-6, B=-6) 15=-88(F=-44, B=-44)

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	CJ2	Diagonal Hip Girder	1	1	I48255570

Job Reference (optional)

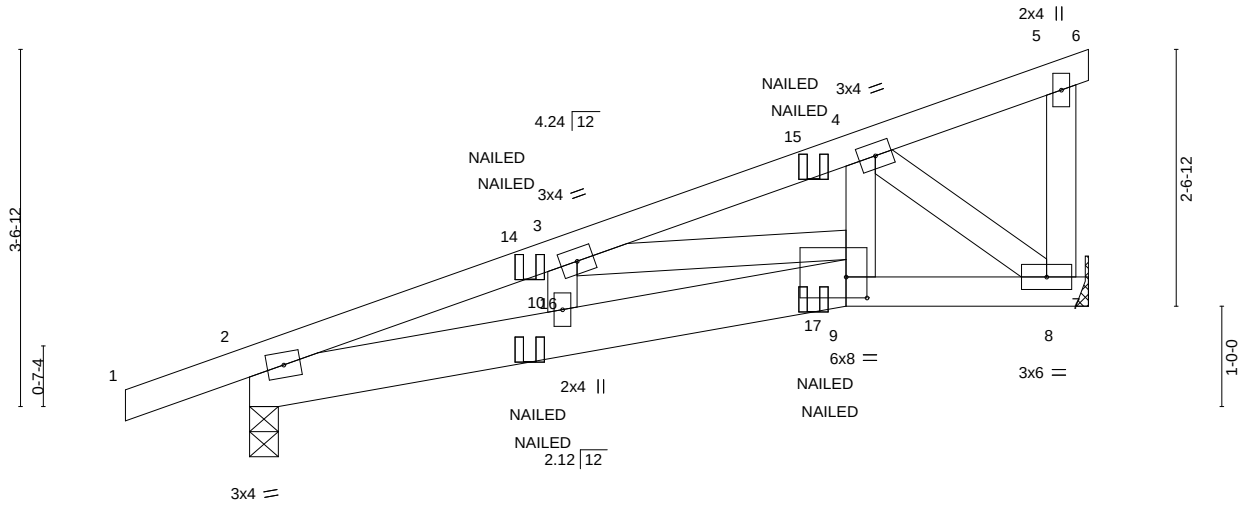
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:34 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-mH144YvMjOGgQW2lFm3rrj91rpaLMXim4GFccryVqxF

-1-2-14 3-1-7 5-11-5 8-4-5

1-2-14 3-1-7 2-9-15 2-5-0

Scale = 1:23.0



3-1-7 5-11-5 8-4-5

3-1-7 2-9-15 2-5-0

Plate Offsets (X,Y)-- [9:0-2-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.02	10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.04	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 35 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except*

2-9: 2x6 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-6 oc purlins, except end verticals.

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

REACTIONS. (size) 8=Mechanical, 2=0-3-7

Max Horz 2=116(LC 5)

Max Uplift 8=-130(LC 8), 2=-138(LC 4)

Max Grav 8=525(LC 1), 2=604(LC 1)

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

TOP CHORD 2-3=-1089/245, 3-4=-702/159

BOT CHORD 2-10=-273/994, 9-10=-278/1021, 8-9=-170/586

WEBS 3-9=-368/112, 4-9=-79/380, 4-8=-725/212

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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=130, 2=138.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-5=-90, 5-6=-40, 9-11=-20, 7-9=-20

Concentrated Loads (lb)

Vert: 15=-3(F=-2, B=-2) 16=-15(F=-8, B=-8) 17=-93(F=-47, B=-47)

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

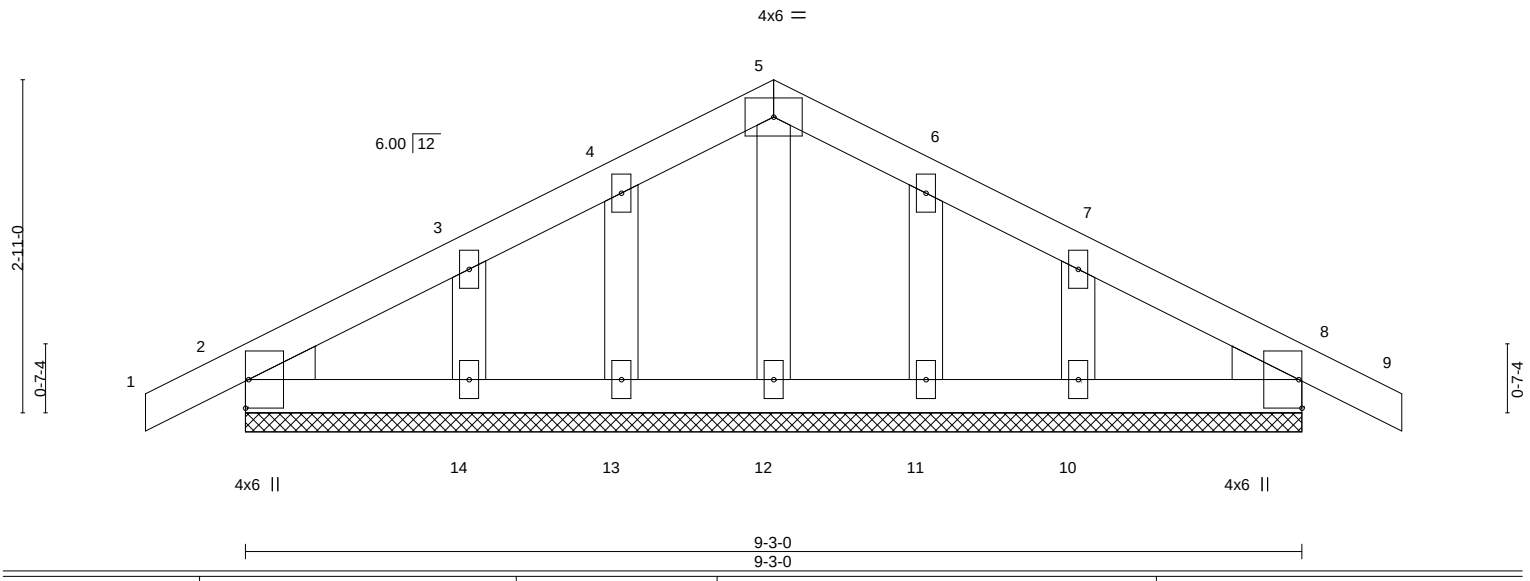
Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	D1	Common Supported Gable	1	1	I48255571

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:35 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-ETbSIuw_UiOX2fdyoTa4OxiEyD_B5?LwIw?A8IyVqxE

-0-10-8 | 4-7-8 | 9-3-0 | 10-1-8
0-10-8 | 4-7-8 | 4-7-8 | 0-10-8

Scale = 1:20.2



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	8	n/r	120	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	9	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 35 lb	FT = 20%

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

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

REACTIONS. All bearings 9-3-0.
(lb) - Max Horz 2=-44(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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) -0-10-8 to 1-11-8, Exterior(2N) 1-11-8 to 4-7-8, Corner(3R) 4-7-8 to 7-7-8, Exterior(2N) 7-7-8 to 10-1-8 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, 8, 13, 14, 11, 10.
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.

October 8,2021

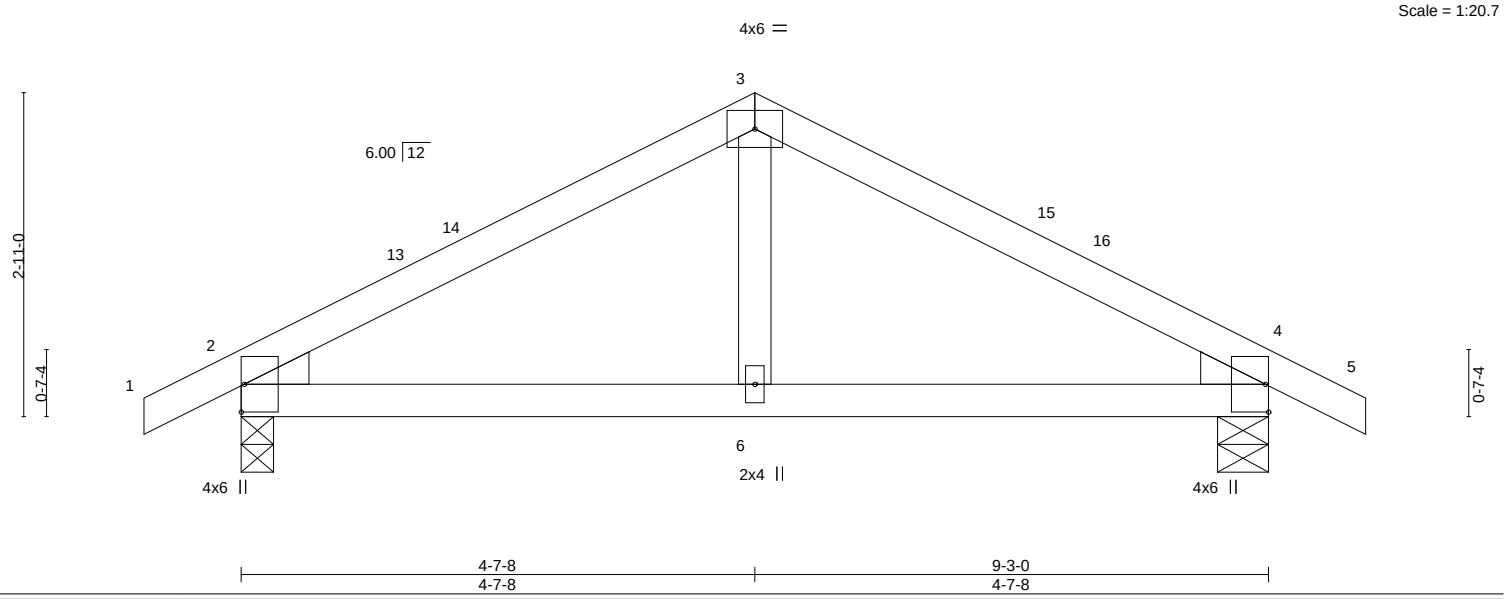
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	D2	Common	4	1	I48255572
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:36 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-jg9rVEwcF0WOgpB8MB5Jw8EMEcHaqSG3XakjgkyVqxD

-0-10-8 / 0-10-8 | 4-7-8 / 4-7-8 | 9-3-0 / 4-7-8 | 10-1-8 / 0-10-8

Scale = 1:20.7



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	0.22	Vert(LL)	-0.02	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 29 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 4=0-5-8
Max Horz 2=-44(LC 13)
Max Uplift 2=-69(LC 12), 4=-69(LC 13)
Max Grav 2=587(LC 1), 4=587(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-637/220, 3-4=-637/220
BOT CHORD 2-6=-93/500, 4-6=-93/500

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

October 8,2021

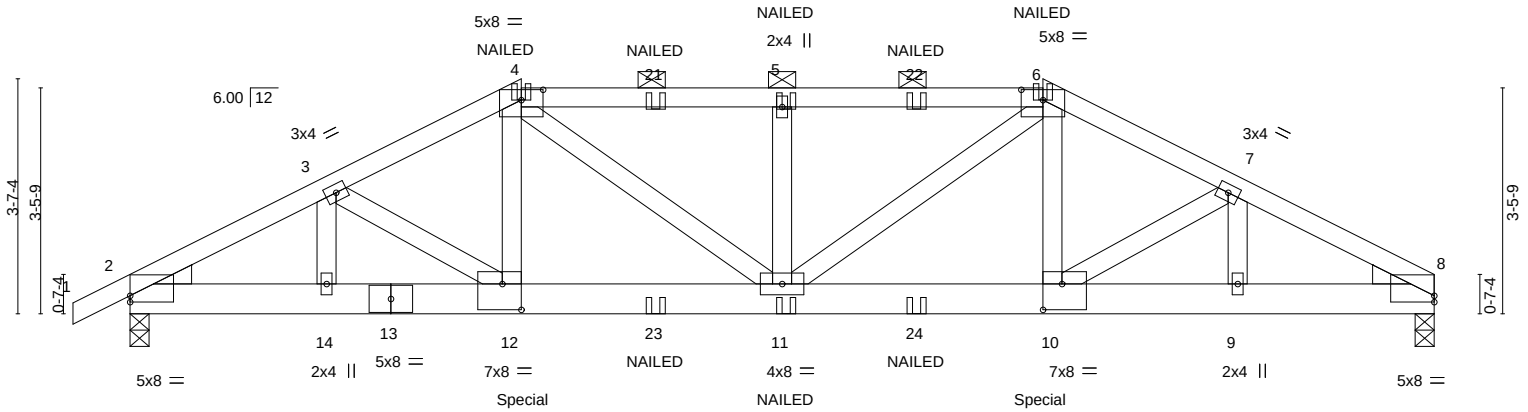
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	E1	Hip Girder	1	1	I48255573
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:38 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-f2Hbwwytndm6v7LWUb7n?ZJYAQmBII9M?uDqldyVqxB

-0-10-8	3-0-3	6-0-0	10-0-0	14-0-0	16-11-13	20-0-0
0-10-8	3-0-3	2-11-13	4-0-0	4-0-0	2-11-13	3-0-3

Scale = 1:35.3



3-0-3	6-0-0	10-0-0	14-0-0	16-11-13	20-0-0
3-0-3	2-11-13	4-0-0	4-0-0	2-11-13	3-0-3

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

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	0.83	Vert(LL)	-0.11	11	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.24	11	>989	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 94 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-2 oc purlins, except 2-0-0 oc purlins (2-4-4 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 8-8-7 oc bracing.

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=59(LC 33)
Max Uplift 8=-431(LC 9), 2=-448(LC 8)
Max Grav 8=2121(LC 1), 2=2200(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3672/768, 3-4=-3865/855, 4-5=-4051/885, 5-6=-4051/885, 6-7=-3876/857, 7-8=-3696/774
BOT CHORD 2-14=-691/3213, 12-14=-691/3213, 11-12=-722/3423, 10-11=-679/3432, 9-10=-651/3235, 8-9=-651/3235
WEBS 3-14=-355/105, 3-12=-223/415, 4-12=-184/785, 4-11=-200/859, 5-11=-657/171, 6-11=-197/849, 6-10=-187/795, 7-10=-230/410, 7-9=-344/102

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) 8=431, 2=448.
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) 633 lb down and 212 lb up at 6-0-0, and 633 lb down and 212 lb up at 13-11-4 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

October 8,2021

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=-90, 4-6=-90, 6-8=-90, 15-18=-20
   Concentrated Loads (lb)
   Vert: 4=-73(F) 6=-73(F) 12=-633(F) 11=-138(F) 5=-73(F) 10=-633(F) 21=-73(F) 22=-73(F) 23=-138(F) 24=-138(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	E2	Hip	1	1	I48255574
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:39 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-7Frz7FzVYwuyXHwj1Je0YnsiwqCZ1nxVDYzNH3yVqxA

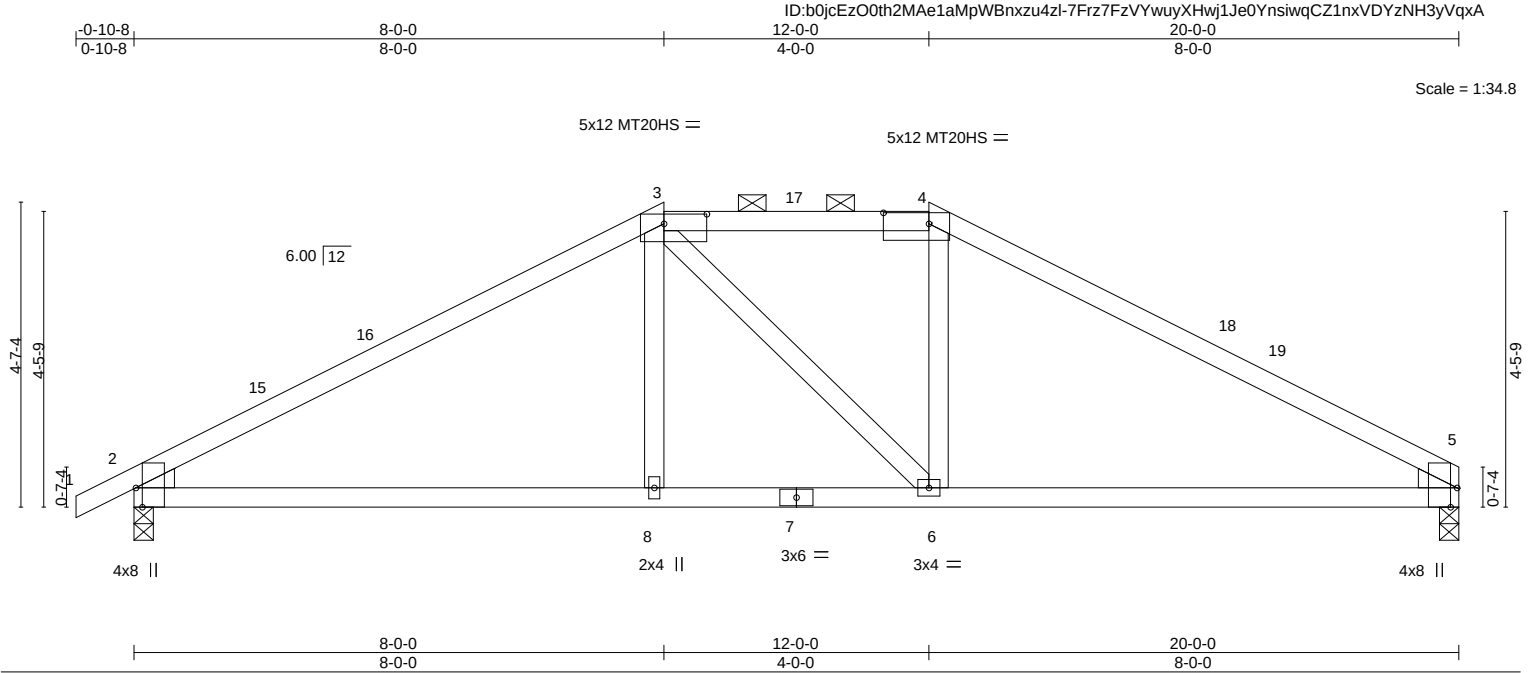


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-7-12,0-1-12], [4:0-8-4,0-2-0], [5:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	0.09	6-14	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.22	6-14	>999	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 66 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-7-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=76(LC 16)
Max Uplift 2=-133(LC 12), 5=-116(LC 13)
Max Grav 2=1180(LC 1), 5=1098(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1629/234, 3-4=-1328/257, 4-5=-1633/231
BOT CHORD 2-8=-131/1328, 6-8=-132/1323, 5-6=-122/1333

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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2E) 8-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-2-15, Interior(1) 16-2-15 to 20-0-0 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) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) The Fabrication Tolerance at joint 4 = 4%, joint 3 = 12%
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=133, 5=116.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	E3	HIP GIRDER	1	2	I48255575

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:41 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-3dykYx_l4Y8gma459khUdCx5wdqrVW5ohsSUMxyVqx8

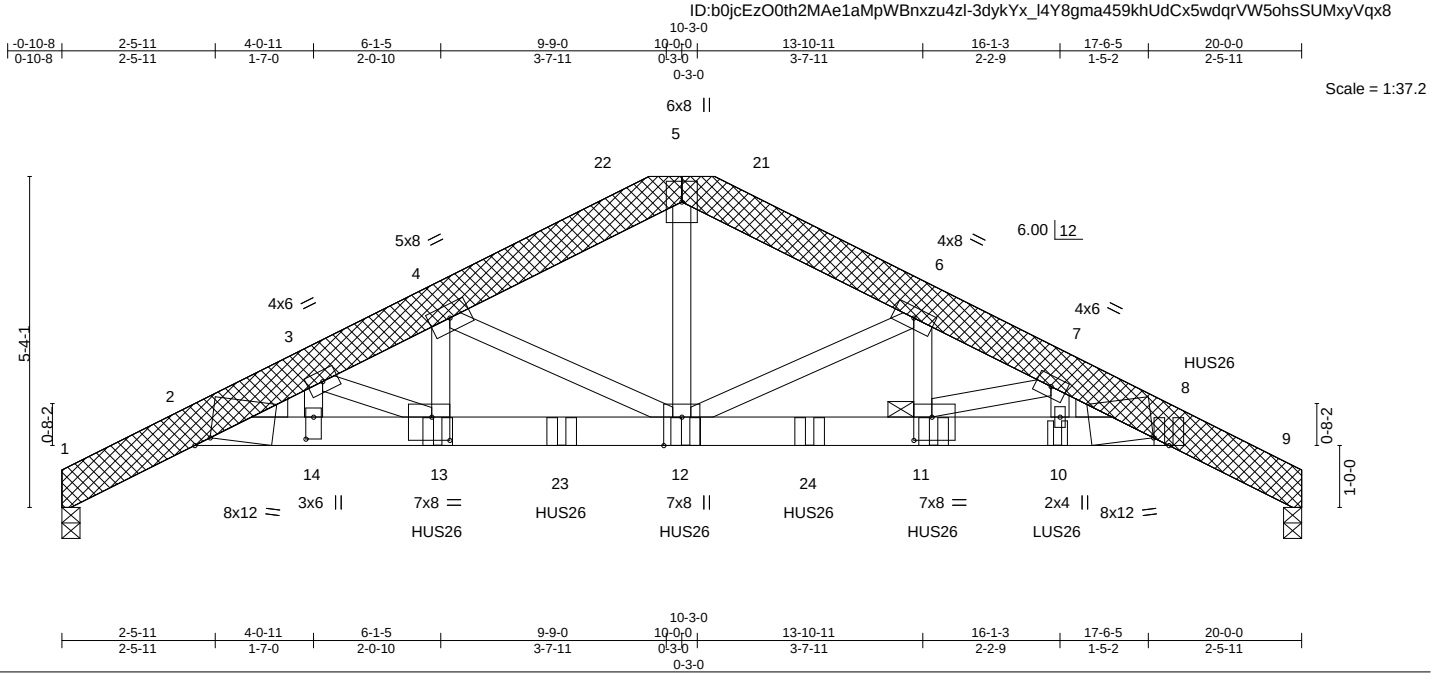


Plate Offsets (X,Y)-- [2:0-2-12,Edge], [8:0-2-12,Edge], [11:0-3-8,0-4-8], [12:0-5-8,Edge], [13:0-3-8,0-4-8], [14:0-4-4,0-1-8]

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	0.74	Vert(LL)	-0.19	12-13	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.41	12-13	>575	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.31	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 523 lb	FT = 20%

LUMBER-

TOP CHORD	2x8 SP 2400F 2.0E
BOT CHORD	2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2
OTHERS	2x8 SP 2400F 2.0E
LBR SCAB	5-9 2x8 SP 2400F 2.0E both sides
	1-5 2x8 SP 2400F 2.0E both sides

WEDGE

Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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.
JOINTS	1 Brace at Jt(s): 11

REACTIONS. (size) 1=0-3-8, 9=0-3-8

Max Horz 1=-76(LC 30)

Max Uplift 1=-651(LC 8), 9=-713(LC 9)

Max Grav 1=5877(LC 1), 9=5572(LC 1)

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

TOP CHORD	5-6=-9042/1058, 6-7=-12670/1507, 7-8=-14941/1877, 8-9=-2482/338, 1-2=-2618/352, 2-3=-15611/1777, 3-4=-12971/1482, 4-5=-9033/1042
BOT CHORD	2-14=-1723/14989, 13-14=-1723/14989, 12-13=-1346/11876, 11-12=-1308/11629, 10-11=-1745/14352, 8-10=-1745/14352
WEBS	4-13=-367/3480, 6-11=-382/3133, 5-12=-712/6306, 6-12=-3737/578, 4-12=-4018/515, 3-14=-125/1205, 3-13=-3509/425, 7-10=-173/769, 7-11=-2982/479

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
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) Attached 11-4-0 scab 5 to 9, both face(s) 2x8 SP 2400F 2.0E with 2 row(s) of MITRSLK-G006 spaced 9" o.c.except : starting at 5-9-14 from end at joint 5, nail 3 row(s) at 7" o.c. for 3-11-9.
4) Attached 11-4-0 scab 1 to 5, both face(s) 2x8 SP 2400F 2.0E with 2 row(s) of MITRSLK-G006 spaced 9" o.c.except : starting at 5-7-11 from end at joint 5, nail 3 row(s) at 4" o.c. for 4-1-11.
5) Scab(s) 5 to 9 to provide bearing enhancement at jt.9, a cluster of 16 (total in each face) evenly spaced - 10d (0.131"x3") nails are required within 12" of jt.9. Bearing is assumed to be SP 2400F 2.0E.
6) Scab(s) 1 to 5 to provide bearing enhancement at jt.1, a cluster of 16 (total in each face) evenly spaced - 10d (0.131"x3") nails are required within 12" of jt.1. Bearing is assumed to be SP 2400F 2.0E.
7) Unbalanced roof live loads have been considered for this design.
8) 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

October 8,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) Bearing at joint(s) 1, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=651, 9=713.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 3-9-9 oc max. starting at 6-0-12 from the left end to 17-10-5 to connect truss(es) to back face of bottom chord.
14) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent at 16-0-12 from the left end to connect truss(es) to back face of bottom chord.
15) Fill all nail holes where hanger is in contact with lumber.
16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1089 lb down and 121 lb up at 2-1-11, and 1078 lb down and 132 lb up at 4-0-12 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: 5-8=-90, 8-9=-112, 15-18=-20, 1-16=-112, 5-16=-90
Concentrated Loads (lb)
Vert: 13=-1080(B) 11=-1080(B) 12=-1080(B) 14=-1078 10=-718(B) 15=-1089 18=-967(B) 23=-1080(B) 24=-1080(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	LG1	Lay-In Gable	1	1	I48255576
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:43 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-?04Uzd0?c9OO?uEUG9jyid1ajRjgzaW58AxbQqyVqx6

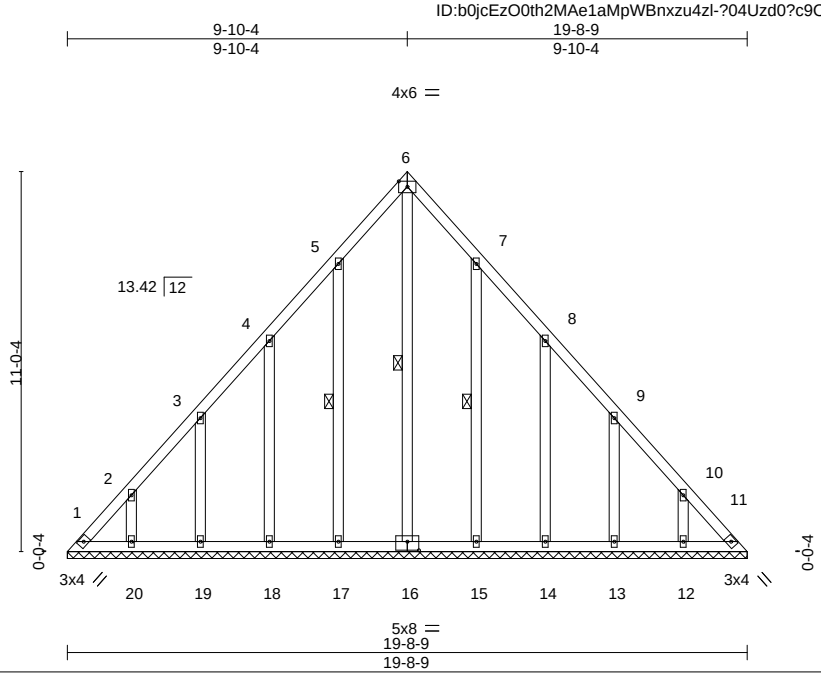


Plate Offsets (X,Y)-- [6:Edge,0-1-14], [16:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 111 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. All bearings 19-8-9.
(lb) - Max Horz 1=258(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 11 except 1=-112(LC 10), 17=-122(LC 12), 18=-127(LC 12), 19=-124(LC 12), 20=-122(LC 12), 15=-120(LC 13), 14=-128(LC 13), 13=-124(LC 13), 12=-122(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 11, 16, 18, 19, 20, 14, 13, 12 except 1=265(LC 12), 17=254(LC 19), 15=252(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-369/232, 2-3=-256/190, 10-11=-333/231

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) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 9-10-4, Exterior(2R) 9-10-4 to 12-10-4, Interior(1) 12-10-4 to 19-4-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 1=112, 17=122, 18=127, 19=124, 20=122, 15=120, 14=128, 13=124, 12=122.
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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	LG2	Lay-In Gable	1	1	I48255577

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:45 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-yOCEOJ1G7me6FCNtOalQn26wPFORRU4OcUQiVjyVqx4

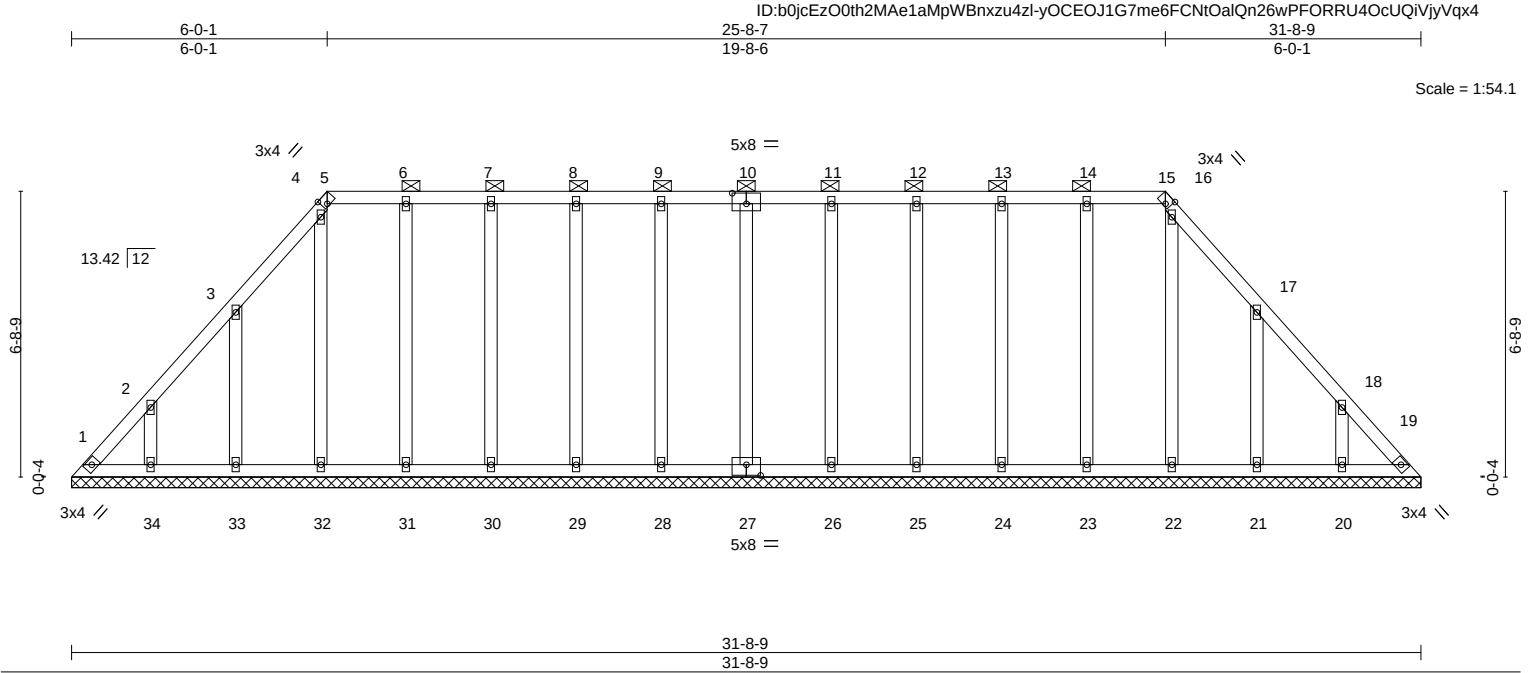


Plate Offsets (X,Y)-- [5:0-1-6,Edge], [10:0-4-0,0-3-0], [15:0-1-6,Edge], [27:0-4-0,0-3-0]

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	19	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 167 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-15.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 31-8-9.

(lb) - Max Horz 1=-156(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 19, 27, 28, 29, 30, 31, 32, 26, 25, 24, 23 except 33=-136(LC 12), 34=-119(LC 12), 21=-138(LC 13), 20=-119(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 19, 27, 28, 29, 30, 31, 32, 34, 26, 25, 24, 23, 22, 20 except 33=253(LC 19), 21=255(LC 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 Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 6-0-1, Exterior(2R) 6-0-1 to 10-3-0, Interior(1) 10-3-0 to 25-8-7, Exterior(2R) 25-8-7 to 29-10-4, Interior(1) 29-10-4 to 31-4-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 19, 27, 28, 29, 30, 31, 32, 26, 25, 24, 23 except (jt=lb) 33=136, 34=119, 21=138, 20=119.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	LG3	Lay-In Gable	1	1	I48255578

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:46 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-Qbmcbf2uu4mzsMy3yHGfKFf51ekUAx7Xq89F19yVqx3

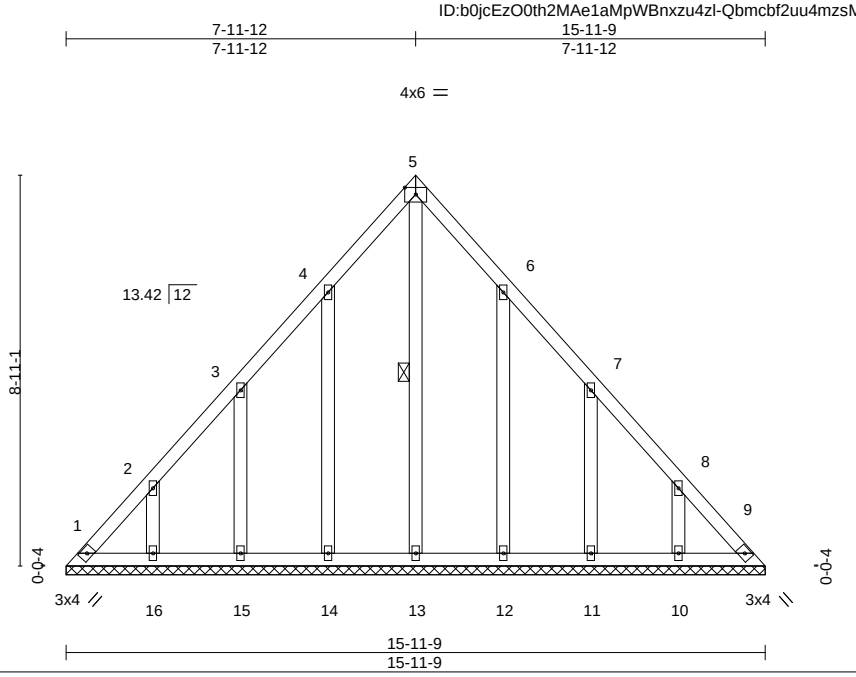


Plate Offsets (X,Y)-- [5:Edge,0-1-14]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 80 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13

REACTIONS. All bearings 15-11-9.
(lb) - Max Horz 1=207(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-126(LC 12), 15=-126(LC 12), 16=-126(LC 12), 12=-124(LC 13), 11=-126(LC 13), 10=-125(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 11, 10 except 14=255(LC 19), 12=253(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-282/185, 8-9=-253/179

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) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 7-11-12, Exterior(2R) 7-11-12 to 10-11-12, Interior(1) 10-11-12 to 15-7-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=126, 15=126, 16=126, 12=124, 11=126, 10=125.
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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	LG4	Lay-In Gable	1	1	I48255579

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:47 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-unK?p_3WfOvqUVXFV_outTBGq24xvQEh3ovoZbyVqx2

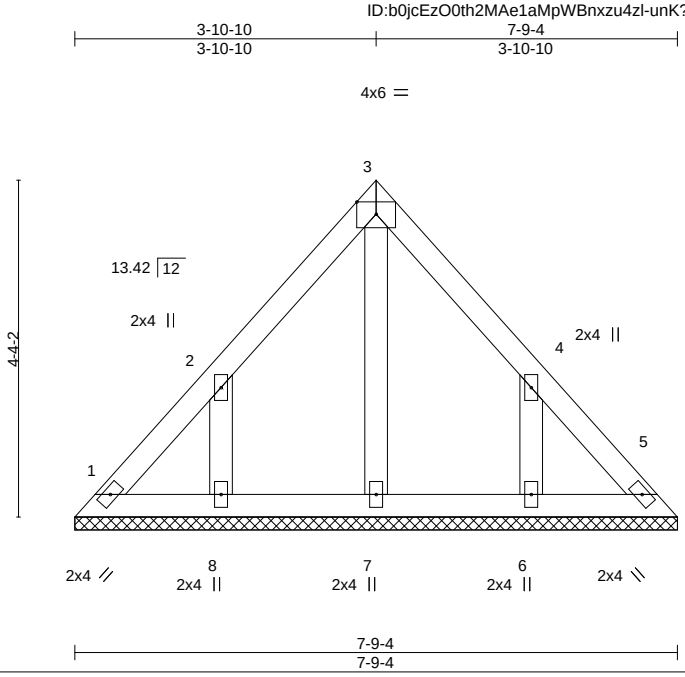


Plate Offsets (X,Y)-- [3:Edge,0-1-14]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 29 lb	FT = 20%

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

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

REACTIONS. All bearings 7-9-4.
(lb) - Max Horz 1=-96(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-140(LC 12), 6=-140(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=266(LC 19), 6=266(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-254/156, 4-6=-254/156

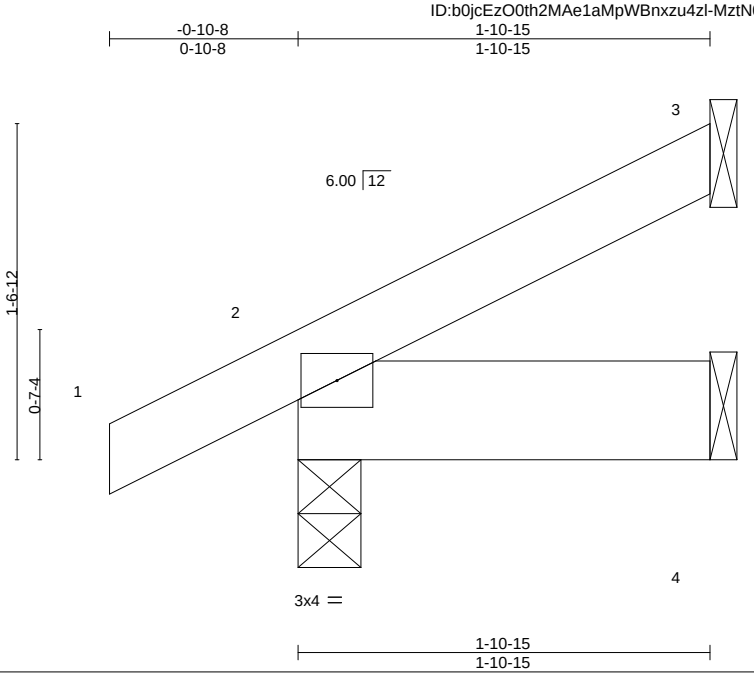
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-10, Exterior(2R) 3-10-10 to 6-10-10, Interior(1) 6-10-10 to 7-5-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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, 5 except (jt=lb) 8=140, 6=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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	M1	Jack-Open	8	1	I48255580
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:48 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-MztN0K48Qh1h6f6R3iJ7PgkRbSQFetvqISeM52yVqx1



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	7	>999	240	MT20	197/144
TCDL	20.0	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: 7 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=49(LC 12)
Max Uplift 3=-22(LC 12), 2=-24(LC 12), 4=-2(LC 12)
Max Grav 3=58(LC 1), 2=201(LC 1), 4=40(LC 3)

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

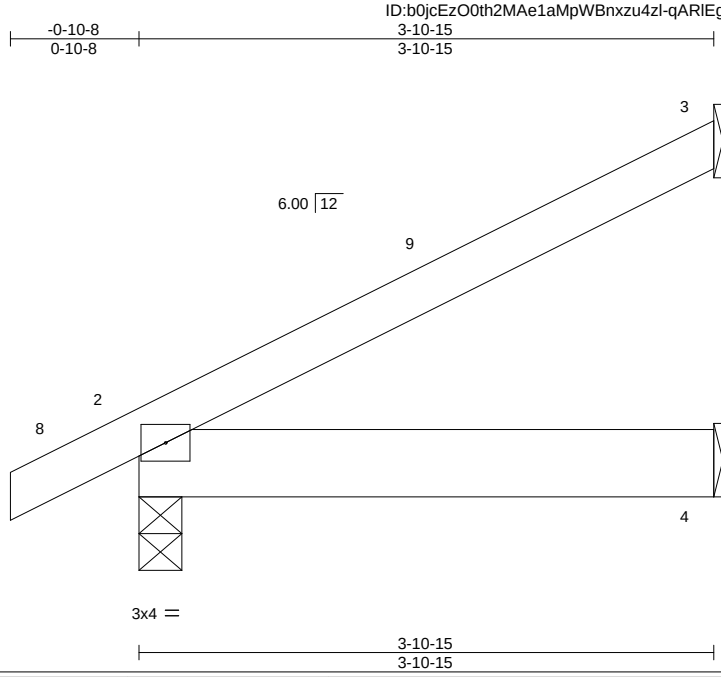
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions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

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	M2	Jack-Open	8	1	I48255581
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:49 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-qARlEg4mB?9YjphedPqMyuHaJslwNK9_W6OveUyVqx0



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.01	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	4-7	>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: 13 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-15 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=84(LC 12)
Max Uplift 3=-48(LC 12), 2=-29(LC 12), 4=-2(LC 12)
Max Grav 3=131(LC 1), 2=299(LC 1), 4=88(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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

October 8,2021

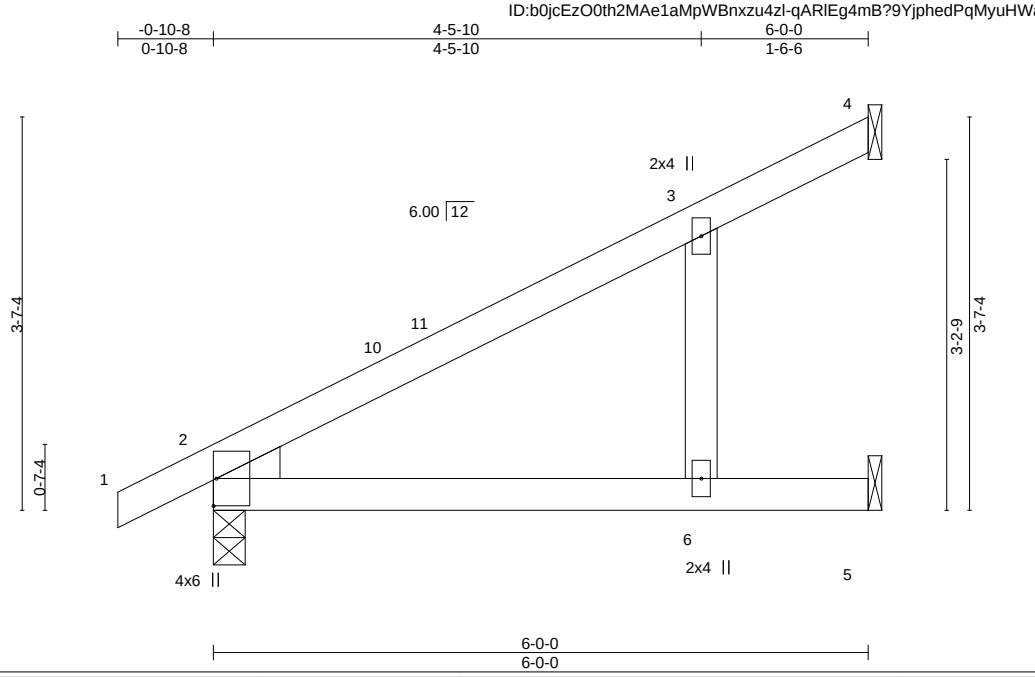
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	M3	Jack-Open	16	1	I48255582

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:49 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-qARlEg4mB?9YjphedPqMyuHWasenNKr_W6OveUyVqx0



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	0.10	6-9	>731	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.19	6-9	>375	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 19 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=123(LC 12)
Max Uplift 4=-42(LC 12), 2=-34(LC 12), 5=-38(LC 12)
Max Grav 4=163(LC 1), 2=411(LC 1), 5=158(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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) 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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	M5	MONOPITCH SUPPORTED	2	1	I48255583

Job Reference (optional)

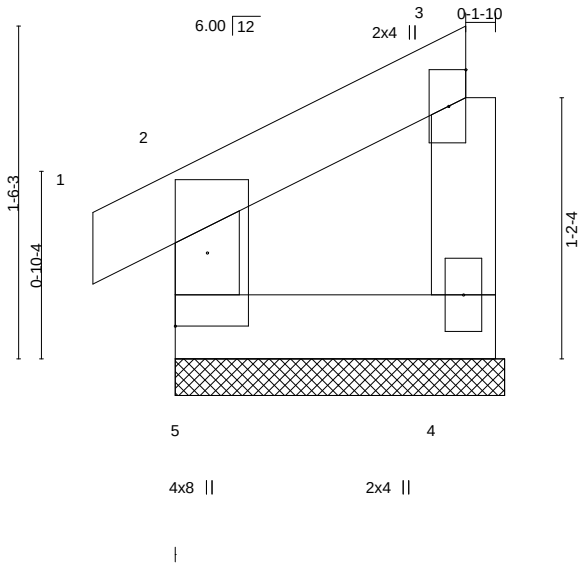
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:50 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-IM?7R05OyJHPLzGqB7LbU5poMG5X6nP7Im7SAwyVqx?

-0-4-8 1-5-8

0-4-8 1-5-8

Scale = 1:10.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	1	n/r	120		
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-R							Weight: 5 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 1-5-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=1-6-0, 4=1-6-0
Max Horz 5=46(LC 11)
Max Uplift 5=-15(LC 12), 4=-23(LC 9)
Max Grav 5=121(LC 1), 4=50(LC 19)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) 5, 4.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	M6	Jack-Open	9	1	I48255584
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:51 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-mYZVfM61jcPFz7r0kqsq1JMpzfM9rE4H_Pt0iMyVqx_

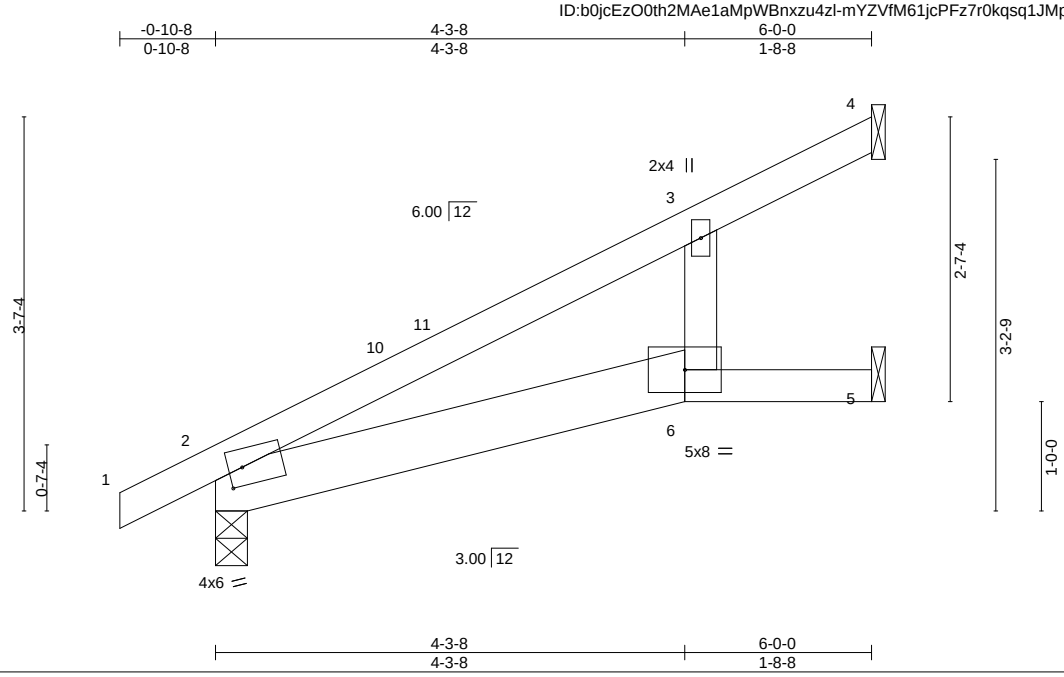


Plate Offsets (X,Y)-- [2:0-1-8,0-2-0]

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	0.70	Vert(LL)	0.10	6	>711	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.19	6	>375	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 20 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=123(LC 12)
Max Uplift 4=-86(LC 12), 2=-34(LC 12)
Max Grav 4=304(LC 1), 2=411(LC 1), 5=33(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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	M7	Jack-Open	2	1	I48255585
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:52 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-Fl7usi7fUwX6bHQDIYN3aWv6j3lVahvQD3dZDpyVqwz

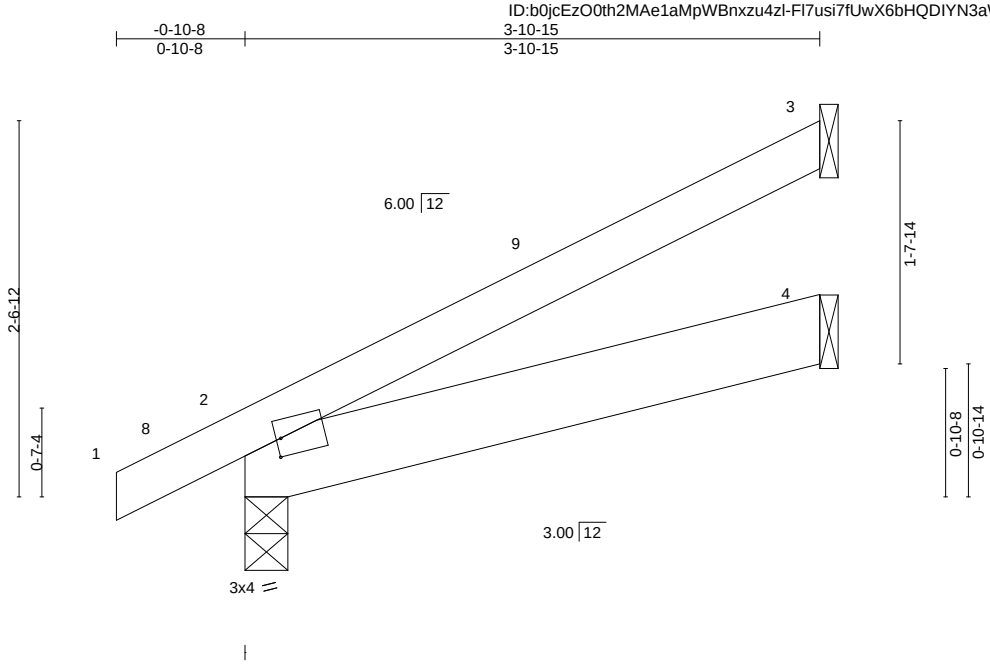


Plate Offsets (X,Y)-- [2:0-0-6,0-1-8]

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	0.19	Vert(LL)	0.01	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-15 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=84(LC 12)
Max Uplift 3=-47(LC 12), 2=-27(LC 12), 4=-5(LC 12)
Max Grav 3=128(LC 1), 2=299(LC 1), 4=89(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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 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.

October 8,2021

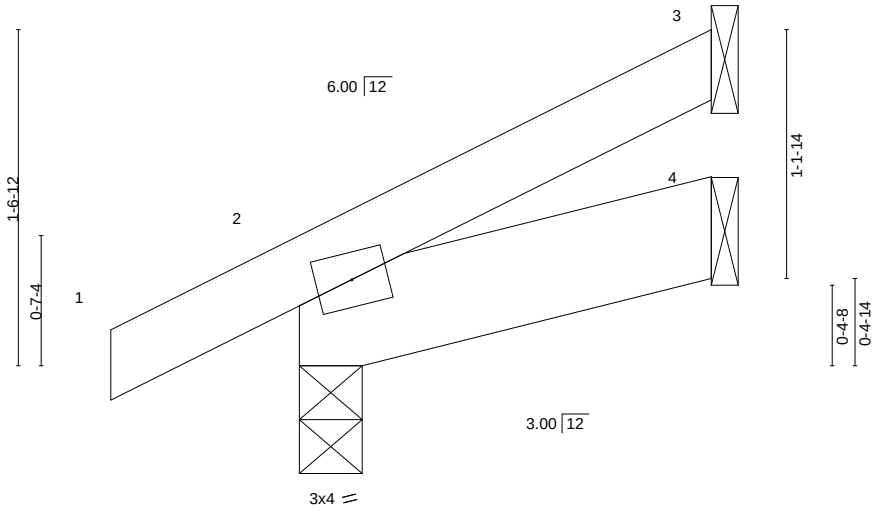
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	M8	Jack-Open	2	1	I48255586
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:52 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-FI7usi7fUwX6bHQDIYN3aWv7b3n9ahvQD3dZDpyVqwz

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

Scale = 1:10.7



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	0.07	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	20.0	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: 7 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=49(LC 12)
Max Uplift 3=-21(LC 12), 2=-22(LC 12), 4=-4(LC 12)
Max Grav 3=55(LC 1), 2=201(LC 1), 4=41(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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 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.

October 8,2021

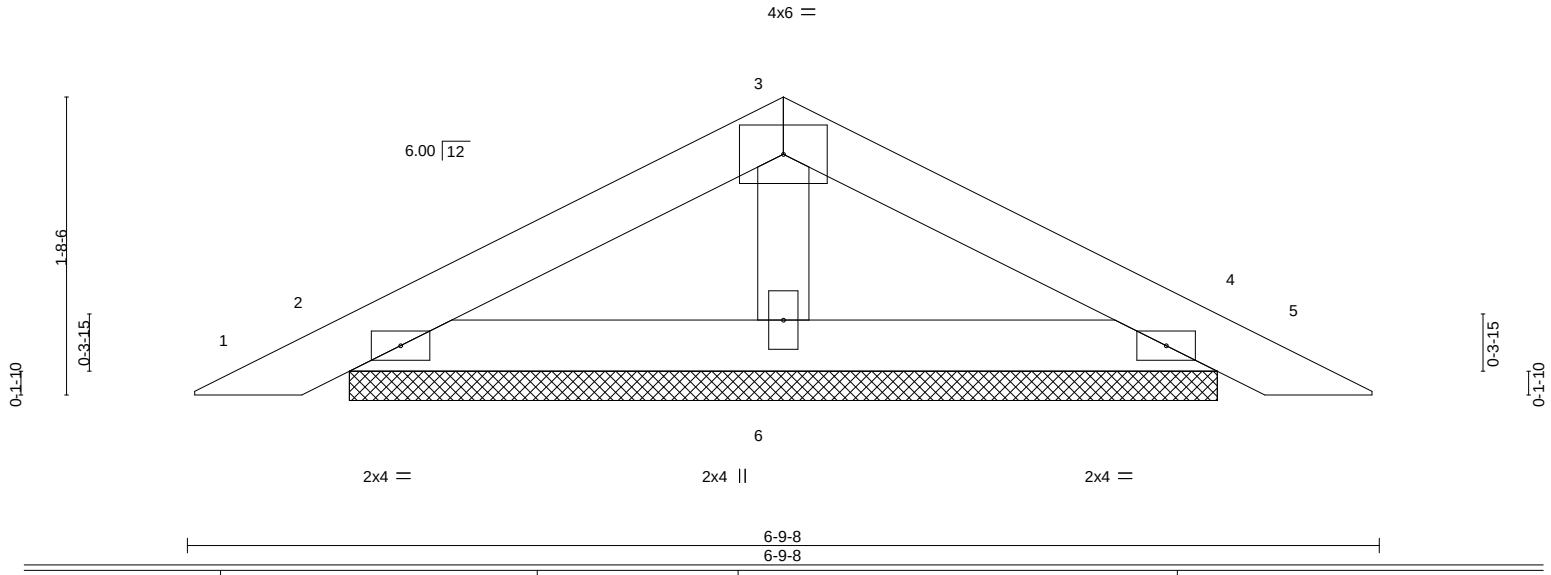
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	PB1	Piggyback	4	1	I48255587
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:53 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-jxhG328HFEfzCQ?PsFvI6kRIUT7qJ8mZRjM7mFyVqwy

3-4-12 6-9-8
3-4-12 3-4-12

Scale = 1:13.1



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	0.12	Vert(LL)	0.00	5	n/r	120	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.01	5	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	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
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) 6=4-11-6, 4=4-11-6, 2=4-11-6
Max Horz 2=-24(LC 17)
Max Uplift 6=-5(LC 12), 4=-42(LC 13), 2=-37(LC 12)
Max Grav 6=253(LC 1), 4=197(LC 1), 2=197(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) 6, 4, 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

October 8,2021

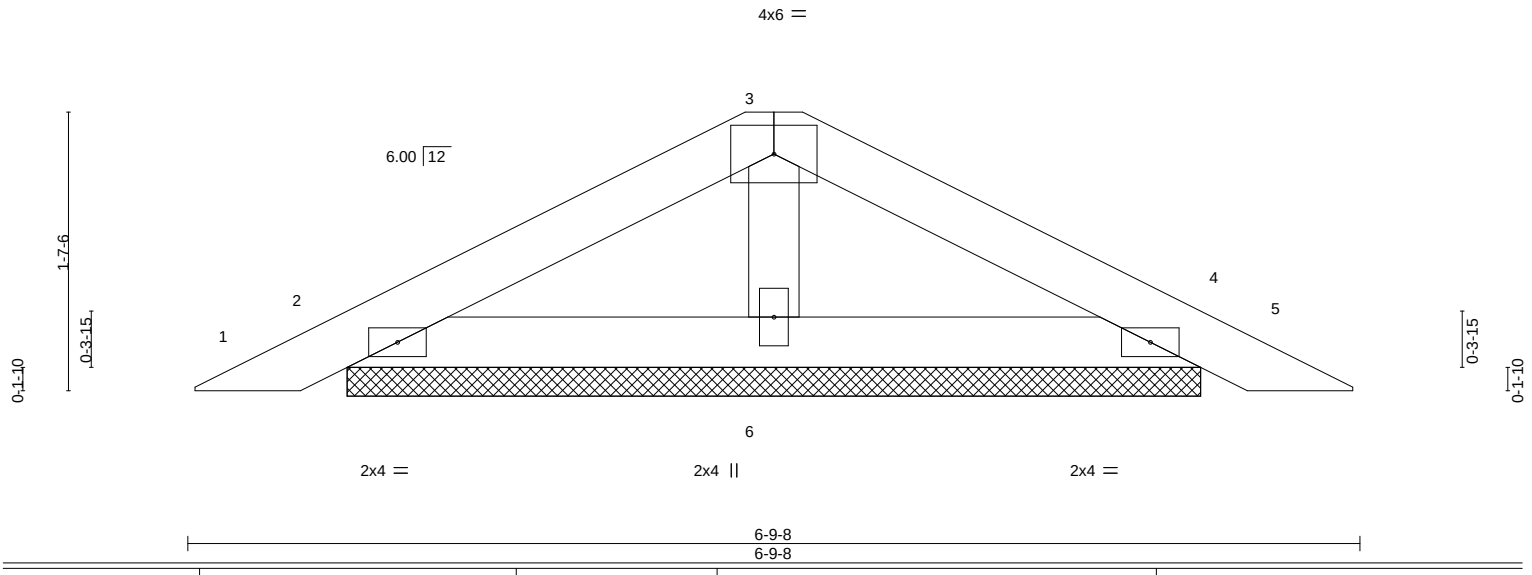
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	PB2	Piggyback	1	1	I48255588
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:54 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-B7FeHO8v0XnqqaZbQyQXfx_TEtT32b0jgN6gIhyVqwx

3-4-12 6-9-8
3-4-12 3-4-12

Scale = 1:13.4



6-9-8
6-9-8

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	0.12	Vert(LL)	0.00	5	n/r	120	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.01	5	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	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
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) 6=4-11-6, 4=4-11-6, 2=4-11-6
Max Horz 2=24(LC 16)
Max Uplift 6=-5(LC 12), 4=-42(LC 13), 2=-37(LC 12)
Max Grav 6=253(LC 1), 4=197(LC 1), 2=197(LC 1)

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

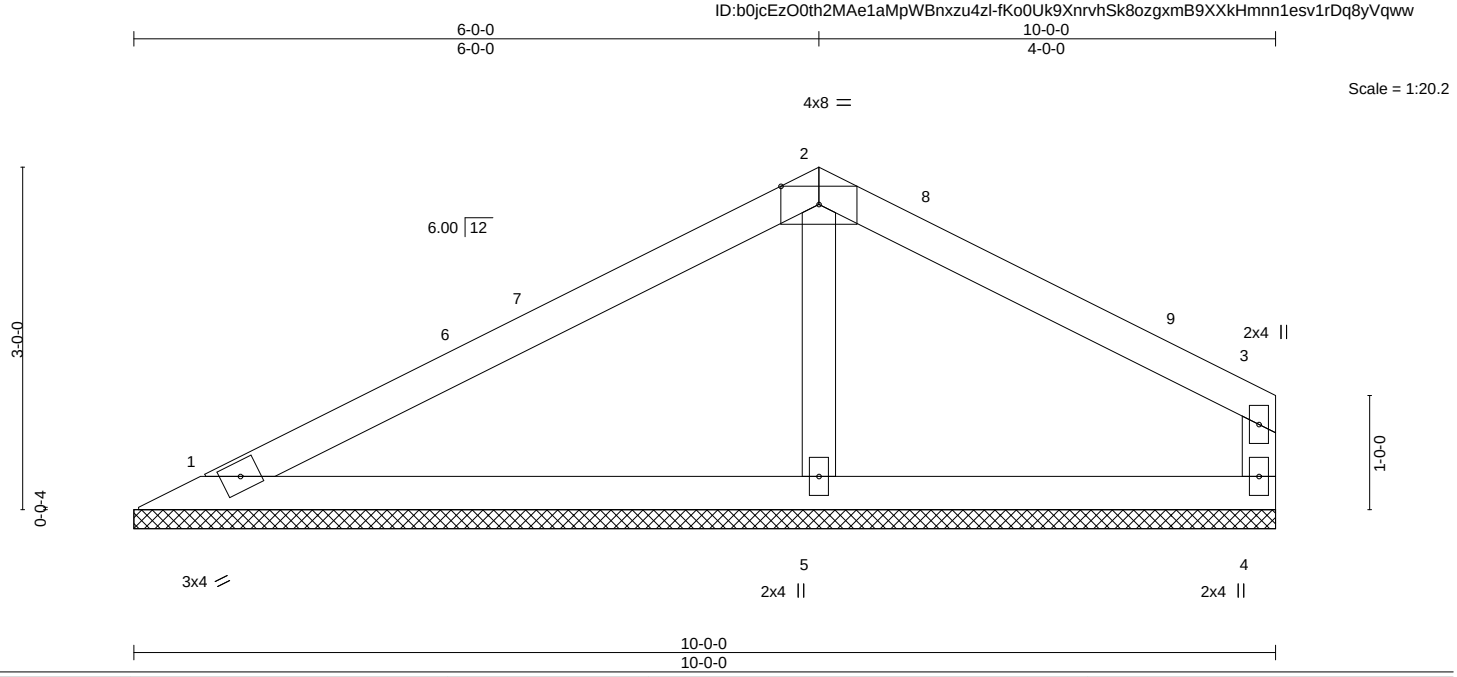
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical 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) 6, 4, 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	V1	Valley	1	1	I48255589
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:55 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-fKo0Uk9XnrvhSk8ozgxmB9XXkHmnn1esv1rDq8yVqww



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 27 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=10-0-0, 4=10-0-0, 5=10-0-0
Max Horz 1=51(LC 9)
Max Uplift 1=-37(LC 12), 4=-59(LC 13), 5=-45(LC 12)
Max Grav 1=289(LC 1), 4=230(LC 26), 5=523(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-383/164

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

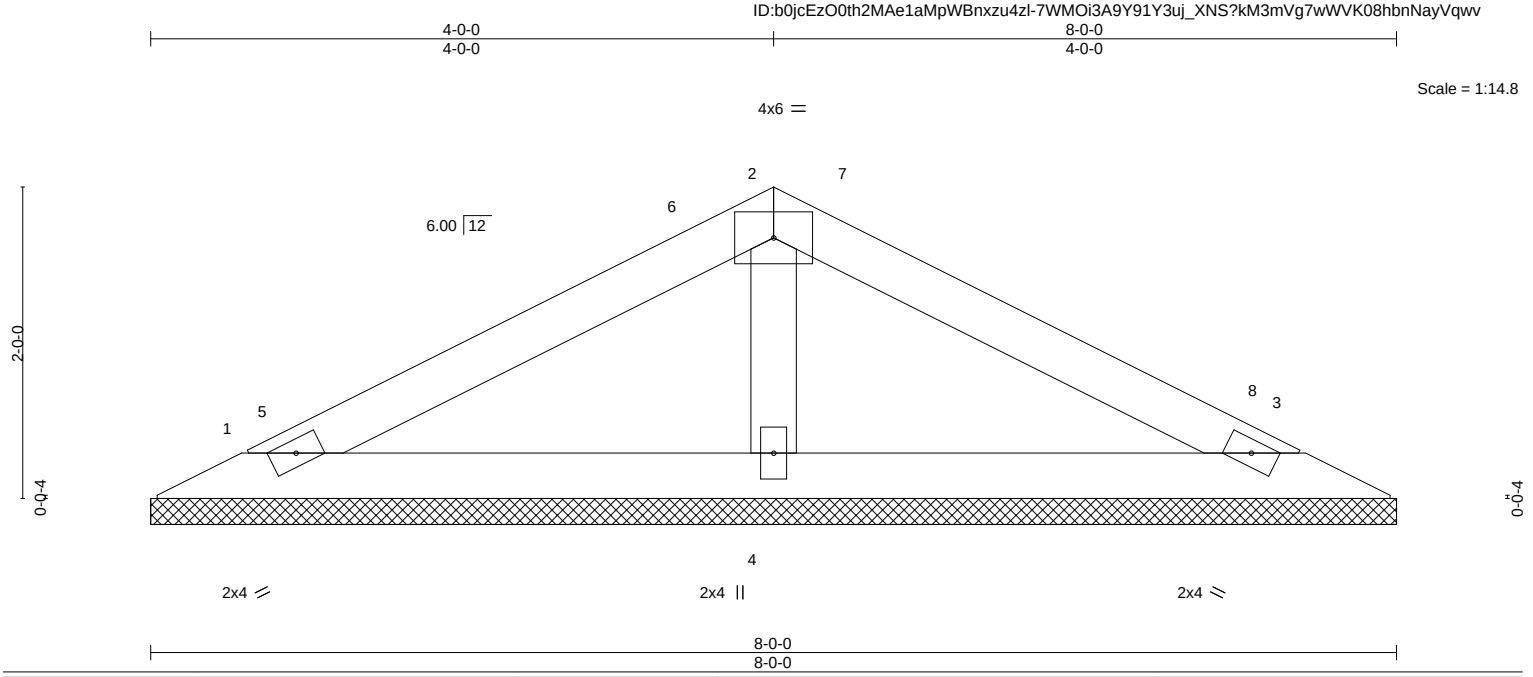
October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	V2	Valley	1	1	I48255590

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:56 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-7WMOi3A9Y91Y3uj_XNS?kM3mVg7wWVK08hbnNayVqwv



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	20.0	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	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 19 lb	FT = 20%

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

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

REACTIONS. (size) 1=8-0-0, 3=8-0-0, 4=8-0-0
Max Horz 1=27(LC 12)
Max Uplift 1=-32(LC 12), 3=-37(LC 13), 4=-11(LC 12)
Max Grav 1=191(LC 1), 3=191(LC 1), 4=359(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-274/135

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

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	V3	Valley	1	1	I48255591
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:57 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-biwnvPBnJS9Ph2IA55zEHac?l4TOFx89MLKKv0yVqwu

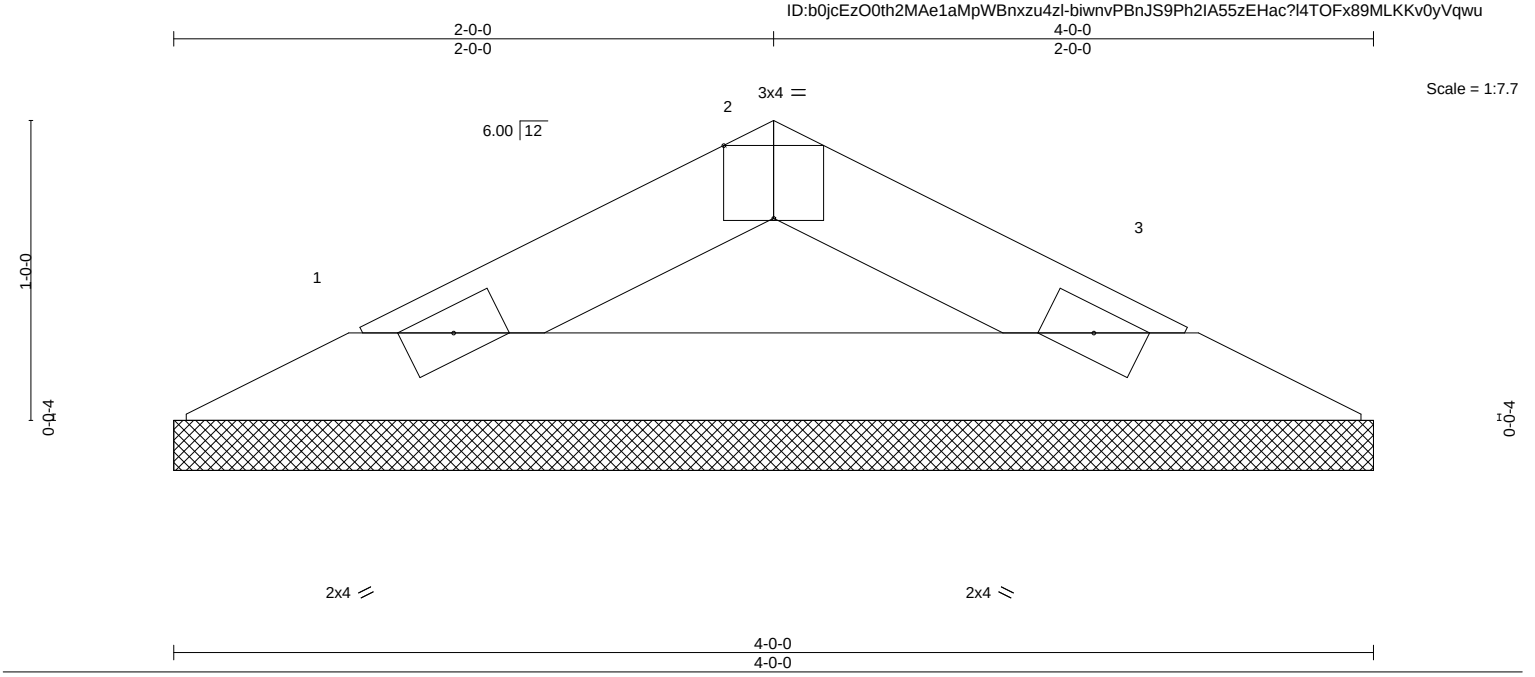


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 8 lb	FT = 20%

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

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

REACTIONS. (size) 1=4-0-0, 3=4-0-0
Max Horz 1=11(LC 16)
Max Uplift 1=-15(LC 12), 3=-15(LC 13)
Max Grav 1=151(LC 1), 3=151(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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	V4	Valley	1	1	I48255592
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:57 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-biwnvPBnJS9Ph2lA55zEHacwL4SMFx89MLKKv0yVqwu

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

Scale = 1:17.6

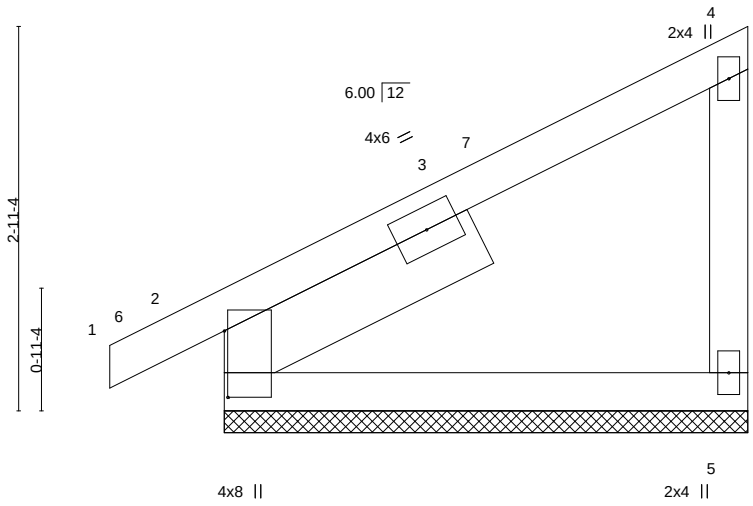


Plate Offsets (X,Y)-- [2:0-6-1,0-0-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	0.01	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 18 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-2-9

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

REACTIONS. (size) 5=4-0-0, 2=4-0-0
Max Horz 2=92(LC 11)
Max Uplift 5=-45(LC 12), 2=-34(LC 12)
Max Grav 5=203(LC 1), 2=300(LC 1)

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

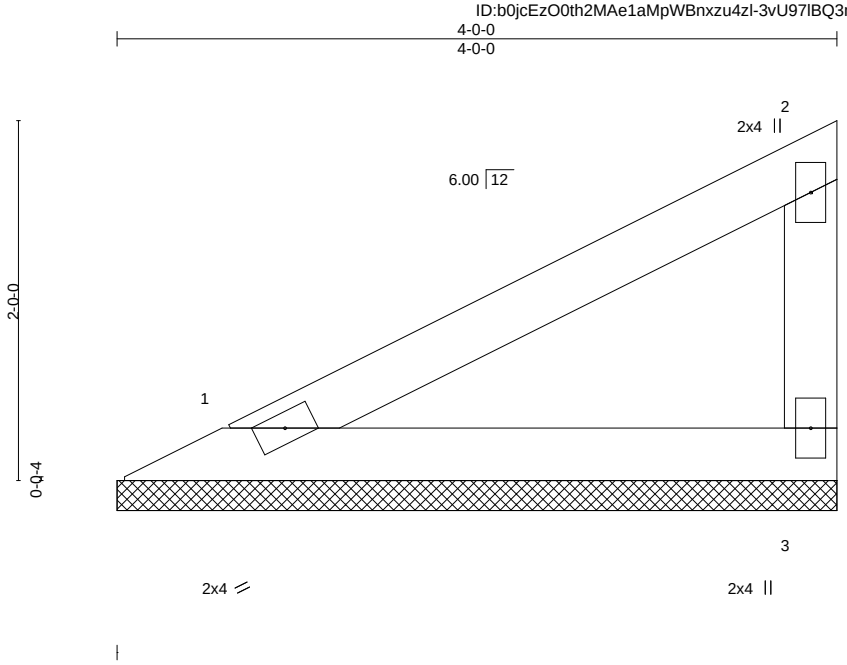
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	V5	Valley	1	1	I48255593
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:58 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-3vU97IBQ3mHGJCtMfoUTpn97NUpL_OOIb?4uRSyVqwt



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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	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 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-0-0, 3=4-0-0
Max Horz 1=60(LC 11)
Max Uplift 1=-19(LC 12), 3=-34(LC 12)
Max Grav 1=177(LC 1), 3=177(LC 1)

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

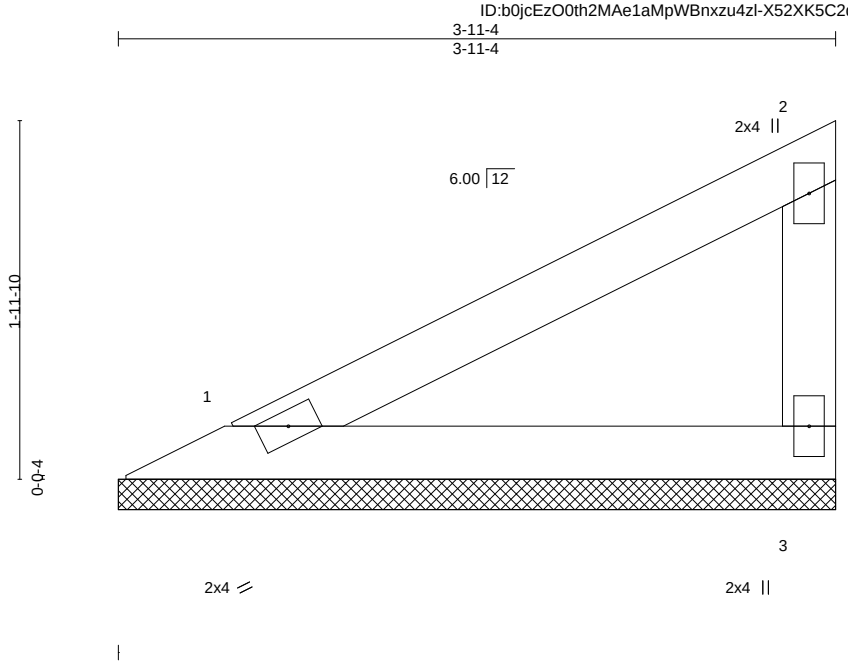
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions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

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	V6	Valley	1	1	I48255594
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:09:59 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-X52XK5C2q4P7wLSZCW?iM?hHGu9ejrdSqfpRzvyVqws



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	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 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-11-4, 3=3-11-4
Max Horz 1=59(LC 9)
Max Uplift 1=-18(LC 12), 3=-33(LC 12)
Max Grav 1=174(LC 1), 3=174(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.

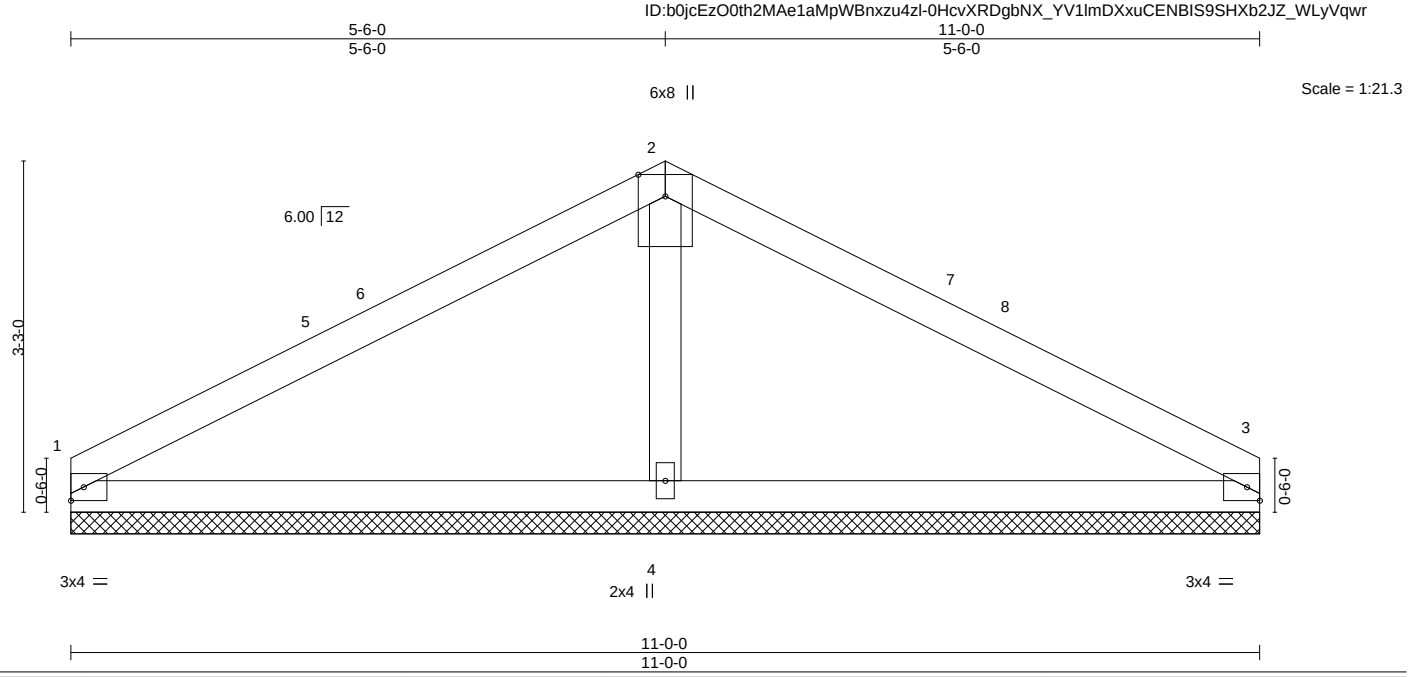
October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	V7	Valley	1	1	I48255595

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:10:00 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-0HcvXRDgbNX_YV1lmDXxuCENBIS9SHXb2JZ_WLyVqwr



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 30 lb	FT = 20%

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

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

REACTIONS. (size) 1=11-0-0, 3=11-0-0, 4=11-0-0
Max Horz 1=47(LC 16)
Max Uplift 1=-43(LC 12), 3=-52(LC 13), 4=-37(LC 12)
Max Grav 1=284(LC 25), 3=284(LC 26), 4=645(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-469/178

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 5-6-0, Exterior(2R) 5-6-0 to 8-6-0, Interior(1) 8-6-0 to 11-0-0 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) 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.

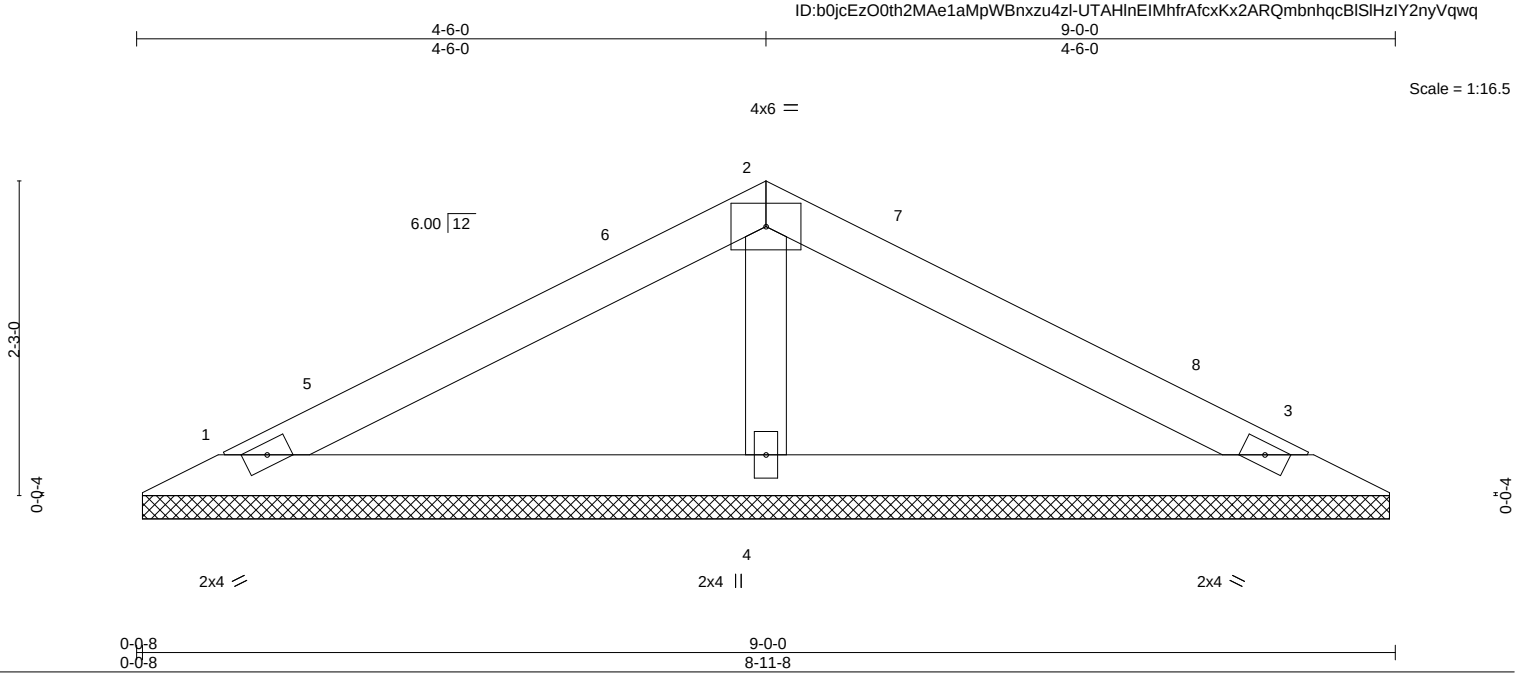
October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	V8	Valley	1	1	I48255596

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:10:01 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zI-UTAHInEIMhfrAfcxKx2ARQmbnhqcBISlHzIY2nyVqwq



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.13	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: 22 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=8-11-0, 3=8-11-0, 4=8-11-0
Max Horz 1=31(LC 16)
Max Uplift 1=-37(LC 12), 3=-43(LC 13), 4=-13(LC 12)
Max Grav 1=220(LC 1), 3=220(LC 1), 4=412(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-315/143

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-6-0, Exterior(2R) 4-6-0 to 7-6-0, Interior(1) 7-6-0 to 8-4-7 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.

October 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #29/MO
2955854	V9	Valley	1	1	I48255597
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 7 10:10:01 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-UTAHlnEIMhfrAfcxKx2ARQmfChqCBl7IHzIY2nyVqwq

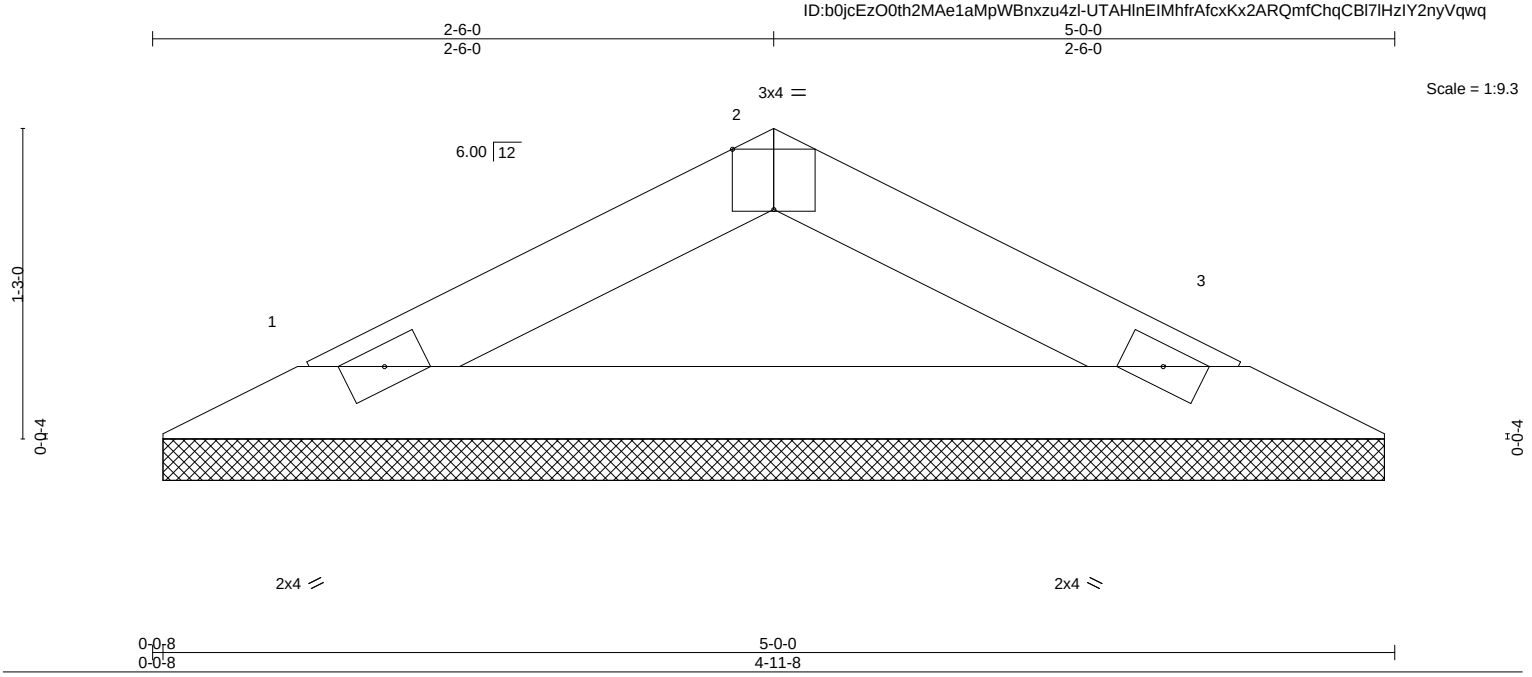


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.15	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

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

REACTIONS. (size) 1=4-11-0, 3=4-11-0
Max Horz 1=15(LC 16)
Max Uplift 1=-21(LC 12), 3=-21(LC 13)
Max Grav 1=206(LC 1), 3=206(LC 1)

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

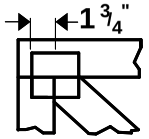
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical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

October 8,2021

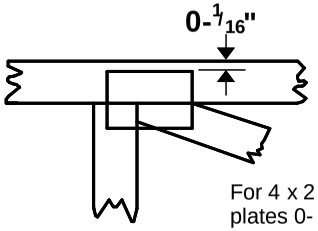
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

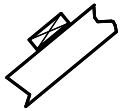
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

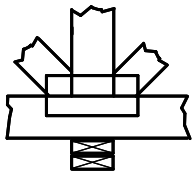
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

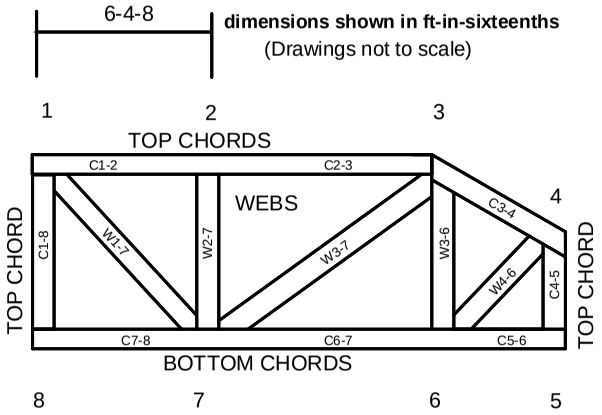


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.