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

03/12/2021

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

Re: 2685114
Summit/88 MANOR

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: I45087388 thru I45087436

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

Missouri COA: Engineering 001193

March 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/88 MANOR	J45087388
2685114	A1	GABLE	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 01 07:39:40 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-torxHv3FsNVJ9SynZ02IYPKrKMtMvM0TNcUVBzzd2Cn

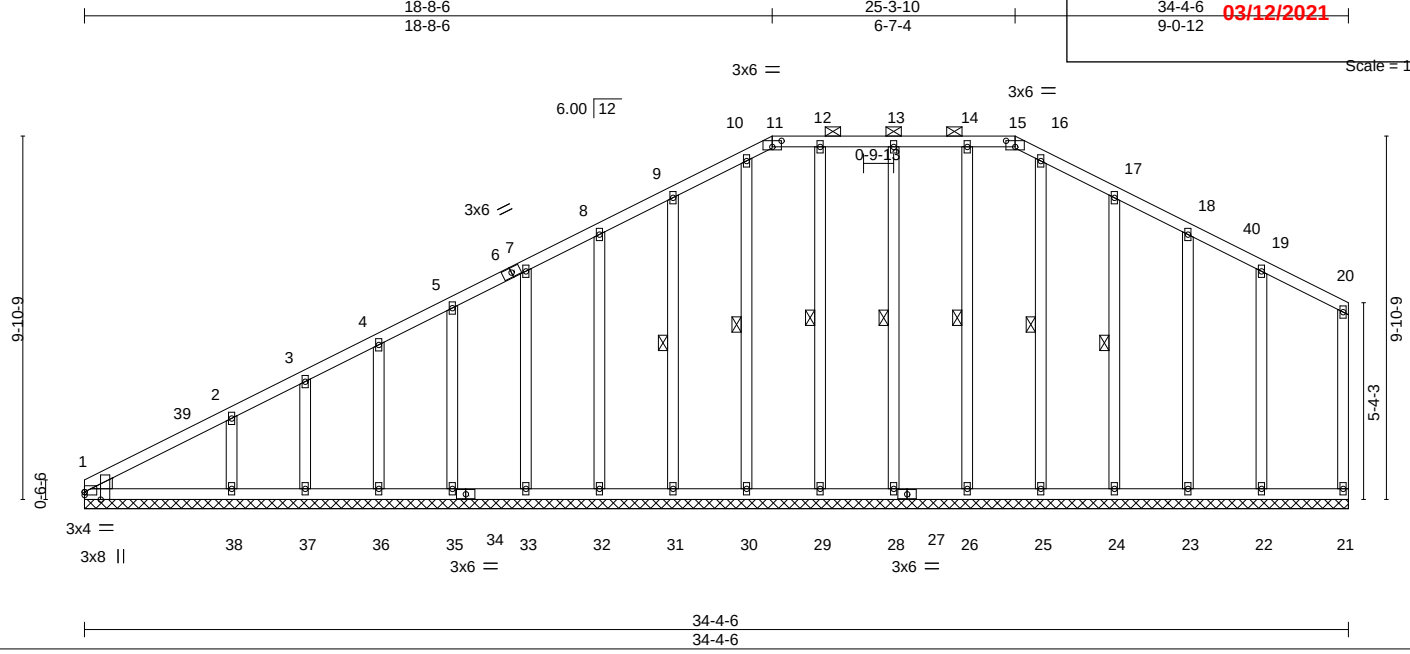


Plate Offsets (X,Y)-- [1:0-2-7,Edge], [1:0-0-0,0-1-0], [11:0-3-0,0-2-0], [15:0-3-0,0-2-0]

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.00	21	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 205 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-15.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 10-30, 9-31, 12-29, 13-28, 14-26, 16-25, 17-24

REACTIONS. All bearings 34-4-6.
(lb) - Max Horz 1=243(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 21, 1, 30, 31, 32, 33, 35, 36, 37, 29, 28, 26, 24, 23, 22 except 38=-118(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 21, 1, 30, 31, 32, 33, 35, 36, 37, 29, 28, 26, 25, 24, 23, 22 except 38=368(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-145/259, 10-11=-137/252, 11-12=-131/257, 12-13=-131/257, 13-14=-131/257, 14-15=-131/257, 15-16=-137/252, 16-17=-145/259
WEBS 2-38=-273/199

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) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 18-8-6, Corner(3R) 18-8-6 to 21-8-6, Exterior(2N) 21-8-6 to 25-3-10, Corner(3R) 25-3-10 to 28-3-10, Exterior(2N) 28-3-10 to 34-2-10 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) 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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21, 1, 30, 31, 32, 33, 35, 36, 37, 29, 28, 26, 24, 23, 22 except (jt=lb) 38=118.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	A2	Piggyback Base	5	1	Job Reference (optional)

I45087389

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 07:39:41 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-L_PJUF4tdhdAncXz6jZX4csvUm3VedcccGD2jPzd2Cm

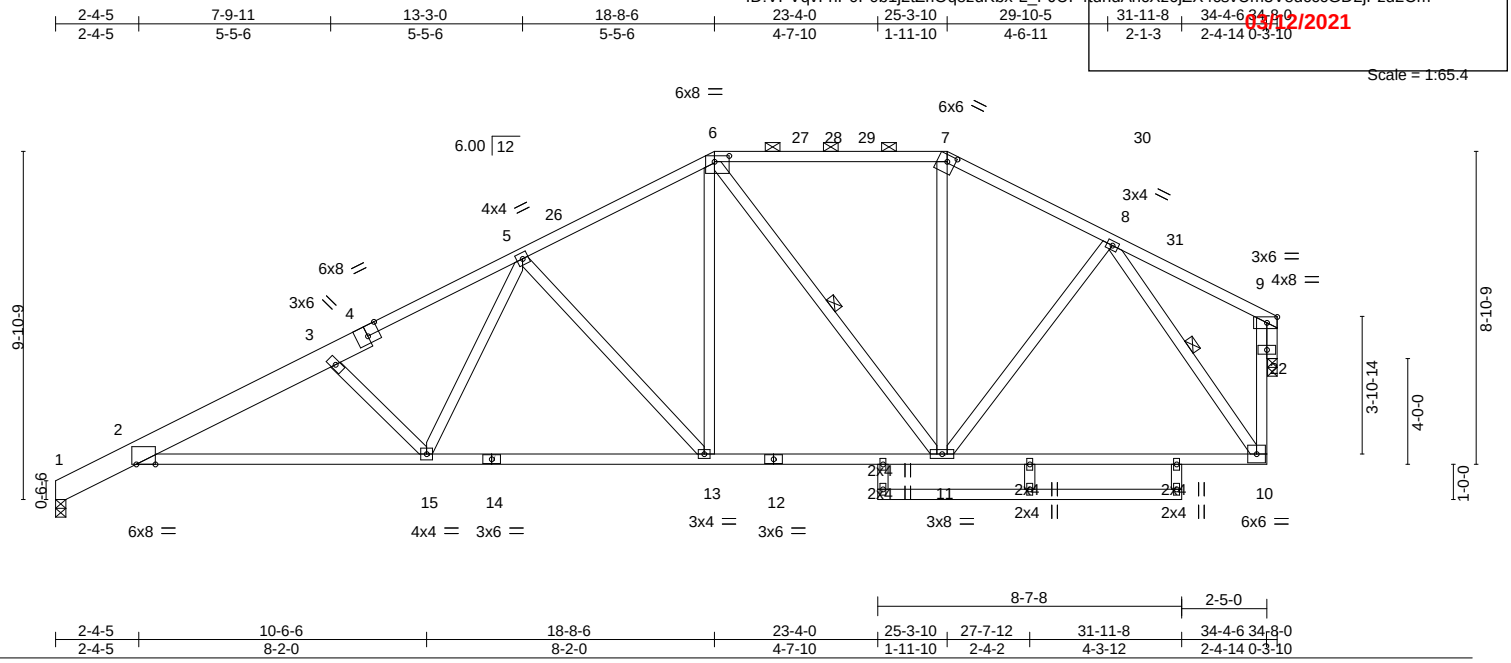


Plate Offsets (X,Y)-- [2:0-6-8,Edge], [4:0-4-0,Edge], [6:0-5-0,0-2-0], [7:0-2-12,0-2-4]

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	0.68	Vert(LL)	-0.28	15-25	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.55	15-25	>743	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.19	22	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 185 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-4: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-14: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-1-5 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-11, 8-10

REACTIONS. (size) 1=0-3-8, 22=0-3-4
Max Horz 1=254(LC 12)
Max Uplift 1=-207(LC 12), 22=-158(LC 13)
Max Grav 1=1551(LC 1), 22=1535(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-685/10, 2-3=-3333/532, 3-5=-2910/482, 5-6=-1816/321, 6-7=-1220/254, 7-8=-1428/258
BOT CHORD 2-15=-667/3106, 13-15=-405/2130, 11-13=-227/1541, 10-11=-119/919, 10-22=-145/1360
WEBS 3-15=-859/283, 5-15=-155/897, 5-13=-858/261, 6-13=-135/764, 6-11=-612/170, 7-11=-37/294, 8-11=-41/550, 8-10=-1543/219

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-10-7, Interior(1) 2-10-7 to 18-8-6, Exterior(2R) 18-8-6 to 22-11-5, Interior(1) 22-11-5 to 25-3-10, Exterior(2R) 25-3-10 to 29-6-9, Interior(1) 29-6-9 to 34-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 1, 22 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=207, 22=158.
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

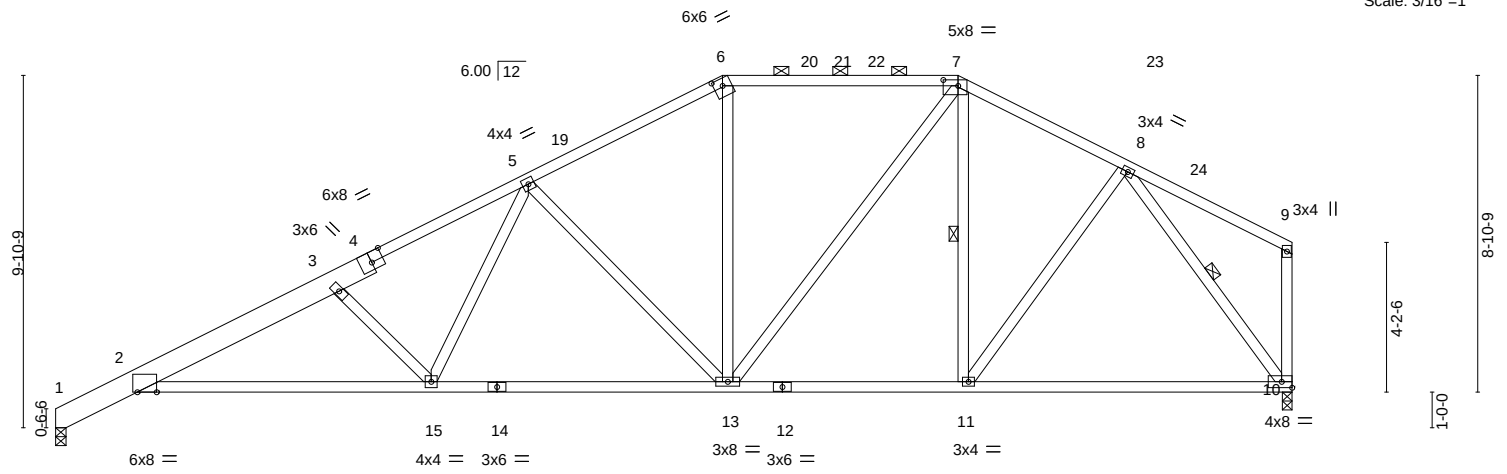
Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	A3	Piggyback Base	1	1	Job Reference (optional)

J45087390

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 07:39:42 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-pAyhib5VO?l1Pl69gR4mdqP48APbN3vlrwzbGrzd2Cl

2-4-5	7-9-11	13-3-0	18-8-6	23-4-0	25-3-10	29-11-2	31-11-8	34-4-6	34-8-0
2-4-5	5-5-6	5-5-6	5-5-6	4-7-10	1-11-10	4-7-8	2-0-6	2-4-14	0-3-10

Scale: 3/16"=1'



2-4-5	10-6-6	18-8-6	23-4-0	25-3-10	27-7-12	31-11-8	34-4-6	34-8-0
2-4-5	8-2-0	8-2-0	4-7-10	1-11-10	2-4-2	4-3-12	2-4-14	0-3-10

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

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	0.69	Vert(LL)	-0.28	15-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.55	15-18	>748	180		
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.24	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 172 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-4: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-14: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-5-10 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-11, 8-10

REACTIONS. (size) 1=0-3-8, 10=0-3-4
Max Horz 1=221(LC 9)
Max Uplift 1=-214(LC 12), 10=-165(LC 13)
Max Grav 1=1564(LC 1), 10=1548(LC 1)

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

TOP CHORD	1-2=-691/80, 2-3=-3369/532, 3-5=-2945/485, 5-6=-1822/324, 6-7=-1565/326, 7-8=-1463/276
BOT CHORD	2-15=-589/3139, 13-15=-348/2159, 11-13=-172/1248, 10-11=-172/978
WEBS	3-15=-861/274, 5-15=-145/903, 5-13=-869/258, 6-13=-15/390, 7-13=-157/609, 7-11=-252/110, 8-11=-47/522, 8-10=-1596/247

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-10-7, Interior(1) 2-10-7 to 18-8-6, Exterior(2R) 18-8-6 to 22-11-5, Interior(1) 22-11-5 to 25-3-10, Exterior(2R) 25-3-10 to 29-6-9, Interior(1) 29-6-9 to 34-6-4 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 6 = 4%
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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=214, 10=165.
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	B1	Piggyback Base	3	1	Job Reference (optional)

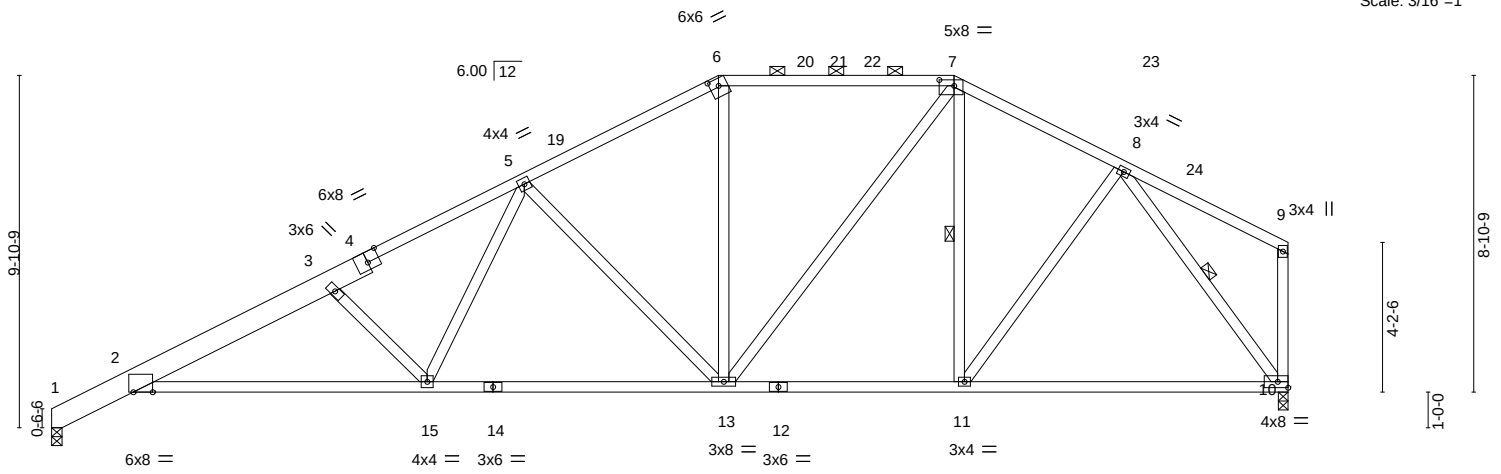
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

I45087391

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 07:43:35 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-HNW3vx579Itu0vhLE8b?A1yFuZlq6W8v3ai9oHzd2Ck

2-4-5	7-9-11	13-3-0	18-8-6	23-4-0	25-3-10	29-11-2	31-11-8	34-4-6	34-8-0
2-4-5	5-5-6	5-5-6	5-5-6	4-7-10	1-11-10	4-7-8	2-0-6	2-4-14	0-3-10

Scale: 3/16"=1'



2-4-5	10-6-6	18-8-6	23-4-0	25-3-10	27-7-12	31-11-8	34-4-6	34-8-0
2-4-5	8-2-0	8-2-0	4-7-10	1-11-10	2-4-2	4-3-12	2-4-14	0-3-10

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

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	0.69	Vert(LL)	-0.28	15-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.55	15-18	>748	180		
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.24	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 172 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-4: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-14: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-5-10 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-11, 8-10

REACTIONS. (size) 1=0-3-8, 10=0-3-4
Max Horz 1=221(LC 9)
Max Uplift 1=-214(LC 12), 10=-165(LC 13)
Max Grav 1=1564(LC 1), 10=1548(LC 1)

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

TOP CHORD	1-2=-691/80, 2-3=-3369/532, 3-5=-2945/485, 5-6=-1822/324, 6-7=-1565/326, 7-8=-1463/276
BOT CHORD	2-15=-589/3139, 13-15=-348/2159, 11-13=-172/1248, 10-11=-172/978
WEBS	3-15=-861/274, 5-15=-145/903, 5-13=-869/258, 6-13=-15/390, 7-13=-157/609, 7-11=-252/110, 8-11=-47/522, 8-10=-1596/247

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-10-7, Interior(1) 2-10-7 to 18-8-6, Exterior(2R) 18-8-6 to 22-11-5, Interior(1) 22-11-5 to 25-3-10, Exterior(2R) 25-3-10 to 29-6-9, Interior(1) 29-6-9 to 34-6-4 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 6 = 4%
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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=214, 10=165.
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.

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

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	C1	Piggyback Base	3	1	Job Reference (optional)

I45087392

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 14:44:03 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-lZ4R7H6lwc?le3FYos6EiFURfz4yrzp2IESiKkzd2Cj

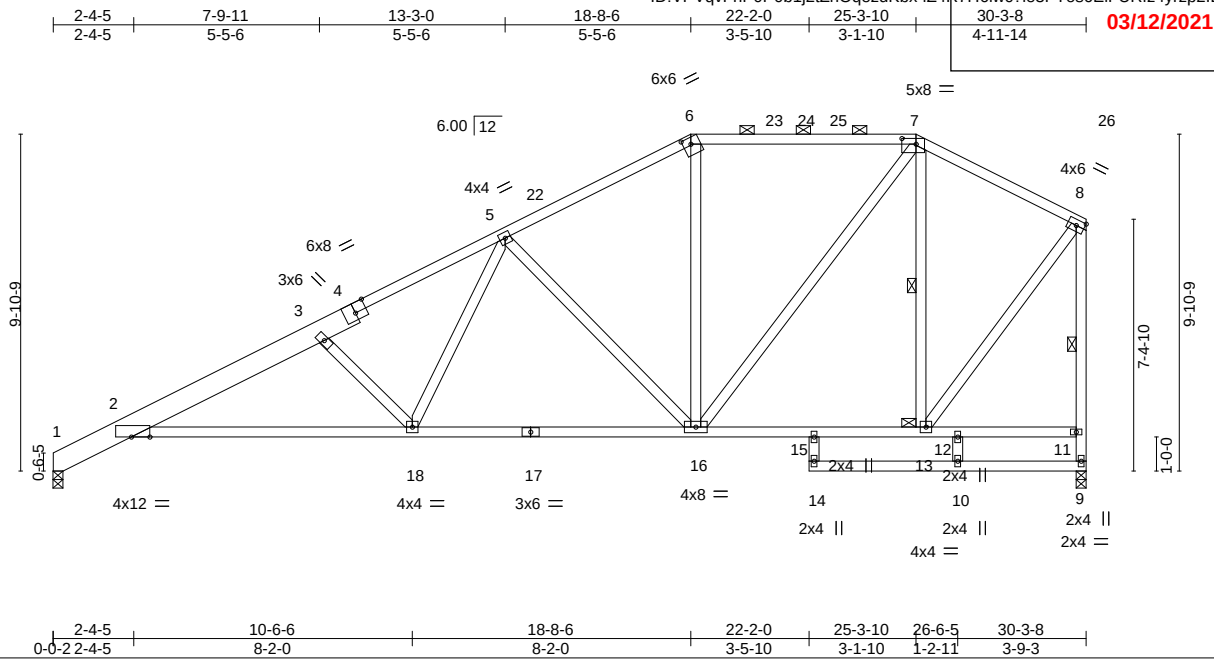


Plate Offsets (X,Y)-- [2:0-6-8,Edge], [4:0-4-0,Edge], [6:0-2-12,0-2-4], [7:0-5-0,0-2-0]

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	0.62	Vert(LL)	-0.24	18-21	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.48	18-21	>756	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.21	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 167 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-4: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-3-1 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-9, 7-13
JOINTS	1 Brace at Jt(s): 13

REACTIONS. (size) 9=0-3-8, 1=0-3-8
Max Horz 1=294(LC 11)
Max Uplift 9=-158(LC 12), 1=-193(LC 12)
Max Grav 9=1351(LC 1), 1=1367(LC 1)

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

TOP CHORD	1-2=-663/103, 2-3=-2836/472, 3-5=-2429/427, 5-6=-1349/271, 6-7=-1137/278, 7-8=-792/201, 9-11=-1319/209, 8-11=-1304/209
BOT CHORD	2-18=-567/2644, 16-18=-389/1720, 15-16=-182/663, 13-15=-213/648
WEBS	3-18=-812/267, 5-18=-141/853, 5-16=-846/256, 6-16=0/252, 7-16=-178/824, 7-13=-731/183, 8-13=-169/1051

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-10-7, Interior(1) 2-10-7 to 18-8-6, Exterior(2R) 18-8-6 to 22-11-5, Interior(1) 22-11-5 to 25-3-10, Exterior(2R) 25-3-10 to 29-6-9, Interior(1) 29-6-9 to 30-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) The Fabrication Tolerance at joint 6 = 12%
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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=158, 1=193.
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	C1A	Piggyback Base	1	1	Job Reference (optional)

I45087393

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 01 08:45:45 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-DleqKc7Nhw7cGDqkLZdTFS1bdNO5aWGCXuBFsAzd2Ci

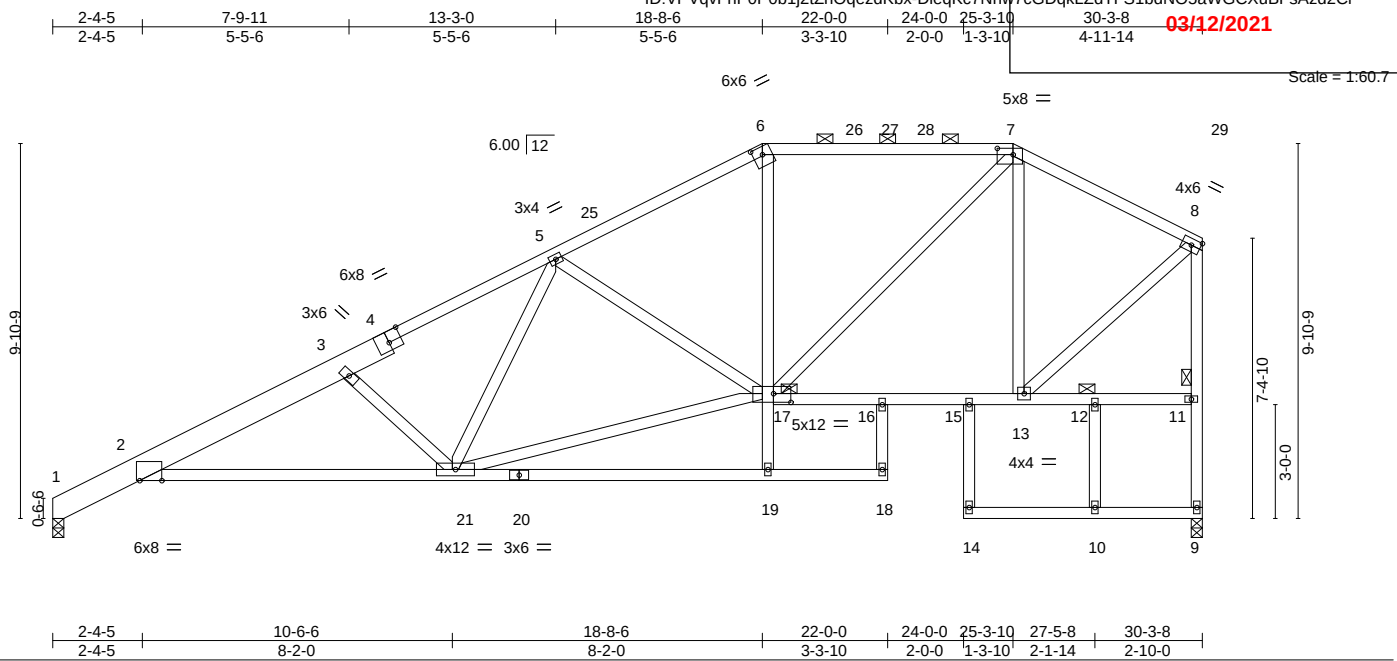


Plate Offsets (X,Y)-- [2:0-7-0,Edge], [4:0-4-0,Edge], [6:0-3-0,0-2-7], [7:0-5-0,0-2-0], [17:0-5-8,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.24	21-24	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.48	21-24	>746	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.25	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 177 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-4: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-7-2 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-9
JOINTS	1 Brace at Jt(s): 17, 12

REACTIONS. (size) 9=0-3-8, 1=0-3-8
Max Horz 1=294(LC 11)
Max Uplift 9=-158(LC 12), 1=-193(LC 12)
Max Grav 9=1351(LC 1), 1=1367(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-663/103, 2-3=-2871/485, 3-5=-2389/415, 5-6=-1702/301, 6-7=-1467/305, 7-8=-1019/172, 9-11=-1329/213, 8-11=-1307/220
BOT CHORD 2-21=-579/2686, 16-17=-233/866, 15-16=-233/866, 13-15=-233/866
WEBS 3-21=-861/279, 5-21=-48/365, 5-17=-565/218, 17-19=0/273, 6-17=0/356, 7-17=-196/905, 17-21=-447/1949, 7-13=-623/157, 8-13=-174/1108

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-10-7, Interior(1) 2-10-7 to 18-8-6, Exterior(2R) 18-8-6 to 22-11-5, Interior(1) 22-11-5 to 25-3-10, Exterior(2R) 25-3-10 to 29-6-9, Interior(1) 29-6-9 to 30-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) The Fabrication Tolerance at joint 6 = 8%
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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=158, 1=193.
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	C2	PIGGYBACK BASE	2	1	Job Reference (optional)

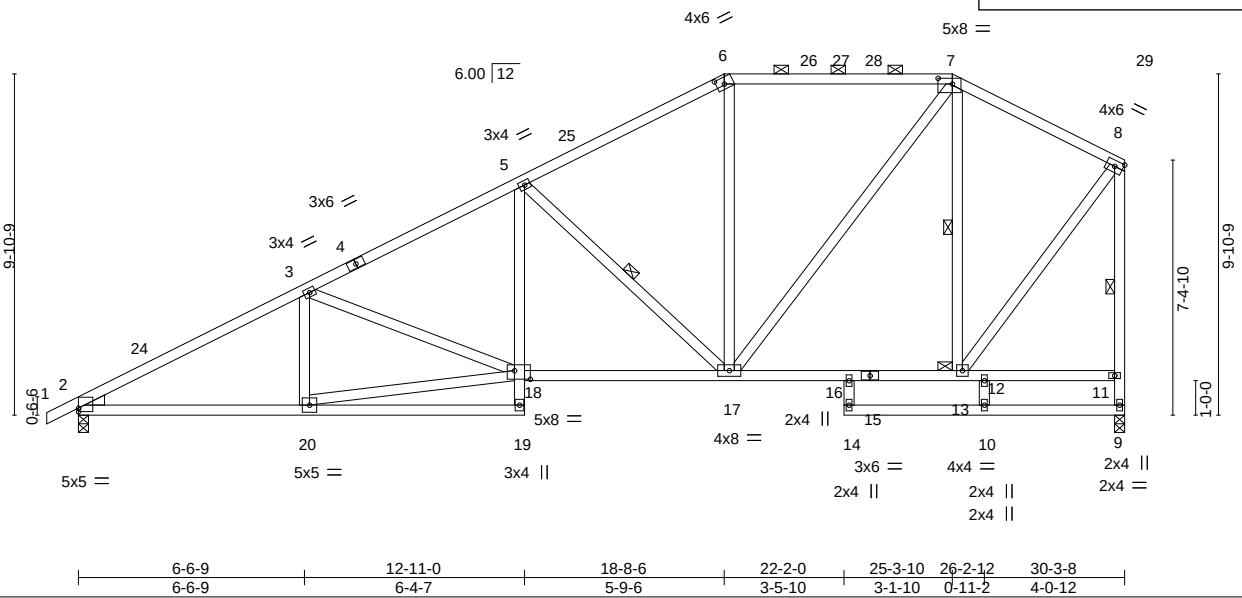
I45087394

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 3 10:44:40 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-iyCCXy80SDFStNPwvH8ingan2nnFJ_7LlYxpPczd2Ch

-0-11-0 6-6-9 12-11-0 18-8-6 22-2-0 25-3-10 30-3-8
0-11-0 6-6-9 6-4-7 5-9-6 3-5-10 3-1-10 4-11-14

Scale = 1:66.7



6-6-9 12-11-0 18-8-6 22-2-0 25-3-10 26-2-12 30-3-8
6-6-9 6-4-7 5-9-6 3-5-10 3-1-10 0-11-2 4-0-12

Plate Offsets (X,Y)-- [2:0-0-0,0-1-4], [6:0-2-12,0-2-4], [7:0-5-0,0-2-0], [18:0-5-8,0-3-0]

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	0.63	Vert(LL)	-0.11	17-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.22	17-18	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 166 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-11 max.): 6-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-17, 8-9, 7-13
JOINTS 1 Brace at Jt(s): 13

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=301(LC 11)
Max Uplift 2=-219(LC 12), 9=-160(LC 12)
Max Grav 2=1422(LC 1), 9=1356(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2392/355, 3-5=-2120/362, 5-6=-1371/275, 6-7=-1142/283, 7-8=-796/199, 9-11=-1321/211, 8-11=-1311/208
BOT CHORD 2-20=-435/2043, 5-18=-61/526, 17-18=-403/1821, 16-17=-179/667, 13-16=-203/657
WEBS 18-20=-419/1926, 3-18=-260/119, 5-17=-927/263, 6-17=0/260, 7-13=-731/189, 8-13=-168/1057, 7-17=-186/825

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 18-8-6, Exterior(2R) 18-8-6 to 22-11-5, Interior(1) 22-11-5 to 25-3-10, Exterior(2R) 25-3-10 to 29-6-9, Interior(1) 29-6-9 to 30-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) The Fabrication Tolerance at joint 6 = 12%
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=219, 9=160.
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.

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

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	C3	PIGGYBACK BASE	4	1	Job Reference (optional)

I45087395

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 07:48:43 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-eKKyye9GzrVA7gZJ1iBAt5f7eaQ2nw2eDsQwTVzd2Cf

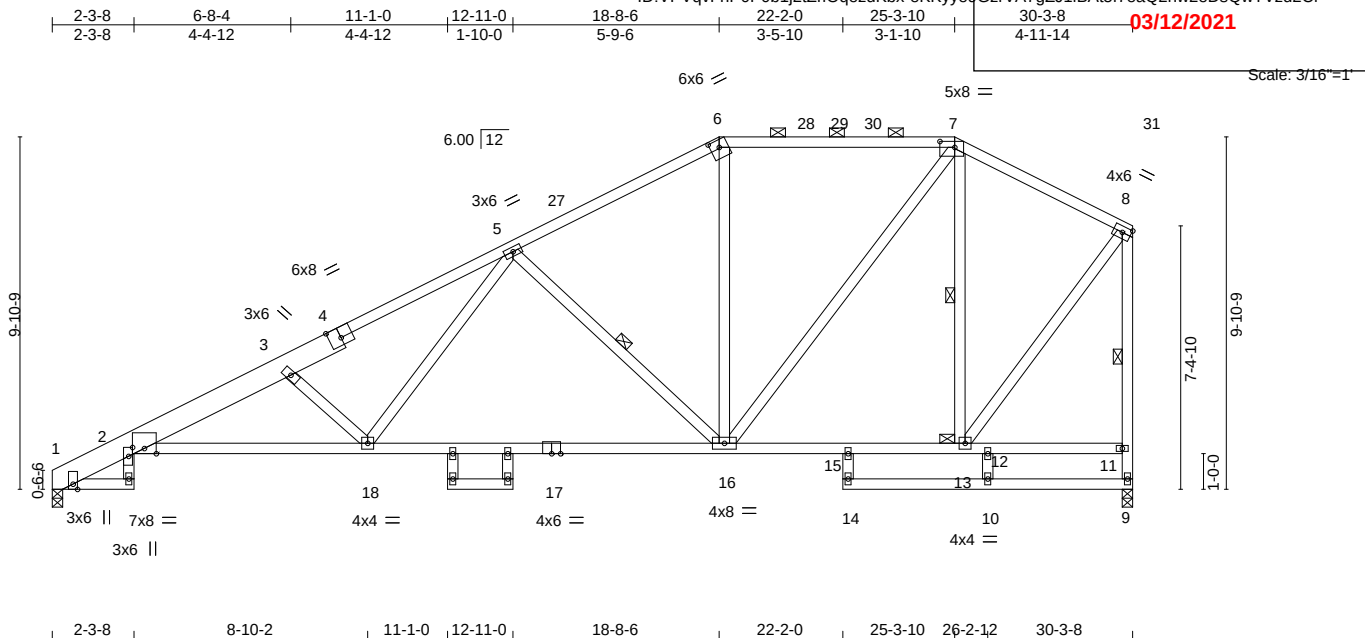


Plate Offsets (X,Y)-- [2:0-3-0,0-1-5], [4:0-4-0,Edge], [6:0-3-0,0-2-7], [7:0-5-0,0-2-0]

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	0.62	Vert(LL)	-0.25	16-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.56	16-18	>640	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.19	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 172 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-4: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-13 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-16, 8-9, 7-13
JOINTS	1 Brace at Jt(s): 13

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=296(LC 12)
Max Uplift 1=-178(LC 12), 9=-172(LC 12)
Max Grav 1=1367(LC 1), 9=1351(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-602/0, 2-3=-3162/545, 3-5=-2733/475, 5-6=-1366/247, 6-7=-1143/257, 7-8=-788/146, 9-11=-1311/200, 8-11=-1298/203
BOT CHORD 2-18=-752/2992, 16-18=-409/1758, 15-16=-94/659, 13-15=-109/630
WEBS 5-16=-854/280, 6-16=0/259, 7-16=-187/840, 5-18=-186/1005, 3-18=-893/323, 7-13=-745/155, 8-13=-147/1046

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-10-7, Interior(1) 2-10-7 to 18-8-6, Exterior(2R) 18-8-6 to 22-11-5, Interior(1) 22-11-5 to 25-3-10, Exterior(2R) 25-3-10 to 29-6-9, Interior(1) 29-6-9 to 30-1-12 zone; cantilever left and right exposed ; end vertical left 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) The Fabrication Tolerance at joint 6 = 8%
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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=178, 9=172.
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	C4	GABLE	1	1	Job Reference (optional)

I45087396

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 07:49:43 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-6XtKA_Auk8d1kq8VaPiPPICM2_y8WQFnSW9T?xzd2Ce

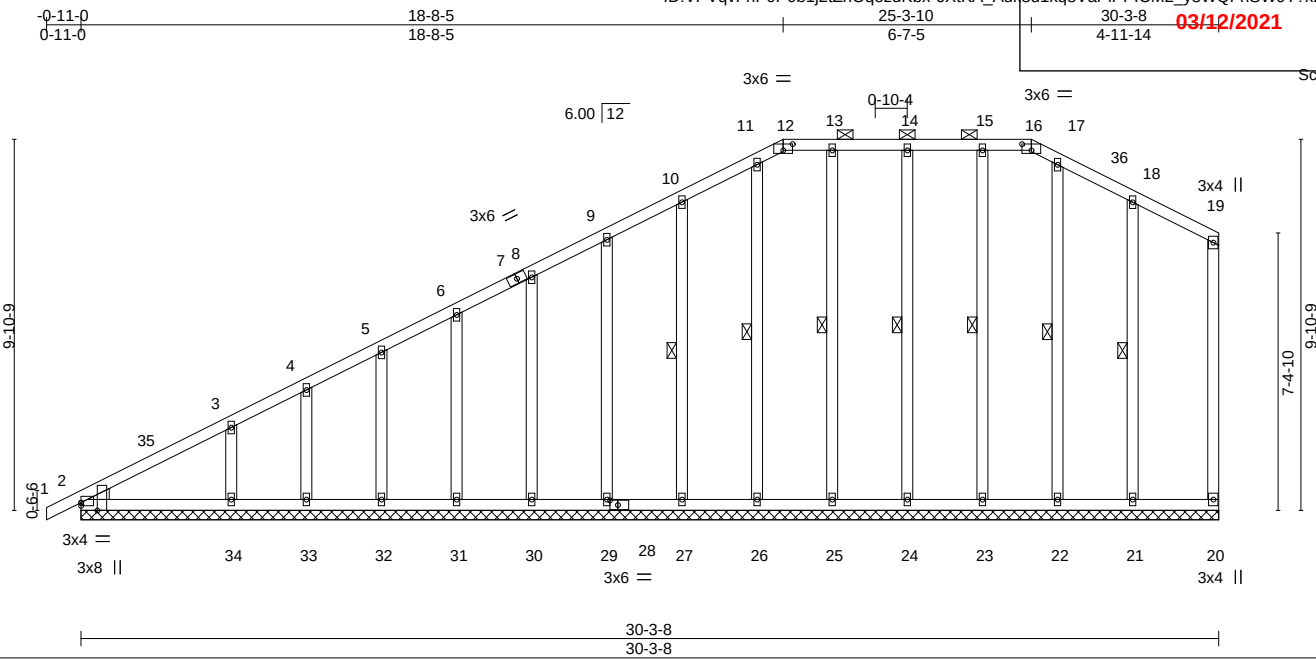


Plate Offsets (X,Y)-- [2:0-2-8,Edge], [2:0-0-0,0-1-0], [12:0-3-0,0-2-0], [16:0-3-0,0-2-0], [28:0-2-8,0-1-8]

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	0.26	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.01	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.00	20	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 184 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 12-16.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 10-27, 11-26, 13-25, 14-24, 15-23, 17-22, 18-21

REACTIONS. All bearings 30-3-8.
(lb) - Max Horz 2=299(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 20, 2, 27, 29, 30, 31, 32, 33, 26, 25, 24, 23, 22, 21 except 34=-114(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 20, 2, 27, 29, 30, 31, 32, 33, 26, 25, 24, 23, 22, 21 except 34=352(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-328/202
WEBS 3-34=-259/166

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 18-8-5, Corner(3R) 18-8-5 to 21-8-5, Exterior(2N) 21-8-5 to 25-3-10, Corner(3R) 25-3-10 to 28-3-10, Exterior(2N) 28-3-10 to 30-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 2, 27, 29, 30, 31, 32, 33, 26, 25, 24, 23, 22, 21 except (jt=lb) 34=114.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

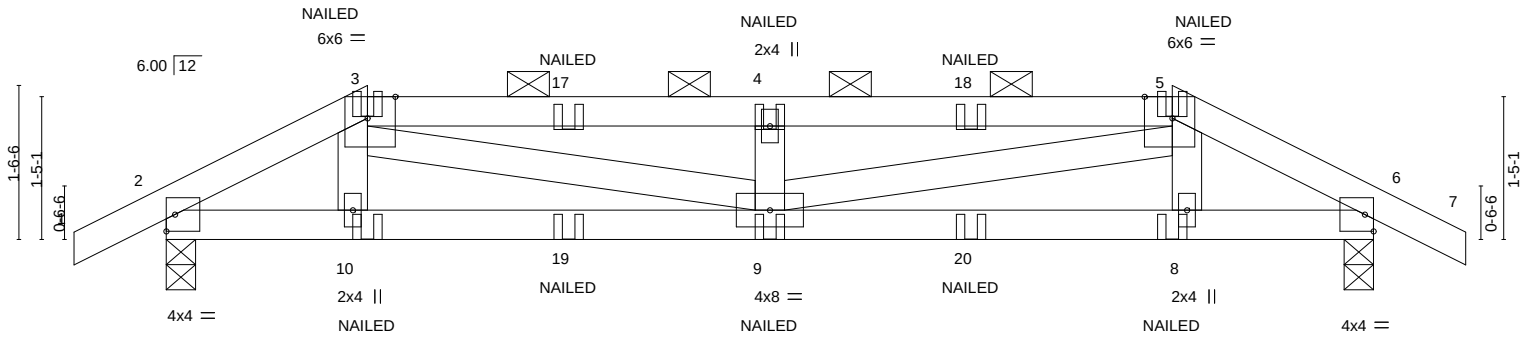
Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR	I45087397
2685114	D1	Hip Girder	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 07:39:50 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ajRjNKBWVSluM_ji86DeyWkXJODDFtXxgAv0YNzd2Cd

-0-11-0 / 0-11-0 | 2-0-0 / 2-0-0 | 6-0-0 / 4-0-0 | 10-0-0 / 4-0-0 | 12-0-0 / 2-0-0 | 12-11-0 / 0-11-0

Scale = 1:22.9



2-0-0 / 2-0-0 | 6-0-0 / 4-0-0 | 10-0-0 / 4-0-0 | 12-0-0 / 2-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.05	9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.09	9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 43 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (4-6-5 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=22(LC 8)
Max Uplift 2=-106(LC 8), 6=-106(LC 9)
Max Grav 2=611(LC 1), 6=611(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-899/147, 3-4=-1506/273, 4-5=-1506/273, 5-6=-899/148
BOT CHORD 2-10=-118/777, 9-10=-123/777, 8-9=-115/777, 6-8=-110/777
WEBS 3-9=-146/774, 4-9=-337/118, 5-9=-146/774

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=106, 6=106.
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 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 5-7=-70, 11-14=-20
Concentrated Loads (lb)
Vert: 10=-3(F) 9=-2(F) 8=-3(F) 19=-2(F) 20=-2(F)

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

March 8,2021

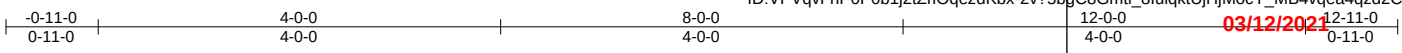
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	D2	HIP	1	1	Job Reference (optional)

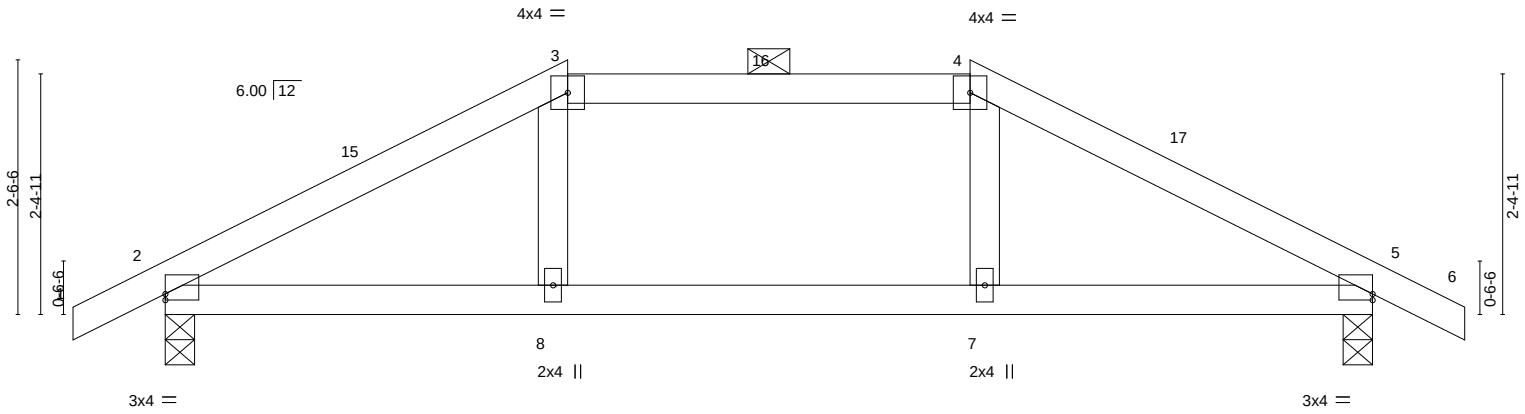
I45087398

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 3 07:39:51 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-2v?5bgC8Gmtl_8luiqktUjHjMocY_MB4vqea4qzd2Cc



Scale = 1:22.9



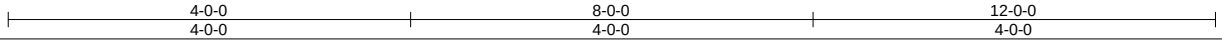


Plate Offsets (X,Y)-- [2:0-0-0,0-0-12], [5:0-0-0,0-0-12]

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	0.21	Vert(LL)	-0.05	8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.06	8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 35 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=38(LC 12)
Max Uplift 2=-89(LC 12), 5=-89(LC 13)
Max Grav 2=604(LC 1), 5=604(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-832/240, 3-4=-687/243, 4-5=-832/240
BOT CHORD 2-8=-134/692, 7-8=-136/687, 5-7=-133/692

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 4-0-0, Exterior(2E) 4-0-0 to 8-0-0, Exterior(2R) 8-0-0 to 12-0-0, Interior(1) 12-0-0 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	D3	COMMON	3	1	Job Reference (optional)

I45087399

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 10 07:39:52 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-W6ZTo0Cm13?cbIt4GXF61xqsiCw0jp4E8UO7cGzd2Cb

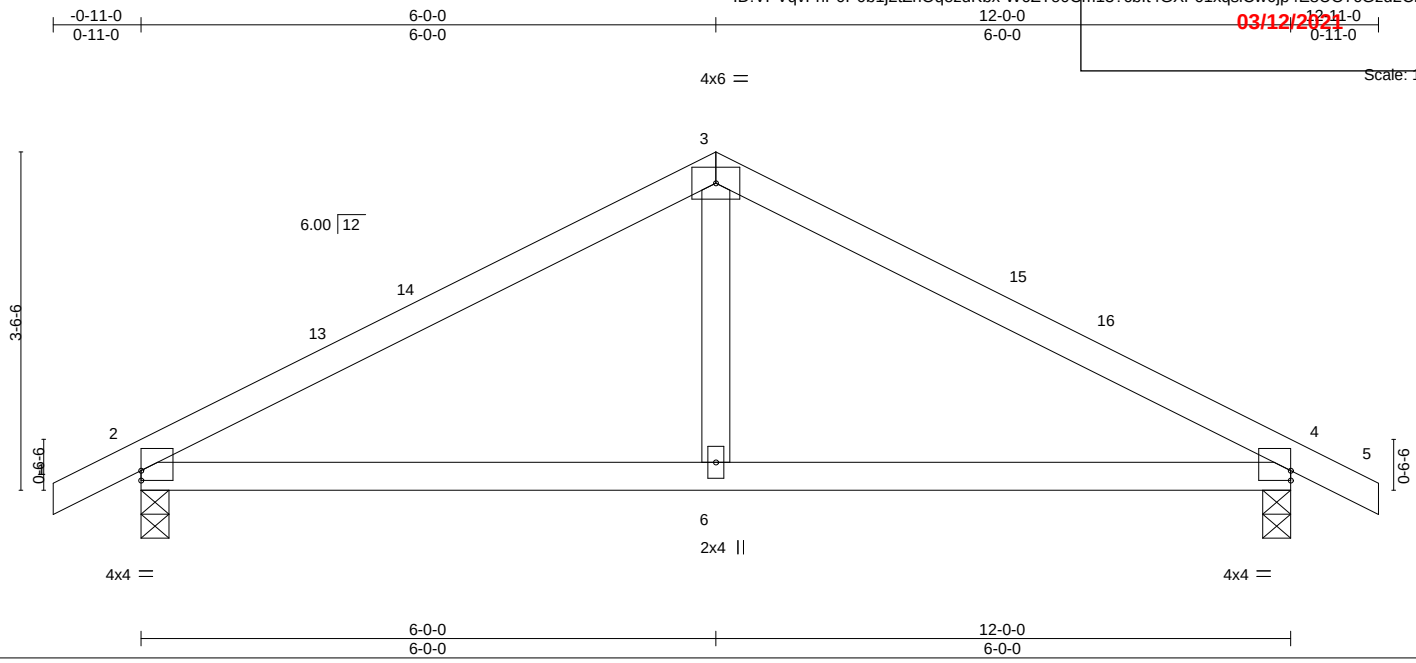


Plate Offsets (X,Y)-- [2:0-0-0,0-1-4], [4:0-0-0,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.04	6-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.06	6-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 35 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=-55(LC 13)
Max Uplift 2=-85(LC 12), 4=-85(LC 13)
Max Grav 2=604(LC 1), 4=604(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-730/236, 3-4=-730/236
BOT CHORD 2-6=-97/573, 4-6=-97/573
WEBS 3-6=0/260

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR	J45087400
2685114	E1	GABLE	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 07:53:36 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-_I7r?MDPoN7TDSSGpFmLZ8M1CbAFSFaNN87h8izd2Ca

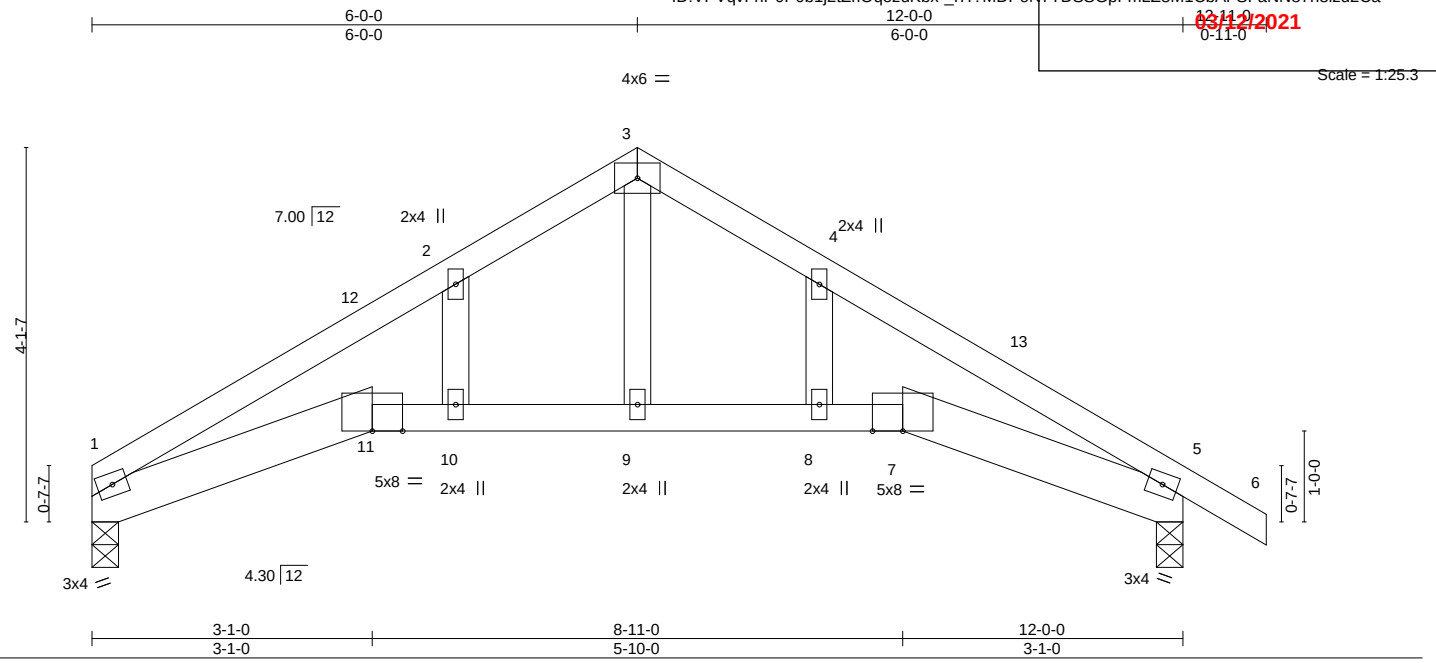


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0], [5:0-0-0,0-0-0]

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	0.38	Vert(LL)	-0.10	11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.18	10-11	>770	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.13	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 42 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
7-11: 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-3-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-92(LC 8)
Max Uplift 1=-62(LC 12), 5=-84(LC 13)
Max Grav 1=524(LC 1), 5=605(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-929/228, 2-3=-778/308, 3-4=-778/308, 4-5=-935/240
BOT CHORD 1-11=-111/711, 10-11=-107/693, 9-10=-107/693, 8-9=-107/693, 7-8=-107/693, 5-7=-114/712
WEBS 3-9=-187/432

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) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 6-0-0, Corner(3R) 6-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable studs spaced at 2-0-0 oc.
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) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	E2	Roof Special	1	1	Job Reference (optional)

I45087401

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 07:53:15 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-TUhDDhE1ZhGKrc0TNyIa6MvD0?ceBhGWbotEh9zd2CZ

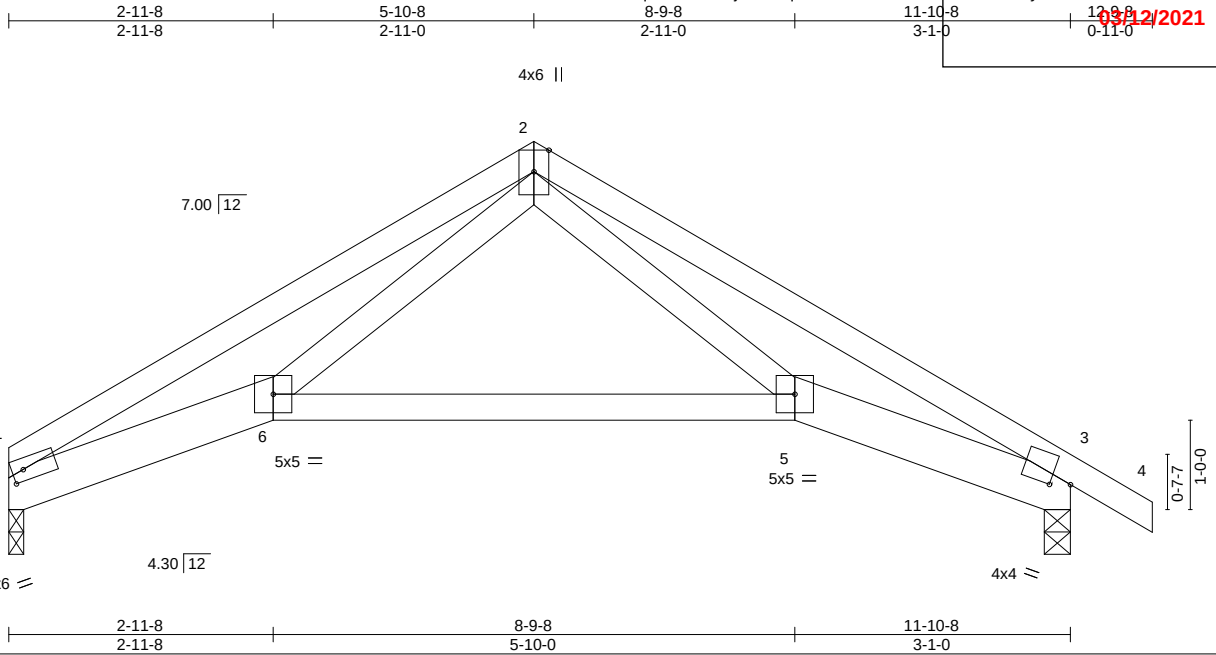


Plate Offsets (X,Y)-- [1:0-1-8,0-1-8], [3:0-2-11,0-0-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.06	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.13	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.05	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 45 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
5-6: 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 1=0-2-0, 3=0-3-8
Max Horz 1=-90(LC 8)
Max Uplift 1=-63(LC 12), 3=-82(LC 13)
Max Grav 1=532(LC 1), 3=601(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1237/179, 2-3=-1257/182
BOT CHORD 1-6=-84/1031, 5-6=-41/577, 3-5=-68/1054
WEBS 2-6=-34/570, 2-5=-18/581

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 5-10-8, Exterior(2R) 5-10-8 to 8-10-8, Interior(1) 8-10-8 to 12-9-8 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) Bearing at joint(s) 1, 3 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 at joint(s) 1.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

March 8,2021

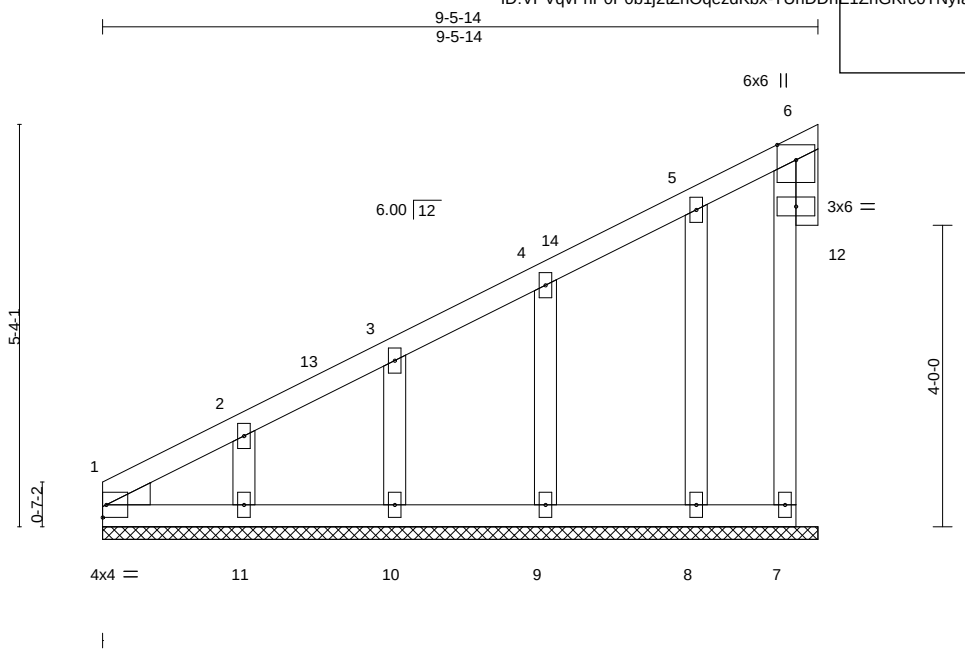
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	E3	GABLE	1	1	Job Reference (optional)

I45087402

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 01 07:39:15 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-TUhDDhE1ZhGKrc0TNyIa6MvFp?f7BjtWbotEh9zd2CZ



Scale = 1:30.6

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 41 lb	FT = 20%

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

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

REACTIONS. All bearings 9-5-14.
(lb) - Max Horz 1=183(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 7, 11, 10, 9, 8
Max Grav All reactions 250 lb or less at joint(s) 7, 11, 10, 9, 8, 1

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-408/210, 2-3=-298/167

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 9-2-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 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) 7, 11, 10, 9, 8.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 8,2021

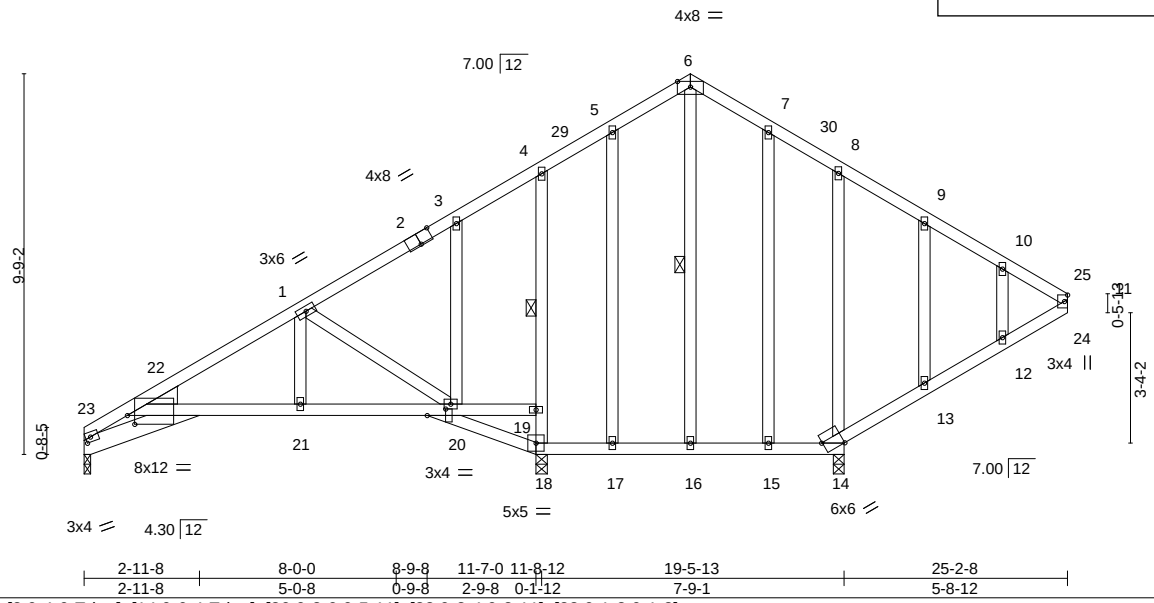
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR	I45087403
2685114	F1	GABLE	1	1	Job Reference (optional)	

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

8.430 s Nov 18 2020 MiTek Industries, Inc. Sat Mar 13 09:38:22 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-hsXpTHYWWsZ1wpwhkyNI4NYGJrJ5NaaJGT2iuzzd0vu

03/12/2021



Scale = 1:59.1

Plate Offsets (X,Y)-- [2:0-4-0,Edge], [14:0-6-4,Edge], [20:0-2-0,0-5-11], [22:0-2-4,0-2-11], [23:0-1-8,0-1-8]

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	0.92	Vert(LL)	0.16	20-21	>888	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.26	20-21	>540	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.14	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 138 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
2-6: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2 *Except*
22-23: 2x6 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x6 SPF No.2

BRACING-
TOP CHORD Sheathed.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-18, 6-16

REACTIONS. (size) 23=0-2-0, 18=0-3-8, 14=0-3-5
Max Horz 23=242(LC 9)
Max Uplift 23=-3(LC 13), 18=-234(LC 12), 14=-139(LC 13)
Max Grav 23=332(LC 25), 18=999(LC 19), 14=868(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-22=-640/54, 3-4=-105/436, 8-9=-66/277
BOT CHORD 22-26=-304/97, 21-22=-190/548, 20-21=-192/554
WEBS 18-19=-992/256, 4-19=-873/210, 8-14=-492/131, 3-20=-24/279, 1-21=-33/261, 1-20=-748/267

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) 1-9-7 to 4-9-7, Interior(1) 4-9-7 to 15-6-8, Exterior(2R) 15-6-8 to 18-6-8, Interior(1) 18-6-8 to 25-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 studs spaced at 2-0-0 oc.
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) 23 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 at joint(s) 23.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 23, 234 lb uplift at joint 18 and 139 lb uplift at joint 14.
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.

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

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR	I45087404
2685114	F2	Roof Special	2	1	Job Reference (optional)	

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

8.430 s Nov 18 2020 MiTek Industries, Inc. Sat Mar 13 09:48:32 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-On7oZign9xpc7LhcK3YfUUy4Vtpjj4RnZ0TEEOzd0vk

03/12/2021

Scale = 1:61.5

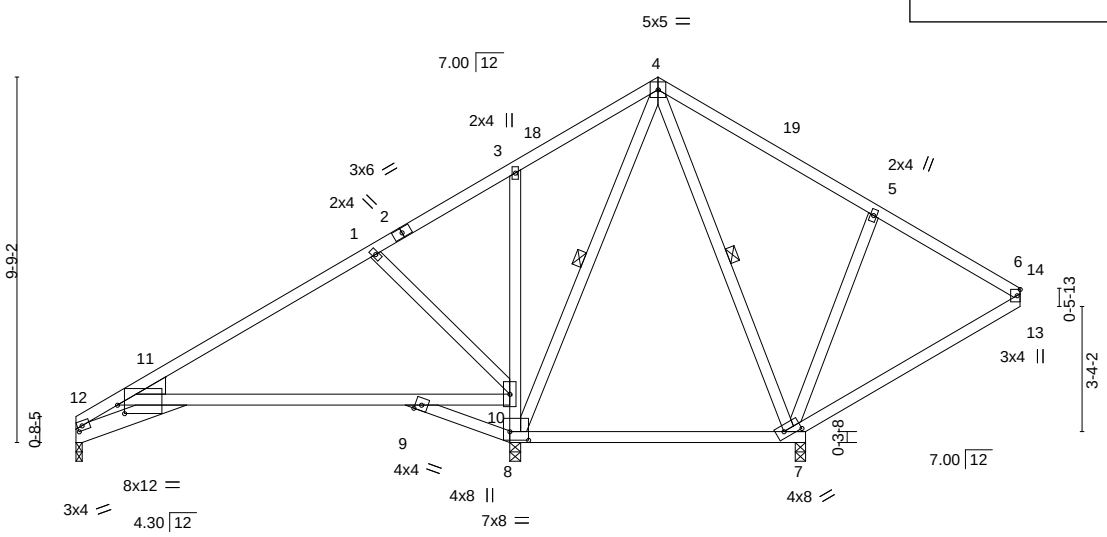


Plate Offsets (X,Y)-- [7:0-5-8,0-2-0], [8:0-6-0,0-2-12], [11:0-2-4,0-2-11], [12:0-1-8,0-1-8]

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	0.49	Vert(LL)	-0.09	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.18	7-8	>512	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 116 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
11-12: 2x6 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x6 SPF No.2

BRACING-
TOP CHORD Sheathed.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-8, 4-7

REACTIONS. (size) 12=0-2-0, 8=0-3-8, 7=0-3-5
Max Horz 12=242(LC 9)
Max Uplift 12=-103(LC 10), 8=-395(LC 12), 7=-194(LC 13)
Max Grav 12=146(LC 9), 8=1699(LC 19), 7=715(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-11=-231/659, 1-2=-212/750, 2-3=-207/850, 3-18=-149/731, 4-18=-133/830, 4-19=-11/354
BOT CHORD 11-15=-276/216, 9-11=-444/35, 8-9=-620/102
WEBS 1-10=-366/183, 8-10=-474/255, 4-8=-1000/195, 4-7=-175/334, 5-7=-370/182

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-9-7 to 4-9-7, Interior(1) 4-9-7 to 15-6-8, Exterior(2R) 15-6-8 to 18-6-8, Interior(1) 18-6-8 to 25-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearing at joint(s) 12 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 at joint(s) 12.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 103 lb uplift at joint 12, 395 lb uplift at joint 8 and 194 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR	J45087405
2685114	GR1	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 07:58:53 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-LFwk33HXdvmlJDKEcoMWGC3w2cr37N26WPrRqwzd2CV

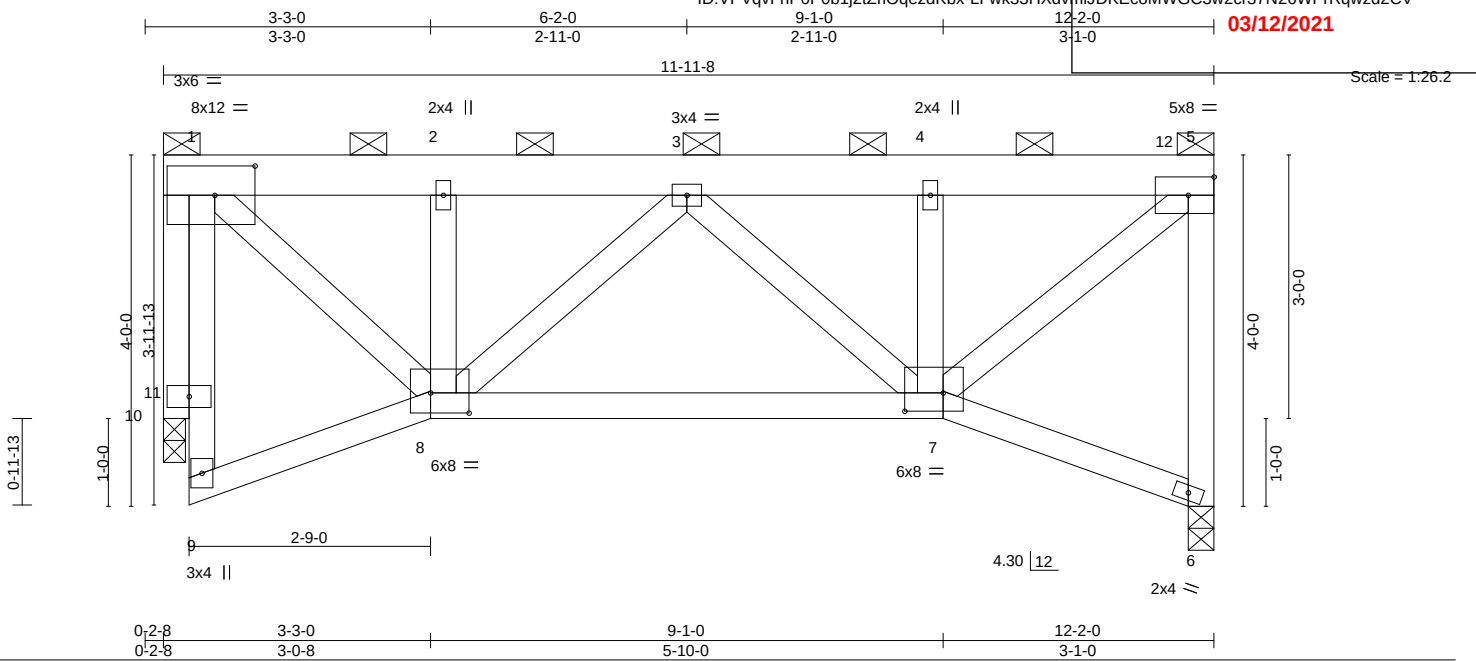


Plate Offsets (X,Y)-- [1:0-5-8,0-4-0], [7:0-5-4,0-2-8], [8:0-5-4,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.04	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.10	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	-0.07	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 146 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 11=0-3-0
Max Horz 6=100(LC 7)
Max Uplift 6=-666(LC 5), 11=-667(LC 4)
Max Grav 6=4657(LC 15), 11=4677(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 5-6=-4626/672, 1-2=-4183/597, 2-3=-4318/618, 3-4=-4392/650, 4-5=-4249/629
BOT CHORD 7-8=-832/5573, 8-9=-80/489
WEBS 5-7=-787/5603, 4-7=-2588/408, 2-8=-2435/378, 1-8=-755/5281, 3-7=-1602/257, 3-8=-1680/272, 1-11=-4708/672

NOTES-
1) n/a
2) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 2 rows at 0-9-0 oc, 2x6 - 3 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
3) 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.
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) 6, 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 100 lb uplift at joint(s) except (jt=lb) 6=666, 11=667.
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) Girder carries tie-in span(s): 34-8-0 from 0-0-0 to 11-8-0
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

March 8,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR	J45087405
2685114	GR1	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-12=-798, 5-12=-70, 6-7=-20, 7-8=-20, 8-9=-20

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	GR2	COMMON GIRDER	1	2	Job Reference (optional)

I45087406

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 3 07:39:55 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-pSU6GPI9ODucxNvQAVtlpPc?h0F4sqCGl3a?MMzd2CU

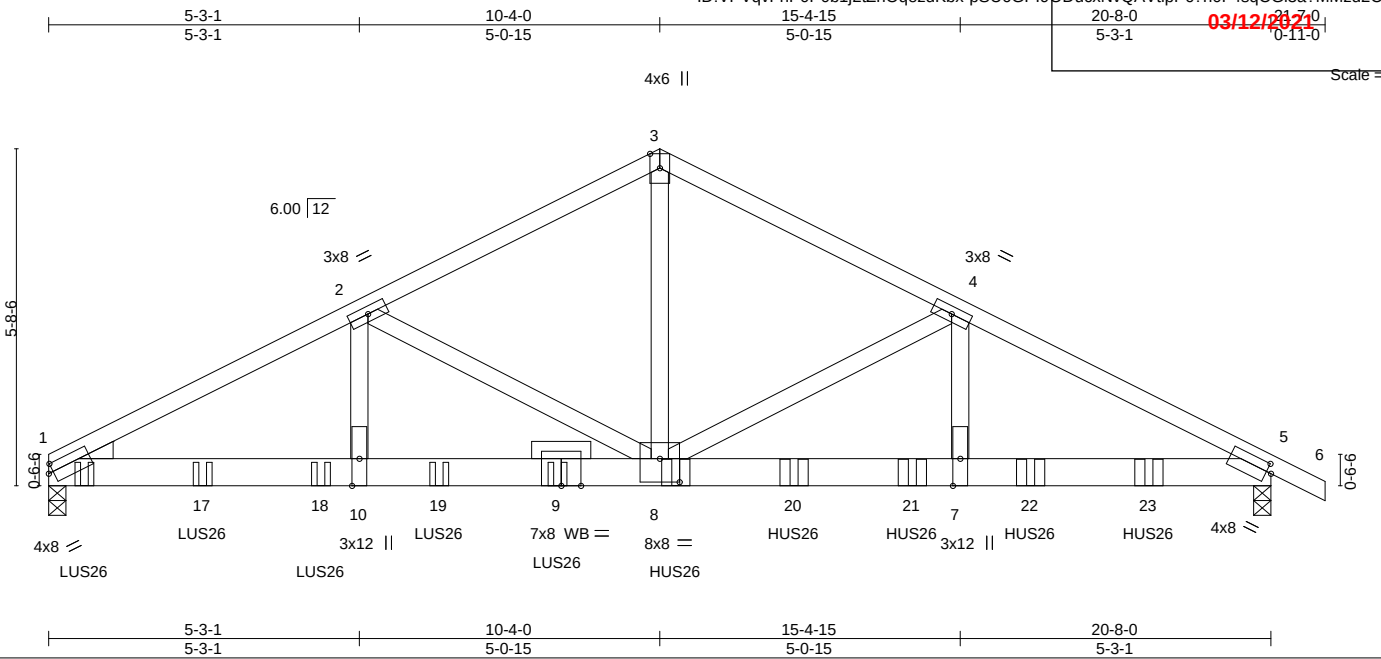


Plate Offsets (X,Y)-- [1:0-1-0,0-1-12], [5:0-1-0,0-1-12], [8:0-4-0,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.15	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.26	8-10	>962	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.06	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 190 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except*
5-9: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-96(LC 13)
Max Uplift 1=-578(LC 8), 5=-535(LC 9)
Max Grav 1=5927(LC 2), 5=5274(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-9397/926, 2-3=-6547/669, 3-4=-6546/670, 4-5=-9300/916
BOT CHORD 1-10=-842/8352, 8-10=-842/8352, 7-8=-743/8264, 5-7=-743/8264
WEBS 3-8=-500/5492, 4-8=-2824/380, 4-7=-166/2308, 2-8=-2925/390, 2-10=-175/2395

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 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) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=578, 5=535.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-7-4 from the left end to 8-7-4 to connect truss(es) to back face of bottom chord.
9) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 10-7-4 from the left end to 18-7-4 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

March 8,2021

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR	J45087406
2685114	GR2	COMMON GIRDER	1	2	Job Reference (optional)	

LOAD CASE(S) Standard

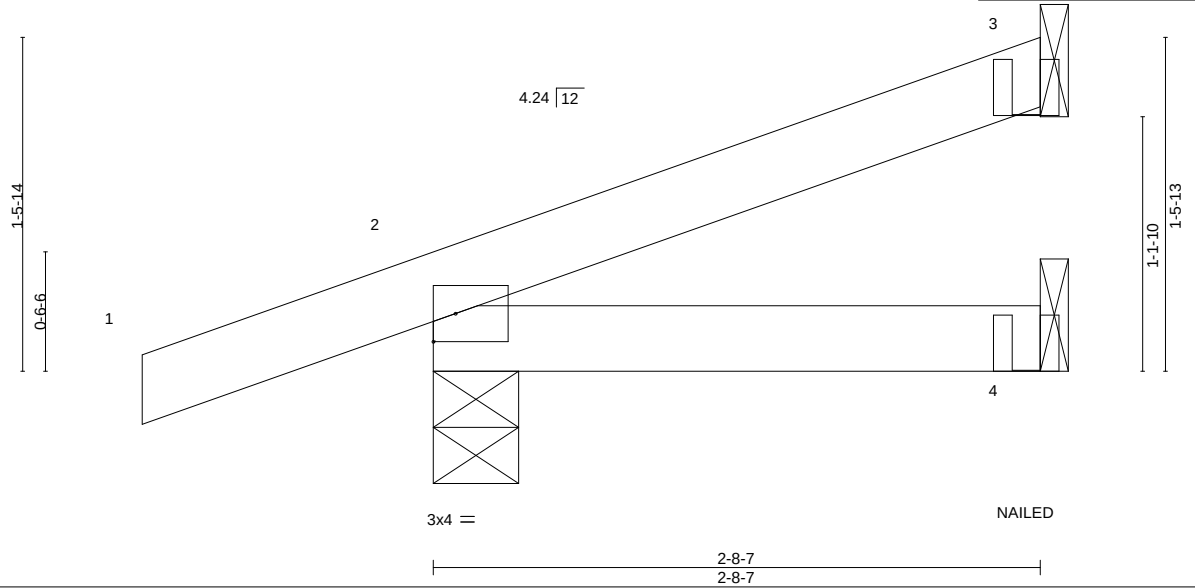
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-6=-70, 11-14=-20
   Concentrated Loads (lb)
   Vert: 9=-910(B) 8=-909(B) 13=-914(B) 17=-910(B) 18=-910(B) 19=-910(B) 20=-909(B) 21=-909(B) 22=-909(B) 23=-909(B)

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	JD1	Diagonal Hip Girder	2	1	Job Reference (optional)

J45087407

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 3 07:55:31 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-pSU6GPI9ODucxNvQAVtlpPc7u0Ncs_jGl3a?MMzd2CU

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	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: 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 2-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=57(LC 8)
Max Uplift 3=-37(LC 12), 2=-72(LC 8)
Max Grav 3=74(LC 1), 2=232(LC 1), 4=51(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 Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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: 1-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 3=-2(F) 4=-4(F)

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

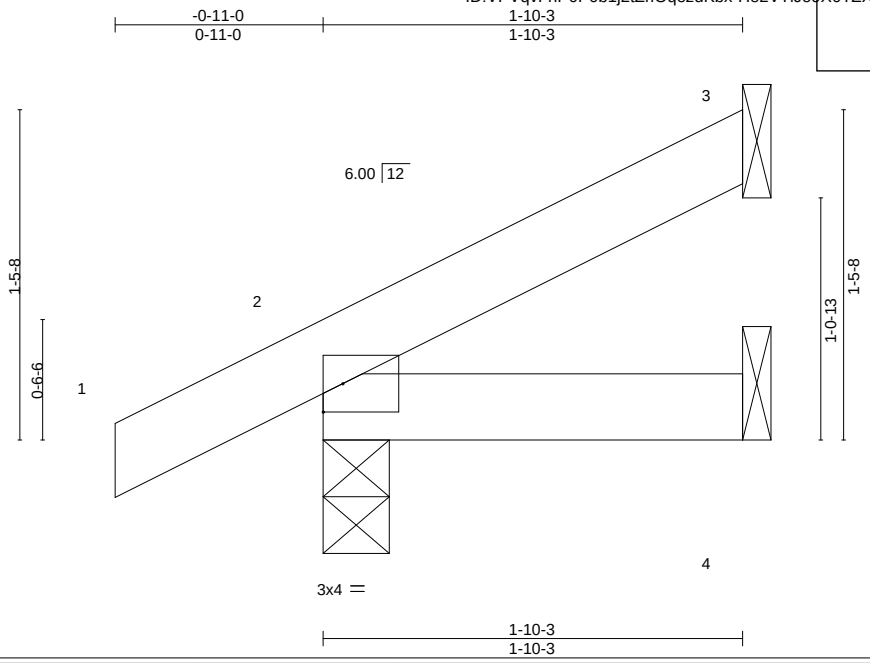
March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	JD2	Jack-Open	2	1	Job Reference (optional)

I45087408

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:00 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-He2VTlJo9X0TZXUdkDP_Md9JSQjGbRzP_jKYuozd2CT



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

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-10-3 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=48(LC 12)
Max Uplift 3=-25(LC 12), 2=-25(LC 12)
Max Grav 3=49(LC 1), 2=163(LC 1), 4=32(LC 3)

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

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

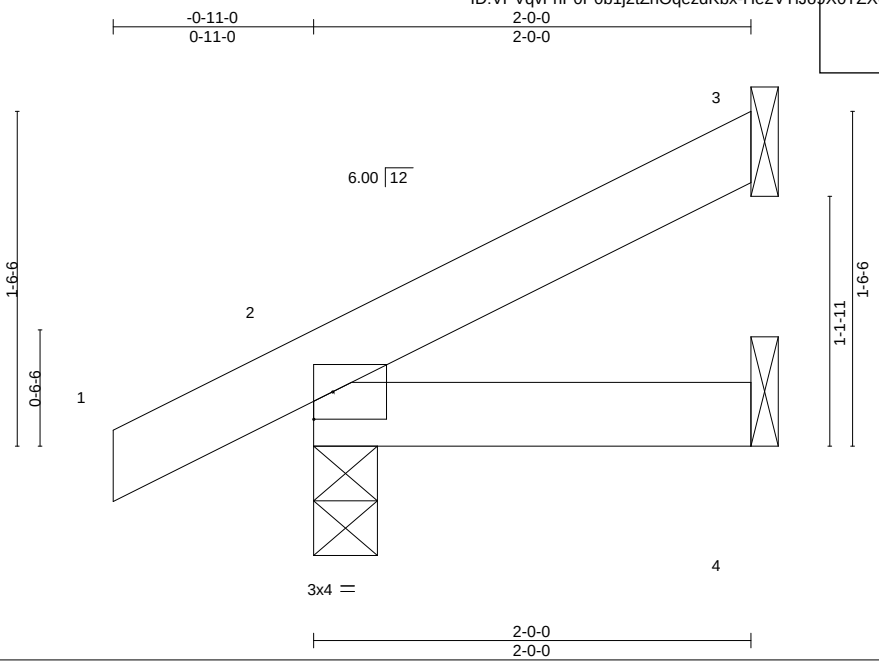
March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	JD3	Jack-Open	3	1	Job Reference (optional)

I45087409

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:00 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-He2VTlJo9X0TZXUdkDP_Md9JSQjBbRzP_jKYuozd2CT



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	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: 6 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=51(LC 12)
Max Uplift 3=-27(LC 12), 2=-25(LC 12)
Max Grav 3=54(LC 1), 2=168(LC 1), 4=35(LC 3)

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

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

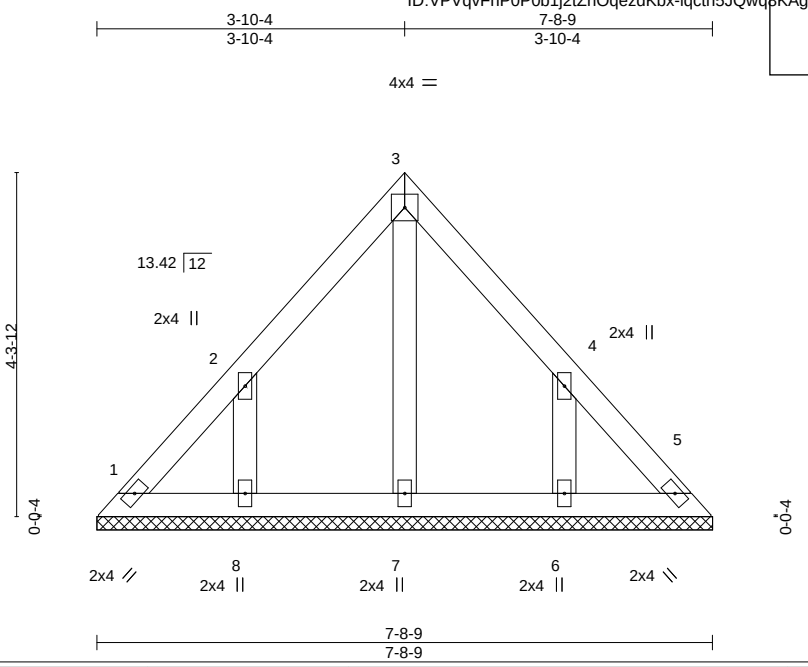
March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	LG1	GABLE	1	1	Job Reference (optional)

I45087410

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:01 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-lqcth5JQwq8KAg3pHwwDuqhUDq3TKuoYCN36RFzd2CS



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	10.0	Lumber DOL	1.15	BC	0.02	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 7-8-9.
(lb) - Max Horz 1=-96(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-139(LC 12), 6=-139(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-
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 3-10-4, Exterior(2R) 3-10-4 to 6-10-4 , Interior(1) 6-10-4 to 7-4-10 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) 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=139, 6=139.
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	M1	Common Supported Gable	1	1	Job Reference (optional)

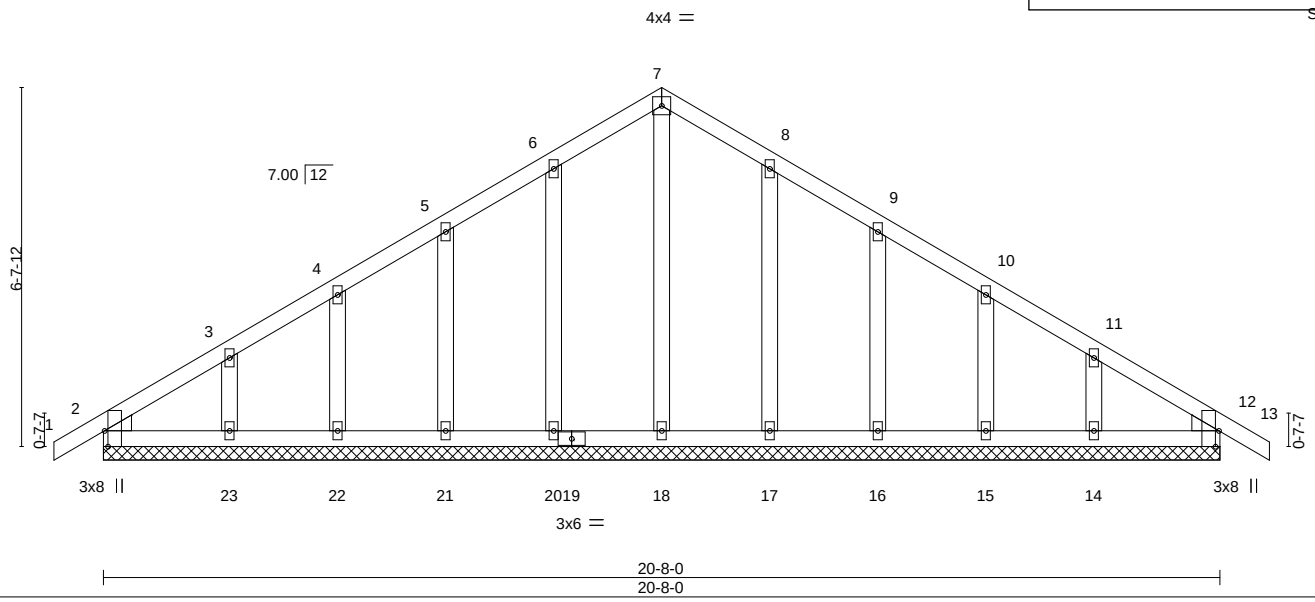
I45087411

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:02 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-E1AFuRK2g8GBoqe?reRSR2Ef_EPZ3K0iR1pfzhzd2CR

0-11-0 10-4-0 20-8-0 21-7-8
0-11-0 10-4-0 10-4-0 0-11-0

Scale = 1:42.6



20-8-0
20-8-0

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [12:0-3-8,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	0.06	Vert(LL)	-0.00	12	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	12	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 91 lb	FT = 20%

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

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

REACTIONS. All bearings 20-8-0.
(lb) - Max Horz 2=-154(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 17, 16, 15, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 18, 20, 21, 22, 23, 17, 16, 15, 14, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-4-0, Exterior(2N) 2-4-0 to 10-4-0, Corner(3R) 10-4-0 to 13-4-0, Exterior(2N) 13-4-0 to 21-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 2-0-0 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, 20, 21, 22, 23, 17, 16, 15, 14.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
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.

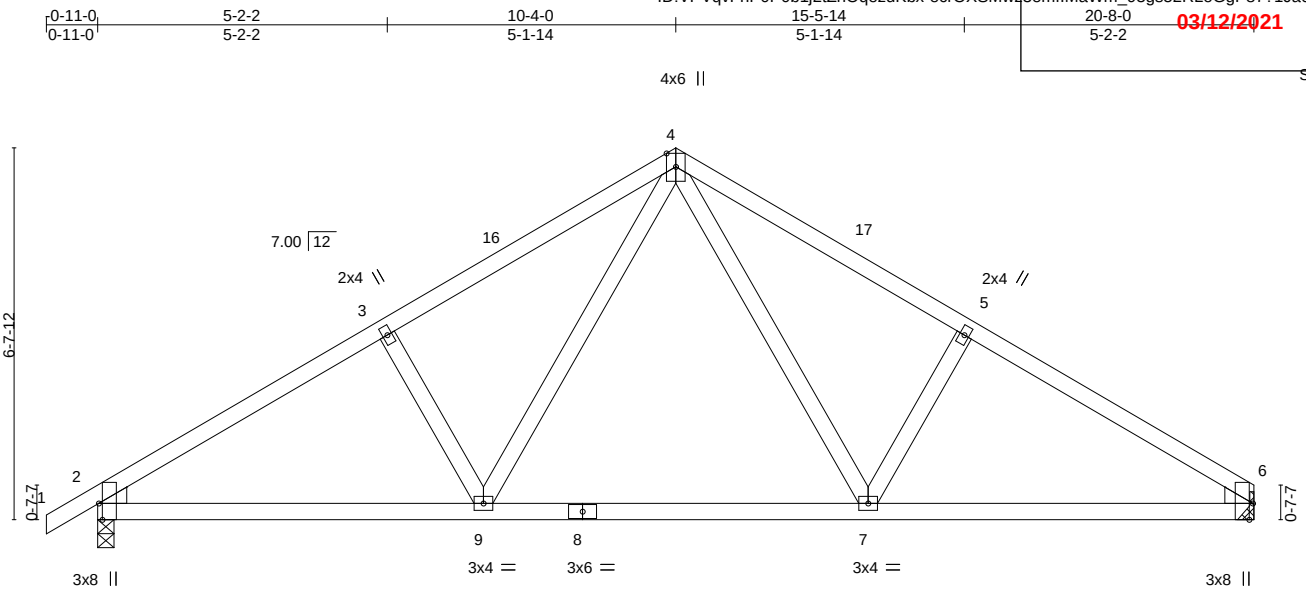
March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	M2	Common	6	1	Job Reference (optional)

I45087412

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:05 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ecrOXSMwz3emfIMaWm_93gs52RLoGgP87?1Ja0zd2CO



Scale = 1:41.2

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [6:0-3-8,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	0.26	Vert(LL)	-0.06	7-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.12	7-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 77 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 6=Mechanical
Max Horz 2=150(LC 9)
Max Uplift 2=-130(LC 12), 6=-112(LC 13)
Max Grav 2=996(LC 1), 6=929(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1376/178, 3-4=-1223/214, 4-5=-1228/216, 5-6=-1381/180
BOT CHORD 2-9=-182/1117, 7-9=-45/768, 6-7=-96/1123
WEBS 4-7=-114/471, 5-7=-319/175, 4-9=-112/464, 3-9=-314/174

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 10-4-0, Exterior(2R) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 20-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=130, 6=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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	M3	Common	5	1	Job Reference (optional)

I45087413

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 01 08:07:00 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-6oPmkoNZkNmdHSxm4TVObuPGorh1?7fHMfnt6Szd2CN

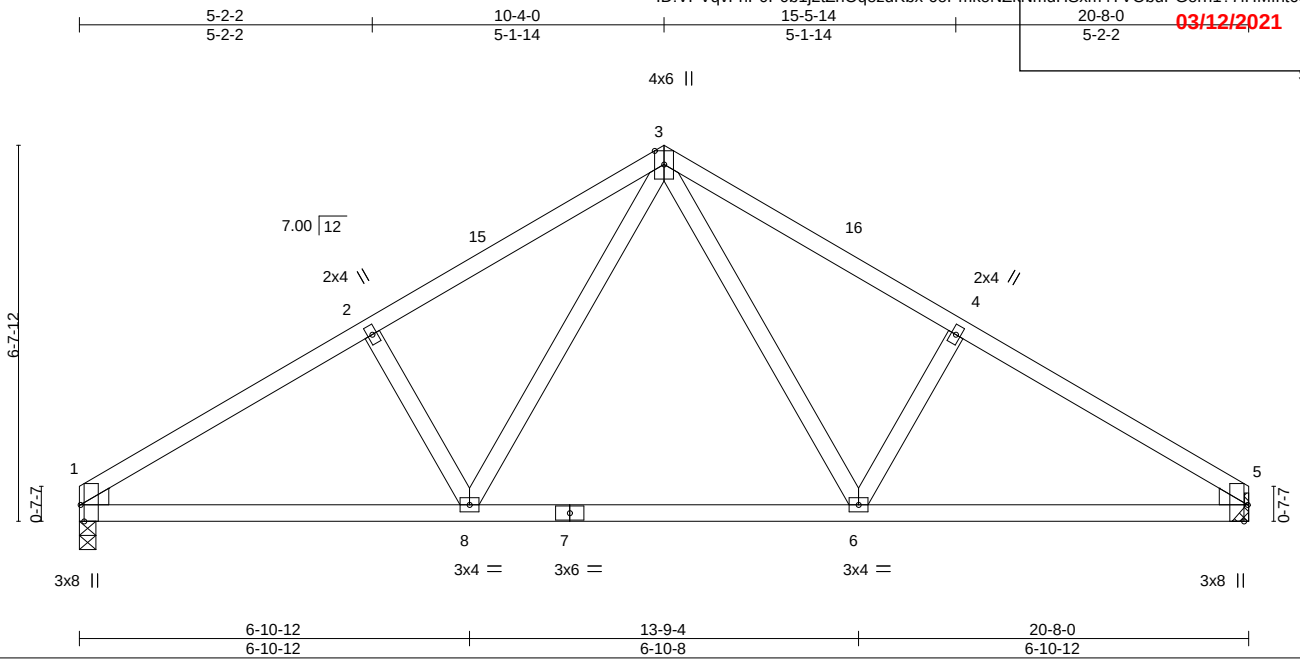


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [5:0-3-8,Edge]

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	0.26	Vert(LL)	-0.05	6-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.12	6-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 76 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
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=Mechanical
Max Horz 1=-141(LC 8)
Max Uplift 1=-112(LC 12), 5=-112(LC 13)
Max Grav 1=930(LC 1), 5=930(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1383/180, 2-3=-1230/216, 3-4=-1230/216, 4-5=-1383/180
BOT CHORD 1-8=-184/1125, 6-8=-45/770, 5-6=-96/1125
WEBS 3-6=-114/471, 4-6=-319/175, 3-8=-114/471, 2-8=-319/175

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 10-4-0, Exterior(2R) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 20-8-0 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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	M11	GABLE	1	1	Job Reference (optional)

I45087414

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 03 10:03:03 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-iDkd6mLgRSO2Q_CBPLyhzFnqldloonkrghYCV7zd2CQ

0-11-0 10-4-0 20-8-0 21-7-0
0-11-0 10-4-0 10-4-0 0-11-0

Scale = 1:38.3

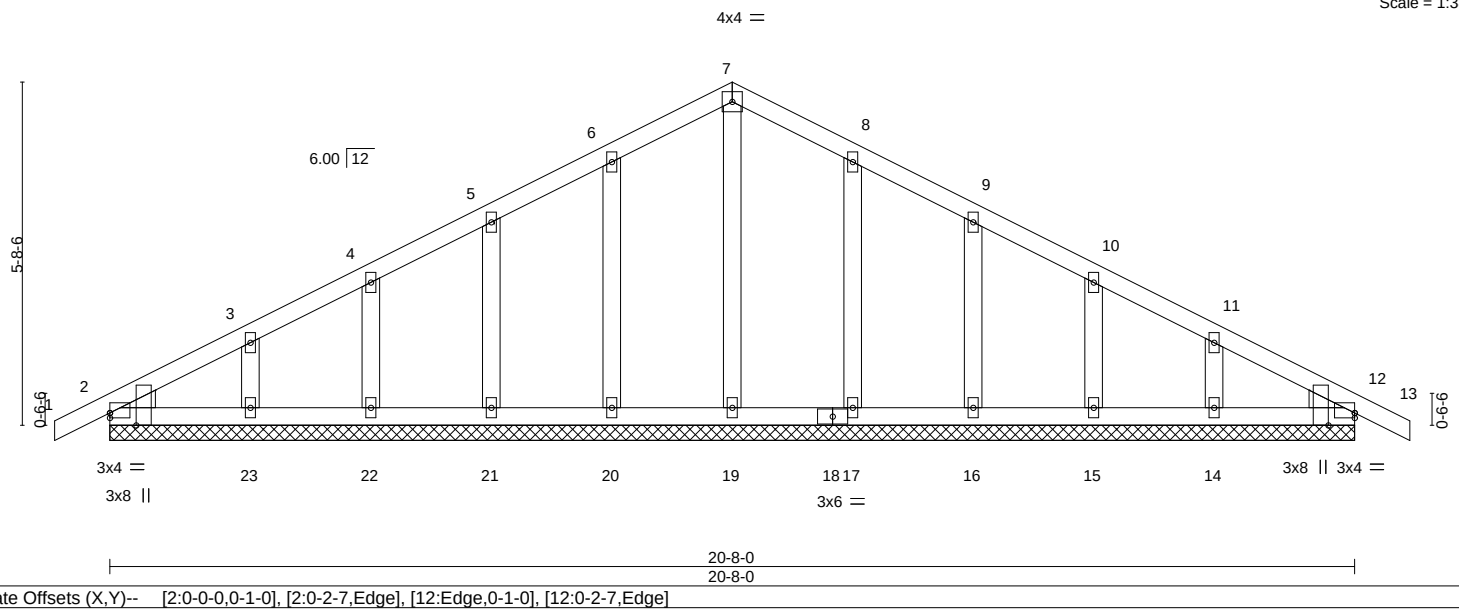


Plate Offsets (X,Y)-- [2:0-0-0,0-1-0], [2:0-2-7,Edge], [12:Edge,0-1-0], [12:0-2-7,Edge]

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	0.05	Vert(LL)	-0.00	12	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	12	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 84 lb	FT = 20%

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

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

REACTIONS. All bearings 20-8-0.
(lb) - Max Horz 2=89(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 17, 16, 15, 14, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 23, 17, 16, 15, 14, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-4-0, Exterior(2N) 2-4-0 to 10-4-0, Corner(3R) 10-4-0 to 13-4-0, Exterior(2N) 13-4-0 to 21-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 2-0-0 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, 20, 21, 22, 23, 17, 16, 15, 14, 12.
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	M12	Common	4	1	Job Reference (optional)

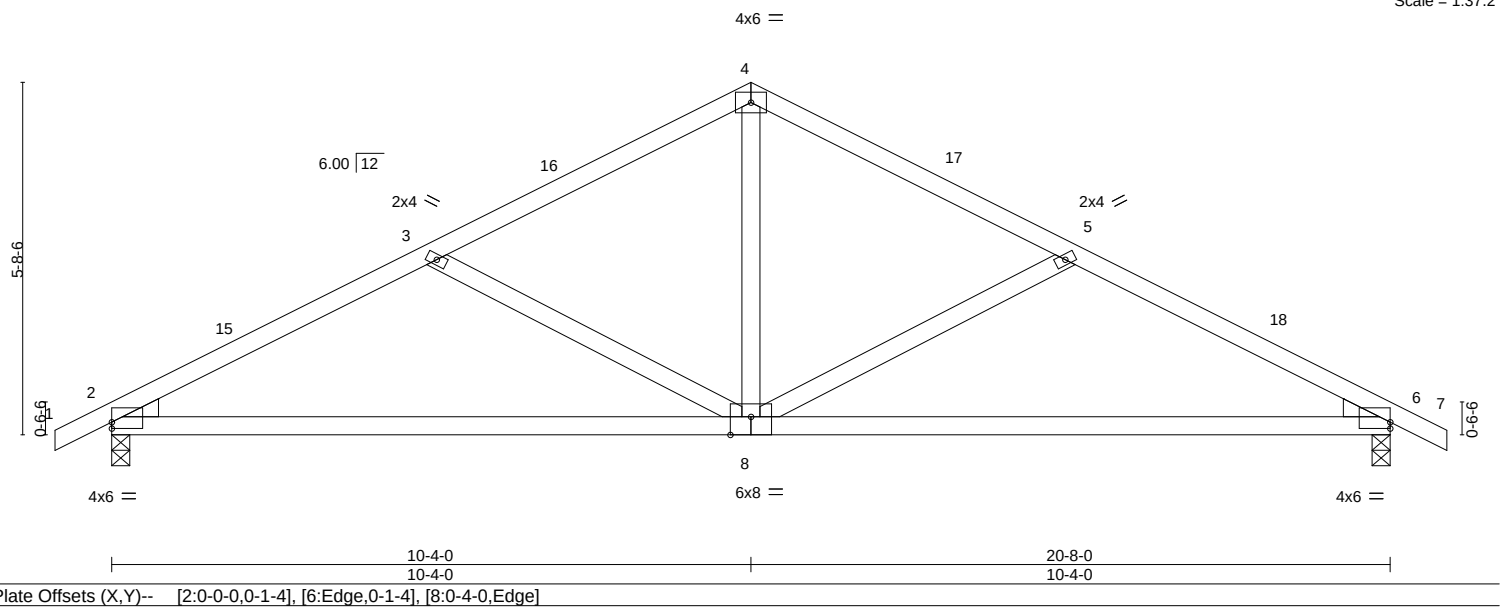
I45087415

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:04 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-APH?J6MICIWv18nOz3TwWTJx11vnXAu?uLIm1azd2CP

-0-11-0 5-3-1 10-4-0 15-4-15 20-8-0 21-7-0
0-11-0 5-3-1 5-0-15 5-0-15 5-3-1 0-11-0

Scale = 1:37.2



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

Plate Offsets (X,Y)-- [2:0-0-0,0-1-4], [6:Edge,0-1-4], [8:0-4-0,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	0.28	Vert(LL)	-0.17	8-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.35	8-11	>705	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 73 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=89(LC 12)
Max Uplift 2=-134(LC 12), 6=-134(LC 13)
Max Grav 2=994(LC 1), 6=994(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1524/304, 3-4=-1135/238, 4-5=-1135/238, 5-6=-1524/304
BOT CHORD 2-8=-206/1297, 6-8=-198/1297
WEBS 4-8=-64/585, 5-8=-432/192, 3-8=-432/191

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 10-4-0, Exterior(2R) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 21-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=134, 6=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) 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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

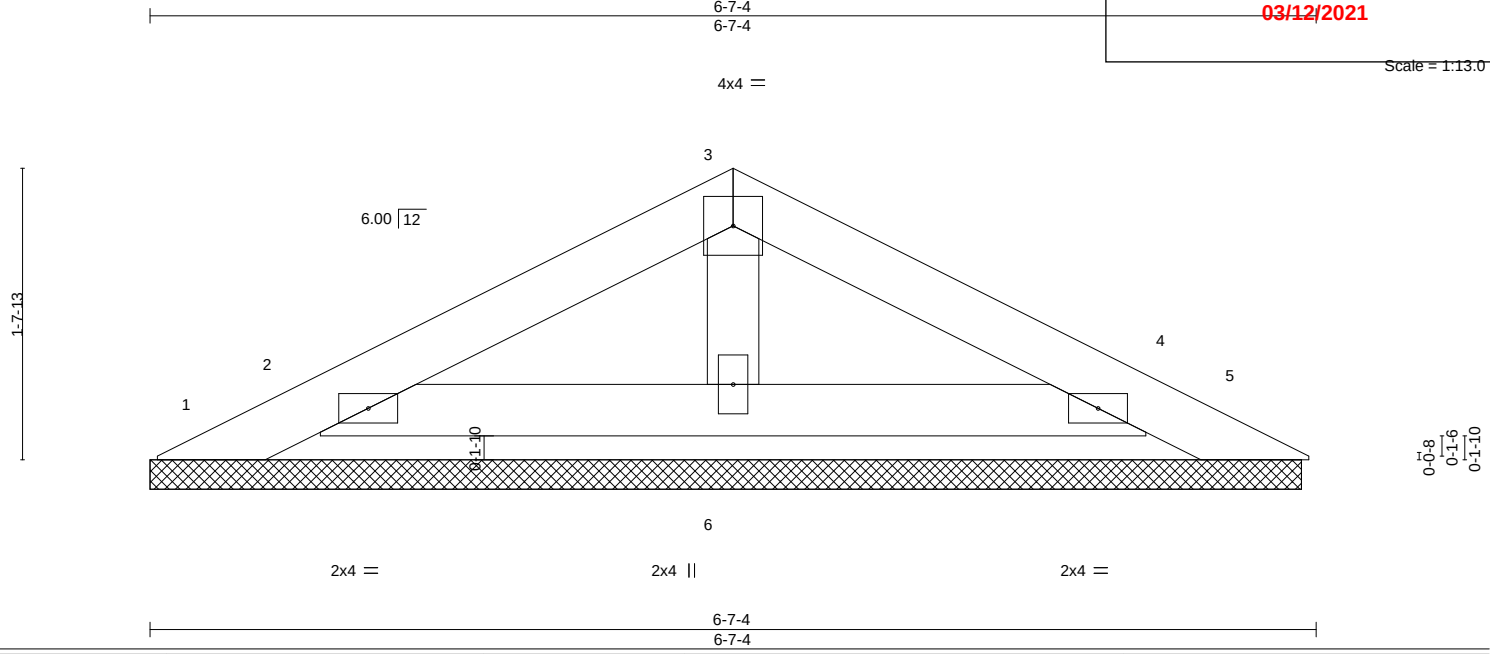
Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	PB1	Piggyback	2	1	Job Reference (optional)

I45087416

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:07 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-a_z8x8OBVguUvbWzeB1d85xUOF6XkbTRbJWQeuzd2CM

Scale = 1:13.0



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	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	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
WEBS 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 6-6-4.
(lb) - Max Horz 1=-23(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4, 6

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, 5, 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.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	PB2	Piggyback	19	1	J45087417

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:03 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-2BXW9UPpG_0LWl59CuYsgJUf2ePsT2yapzGzALzd2CL

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

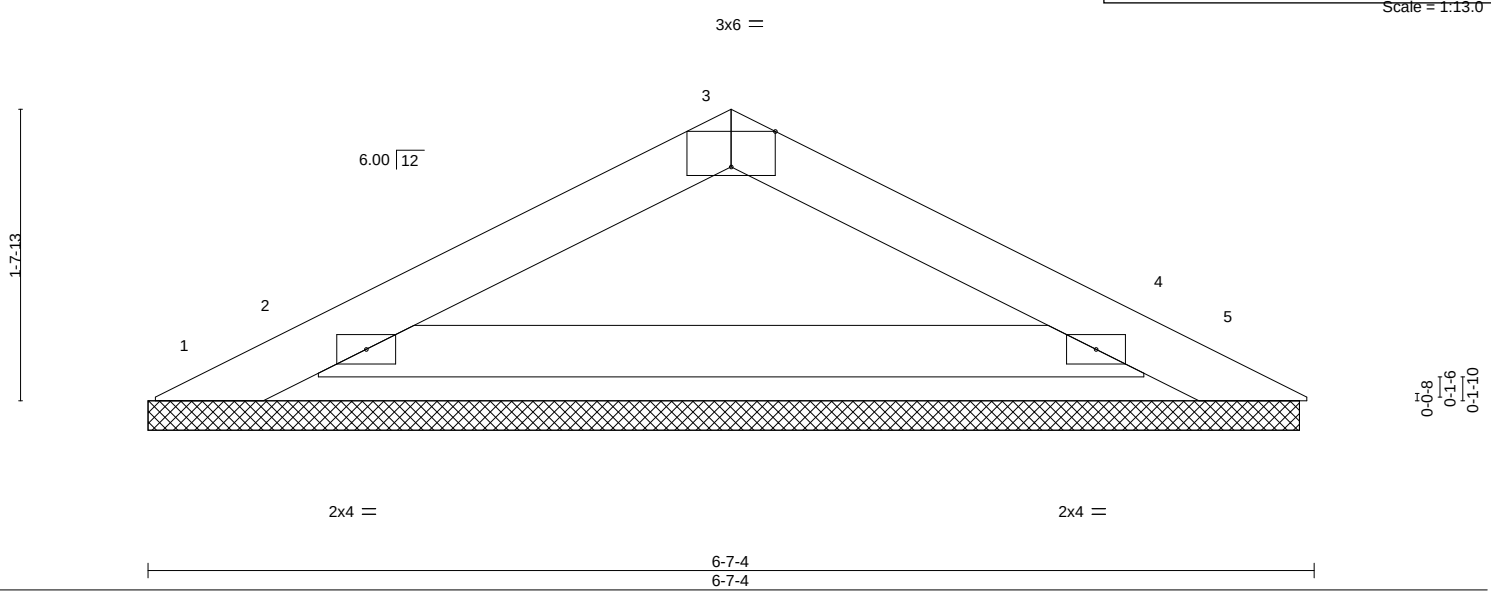


Plate Offsets (X,Y)-- [3:0-3-0,Edge]

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	n/a	-	n/a	999		
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: 14 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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 6-6-4.
(lb) - Max Horz 1=-23(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=307(LC 1), 4=307(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, 5, 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.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

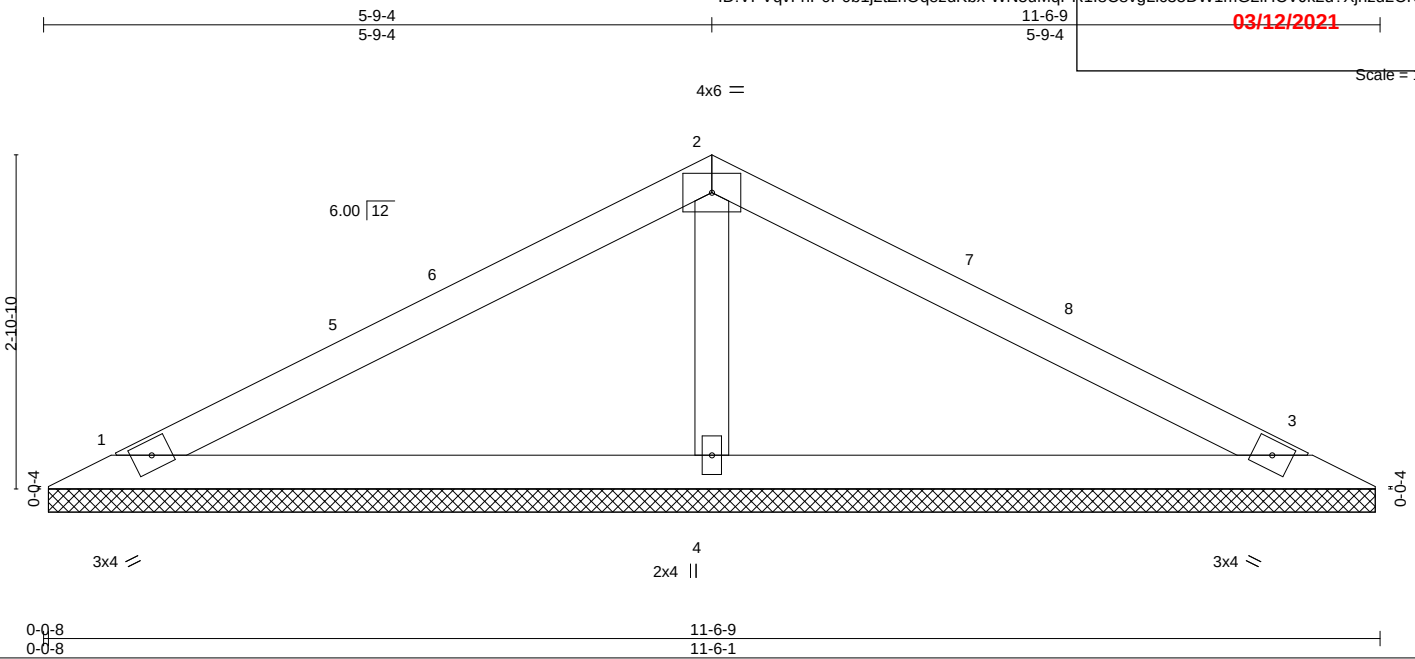
March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V1	Valley	1	1	Job Reference (optional)

J45087418

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:03 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-WN5uMqPR1I8C8vgLlc35DW1mG2lHCVJk2d?XjnzdCK



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 29 lb	FT = 20%

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

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

REACTIONS. (size) 1=11-5-9, 3=11-5-9, 4=11-5-9
Max Horz 1=41(LC 12)
Max Uplift 1=-40(LC 12), 3=-48(LC 13), 4=-36(LC 12)
Max Grav 1=214(LC 25), 3=214(LC 26), 4=504(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-348/169

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 5-9-4, Exterior(2R) 5-9-4 to 8-9-4, Interior(1) 8-9-4 to 10-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.

March 8,2021

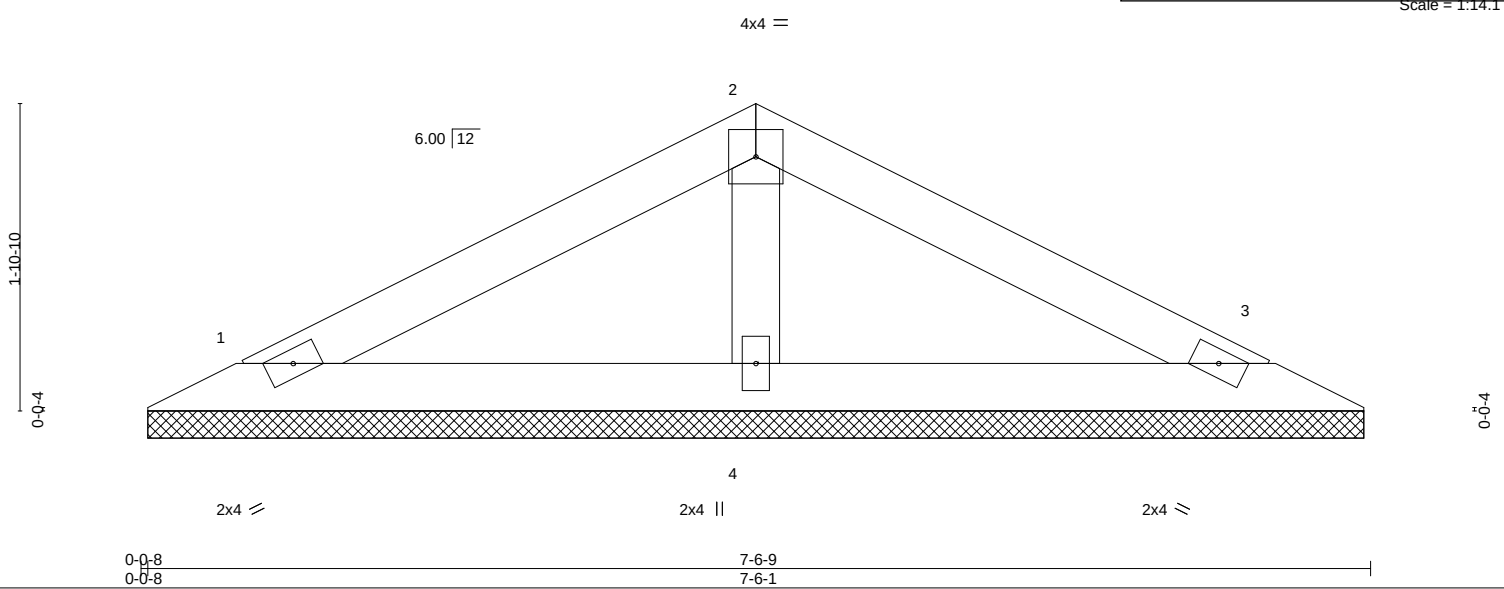
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V2	Valley	1	1	J45087419

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:10 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-pj0YqDVqNR1CU_ihgahk??p0YtA3LgWmfDCOTtzd2CD

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%

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

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

REACTIONS. (size) 1=7-5-9, 3=7-5-9, 4=7-5-9
Max Horz 1=-25(LC 13)
Max Uplift 1=-30(LC 12), 3=-35(LC 13), 4=-11(LC 12)
Max Grav 1=144(LC 1), 3=144(LC 1), 4=278(LC 1)

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

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

March 8,2021

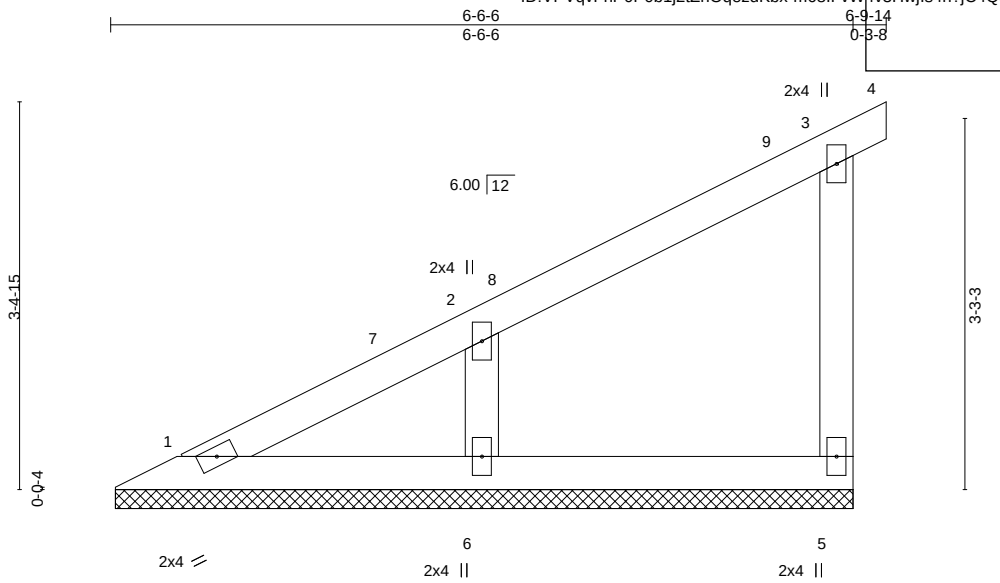
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V4	Valley	1	1	Job Reference (optional)

J45087420

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:13 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-m68IFvW4v3HwjIs4n?jC4QuMggrkpas36XhVXmzd2CB



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	3	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	4	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 20 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=6-5-14, 5=6-5-14, 6=6-5-14
Max Horz 1=115(LC 9)
Max Uplift 5=-35(LC 9), 6=-91(LC 12)
Max Grav 1=89(LC 20), 5=143(LC 1), 6=322(LC 1)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-9-14 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, 6.
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

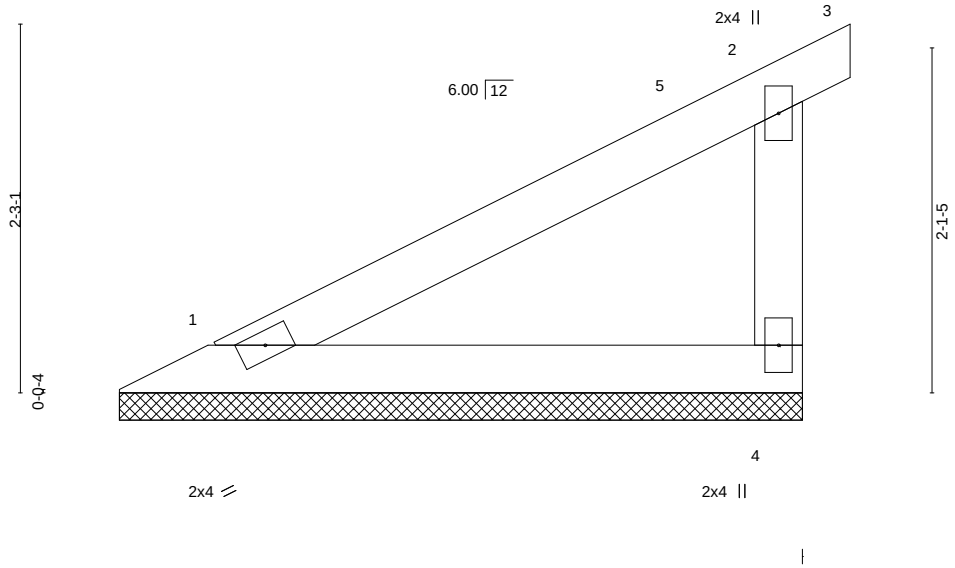
Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V5	Valley	1	1	Job Reference (optional)

J45087421

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:19 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ElhgTFXigMPnLRRGLiERddRWI4BEY1gCLBQ33Czd2CA

4-2-10 4-2-10 | 4-6-2 0-3-8

Scale = 1:14.1



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	0.21	Vert(LL)	-0.00	2	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	3	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-P							Weight: 11 lb	FT = 20%

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

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

REACTIONS. (size) 1=4-2-2, 4=4-2-2
Max Horz 1=72(LC 9)
Max Uplift 1=-16(LC 12), 4=-49(LC 12)
Max Grav 1=153(LC 1), 4=187(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-6-2 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, 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.

March 8,2021

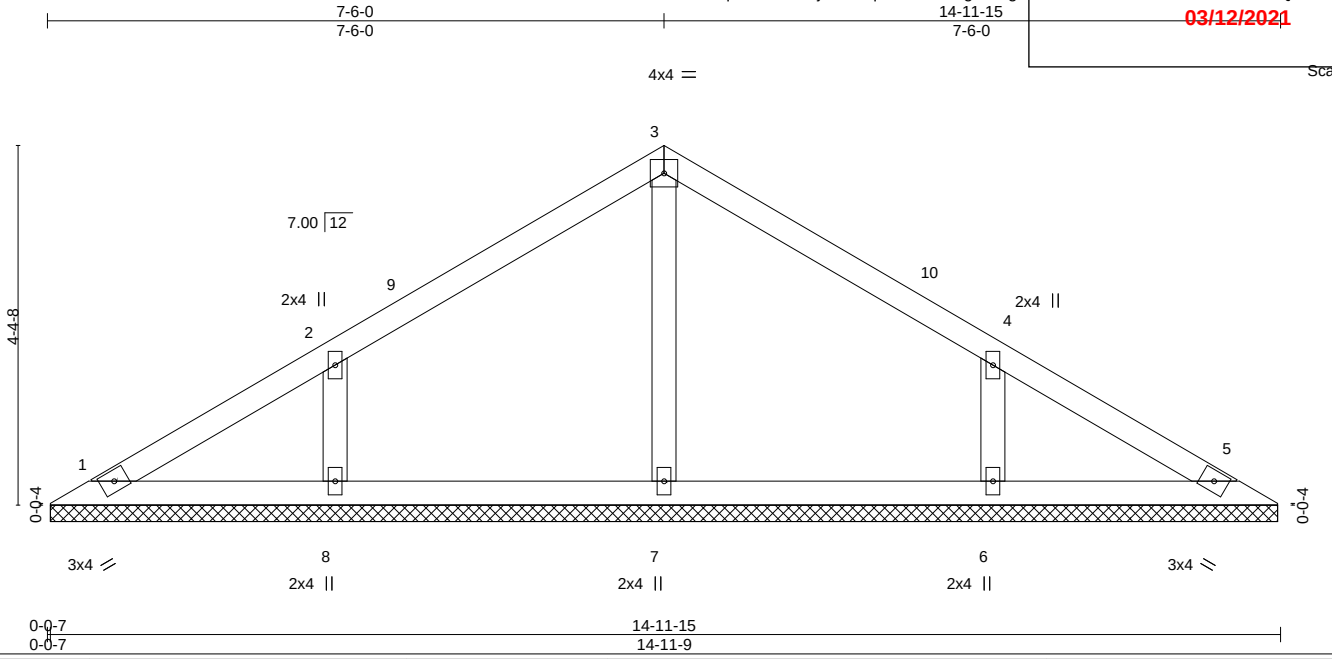
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V6	Valley	1	1	Job Reference (optional)

J45087422

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 3 08:07:19 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-EIhgTFXigMPnLRRGLiERddRXo4BZY0eCLBQ33Czd2CA



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 43 lb	FT = 20%

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

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

REACTIONS. All bearings 14-11-2.
(lb) - Max Horz 1=-95(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-124(LC 12), 6=-123(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=302(LC 1), 8=373(LC 25), 6=373(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-293/153, 4-6=-293/153

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) 0-6-8 to 3-6-0, Interior(1) 3-6-0 to 7-6-0, Exterior(2R) 7-6-0 to 10-6-0, Interior(1) 10-6-0 to 14-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=124, 6=123.
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.

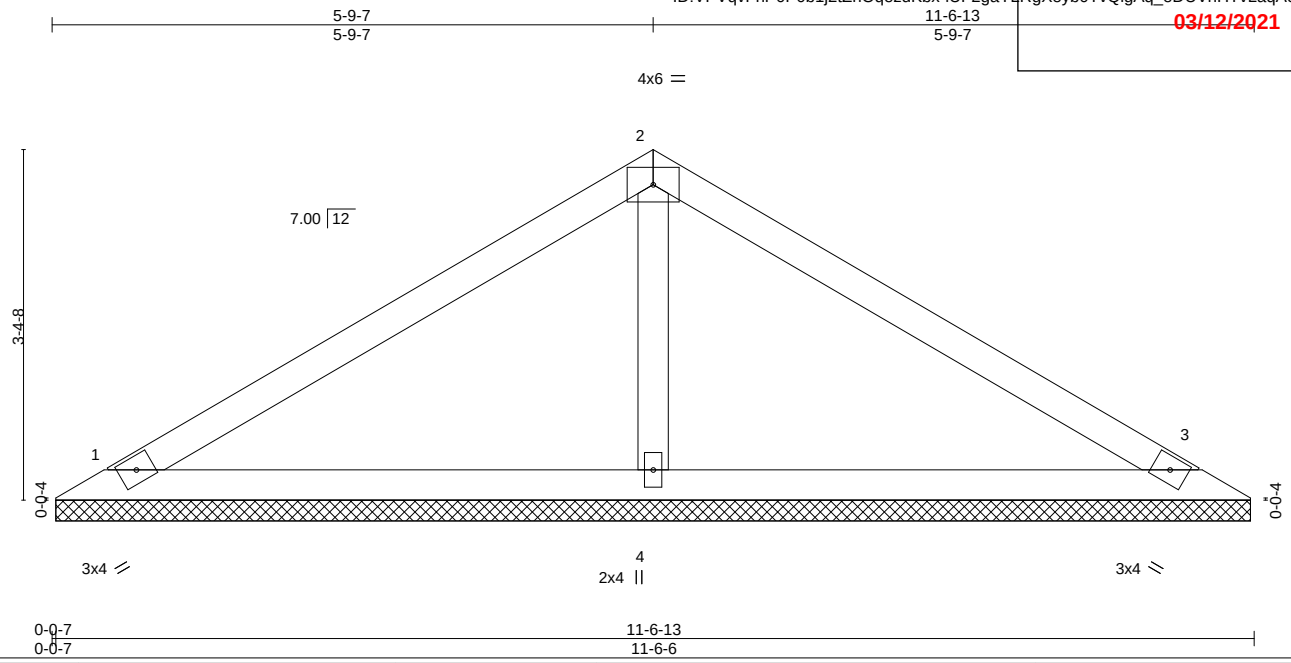
March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V7	Valley	1	1	Job Reference (optional)

J45087423

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 3 08:07:20 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-iUF2gaYLRgXeyb0TvQlgAq_eDUVhHTvLaqAccezd2C9



Scale = 1:22.2

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	0.39	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	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=11-5-15, 3=11-5-15, 4=11-5-15
Max Horz 1=-72(LC 10)
Max Uplift 1=-41(LC 12), 3=-50(LC 13), 4=-33(LC 12)
Max Grav 1=223(LC 25), 3=223(LC 26), 4=497(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-338/108

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) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 5-9-7, Exterior(2R) 5-9-7 to 8-9-7, Interior(1) 8-9-7 to 11-0-5 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, 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.

March 8,2021

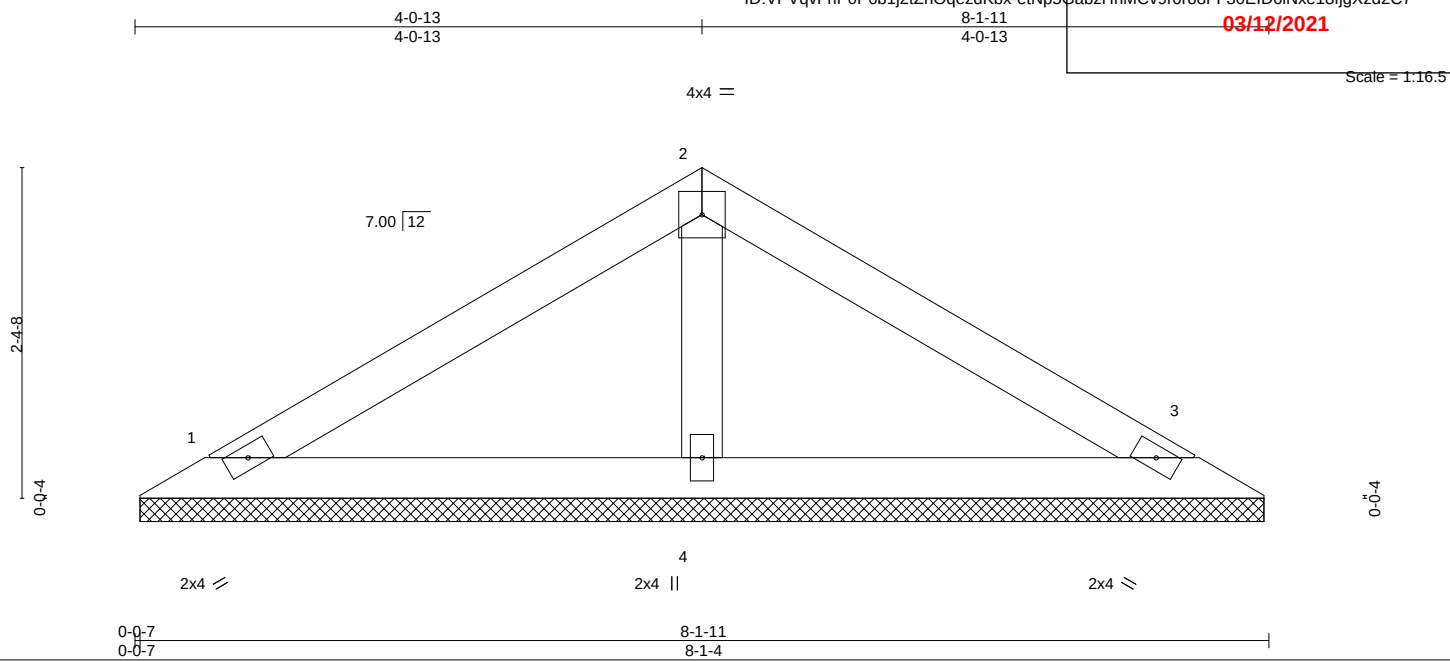
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V8	Valley	1	1	Job Reference (optional)

I45087424

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:22 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-etNp5GabzHnMCv9r0ro8FF30EID6lNxe18fjgXzd2C7



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	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 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=8-0-13, 3=8-0-13, 4=8-0-13
Max Horz 1=48(LC 9)
Max Uplift 1=-34(LC 12), 3=-41(LC 13), 4=-9(LC 12)
Max Grav 1=167(LC 1), 3=167(LC 1), 4=302(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 4-0-13, Exterior(2R) 4-0-13 to 7-0-13, Interior(1) 7-0-13 to 7-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V9	Valley	1	1	Job Reference (optional)

J45087425

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 10:07:25 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-2S3xjIcTGCAw3MuQhzLrsuhaBVDKyk94j6tNHszd2C4

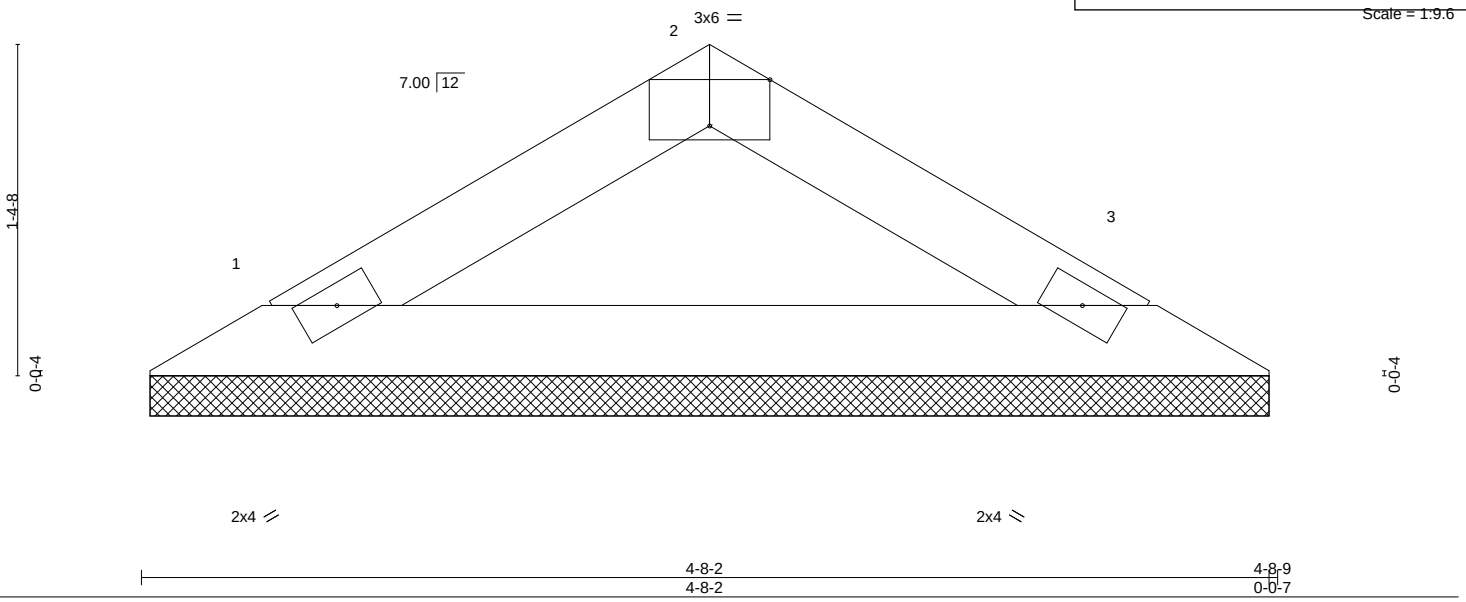


Plate Offsets (X,Y)-- [2:0-3-0,Edge]

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	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 4-8-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-7-11, 3=4-7-11
Max Horz 1=-25(LC 8)
Max Uplift 1=-20(LC 12), 3=-20(LC 13)
Max Grav 1=163(LC 1), 3=163(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.

March 8,2021

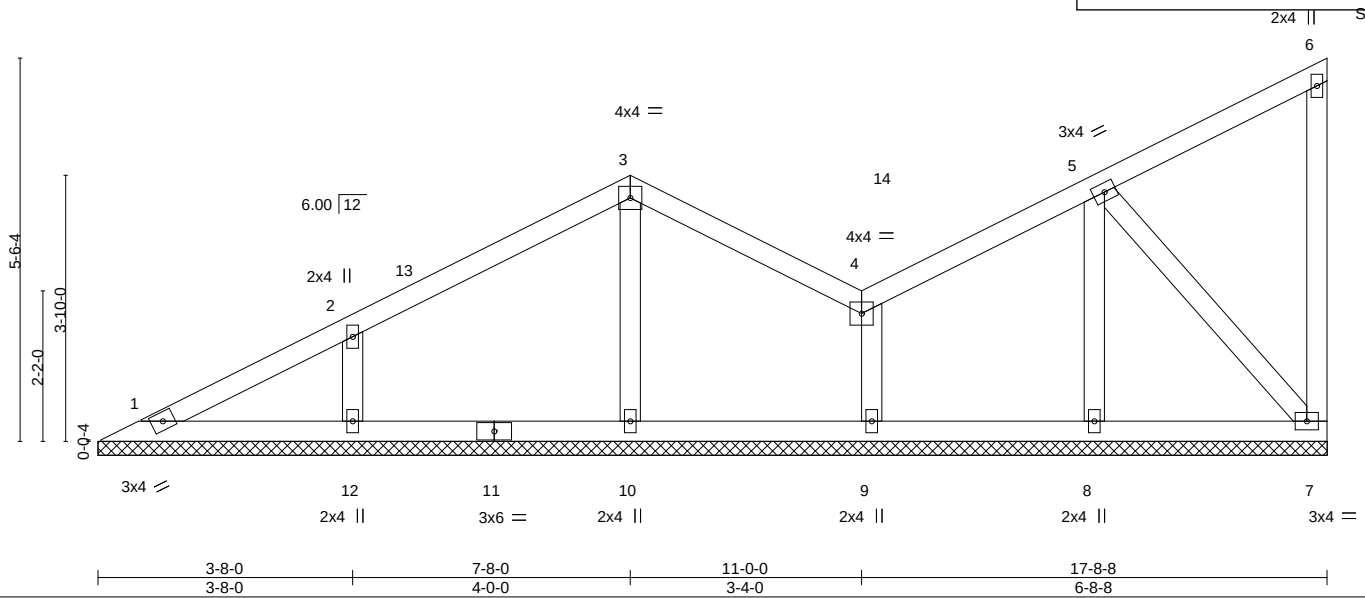
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V10	GABLE	1	1	J45087426

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 3 08:01:10 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-?ZfHaAQ3obH2m3FYJJaKmkZ_9S7bxybtHHl4FDzd2CJ

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 64 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. All bearings 17-8-8.
(lb) - Max Horz 1=188(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 7, 8, 10, 9 except 12=-109(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 8=301(LC 1), 10=280(LC 1), 9=315(LC 1), 12=372(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-9=-252/57, 2-12=-289/156

NOTES-

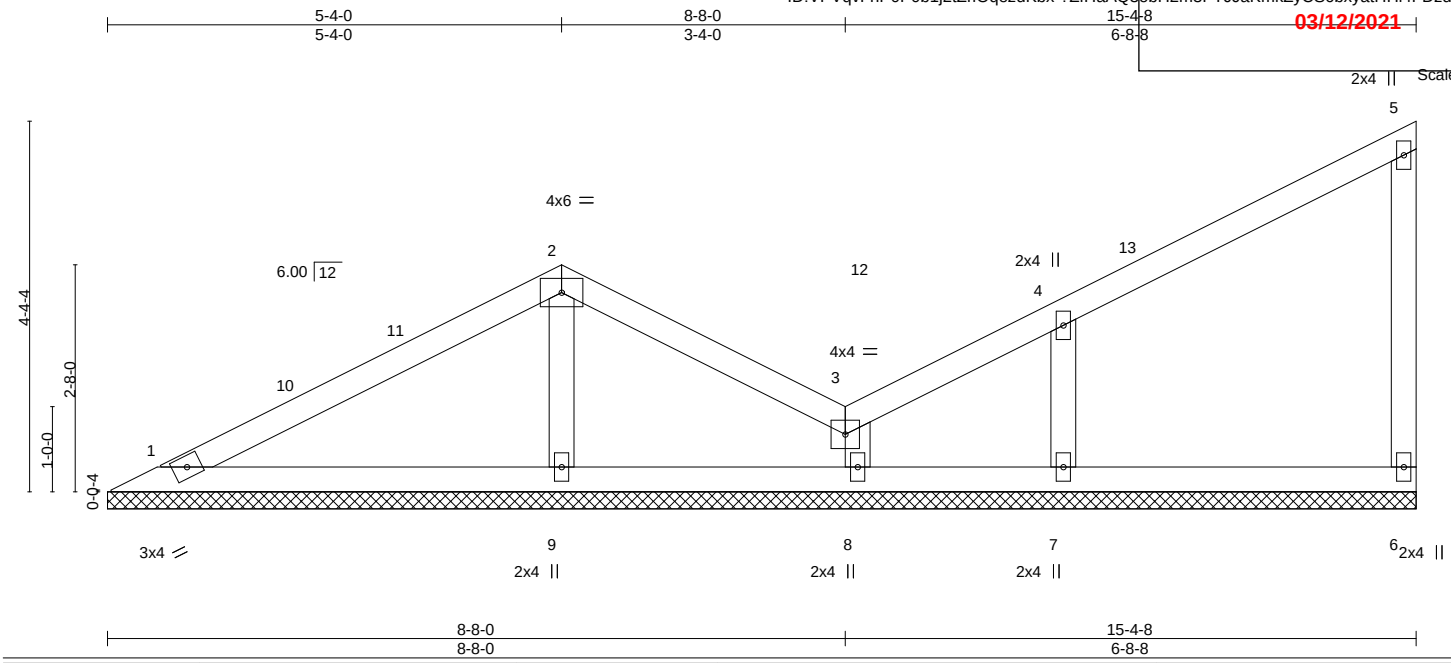
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-8-0, Interior(1) 3-8-0 to 7-8-0, Exterior(2R) 7-8-0 to 10-8-0, Interior(1) 10-8-0 to 17-6-12 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) 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) 7, 8, 10, 9 except (jt=lb) 12=109.
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V11	GABLE	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:10:10 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-?ZfHaAQ3obH2m3FYJJaKmkZyCS6bxyatHHl4FDzd2CJ



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 46 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. All bearings 15-4-8.
(lb) - Max Horz 1=149(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 7 except 9=-133(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 8 except 9=373(LC 1), 7=352(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-256/312, 4-7=-274/156

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-4-0, Exterior(2R) 5-4-0 to 8-4-0, Interior(1) 8-4-0 to 15-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) 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, 6, 7 except (jt=lb) 9=133.
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.

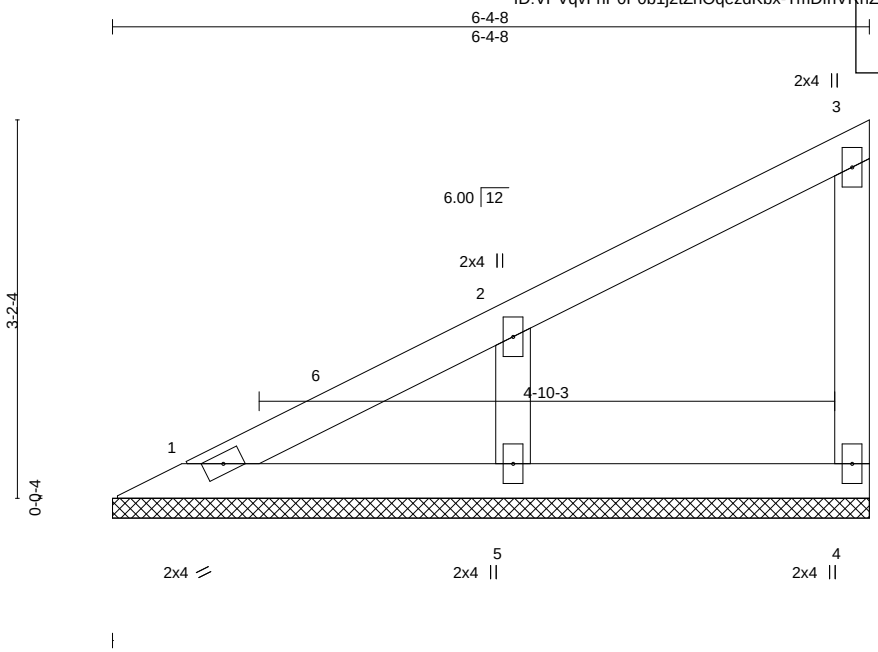
March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR	J45087428
2685114	V12	GABLE	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 3 14:11:11 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-TmDfnVRhZvPvNDqkt15ZIx69XsSAgP61VxUengzd2CI



Scale = 1:19.4

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%

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

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

REACTIONS. (size) 1=6-4-8, 4=6-4-8, 5=6-4-8
Max Horz 1=105(LC 9)
Max Uplift 4=-19(LC 9), 5=-89(LC 12)
Max Grav 1=94(LC 20), 4=98(LC 1), 5=315(LC 1)

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

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

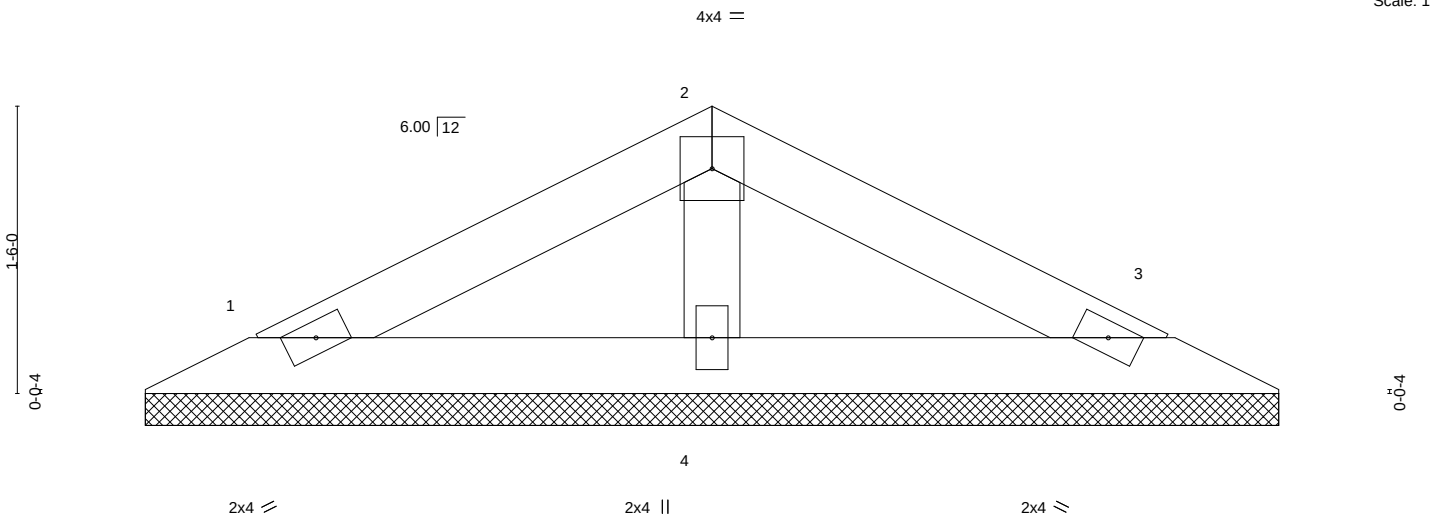
STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR	J45087429
2685114	V13	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:12 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-xym1?rSJKDXm?NOwRkcor9fLpGphPseAkbEBJ6zd2CH



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 14 lb	FT = 20%

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

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

REACTIONS. (size) 1=5-11-1, 3=5-11-1, 4=5-11-1
Max Horz 1=19(LC 12)
Max Uplift 1=-23(LC 12), 3=-26(LC 13), 4=-8(LC 12)
Max Grav 1=109(LC 1), 3=109(LC 1), 4=210(LC 1)

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

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

March 8,2021

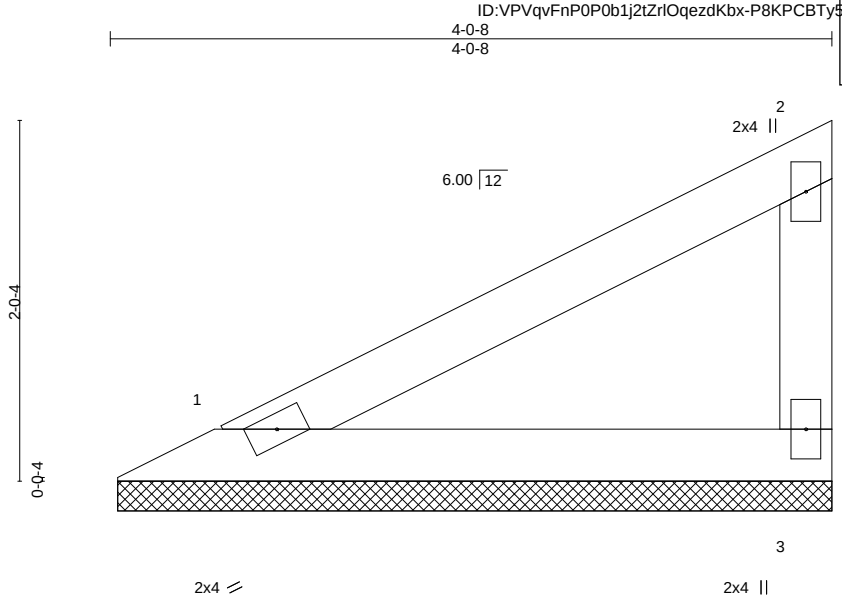
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V14	Valley	1	1	Job Reference (optional)

I45087430

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 01 13:02:13 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-P8KPCBTy5WfddWz6_S71NMBU3f828JBJzFzksYzd2CG



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-8 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=61(LC 9)
Max Uplift 1=-19(LC 12), 3=-34(LC 12)
Max Grav 1=147(LC 1), 3=147(LC 1)

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

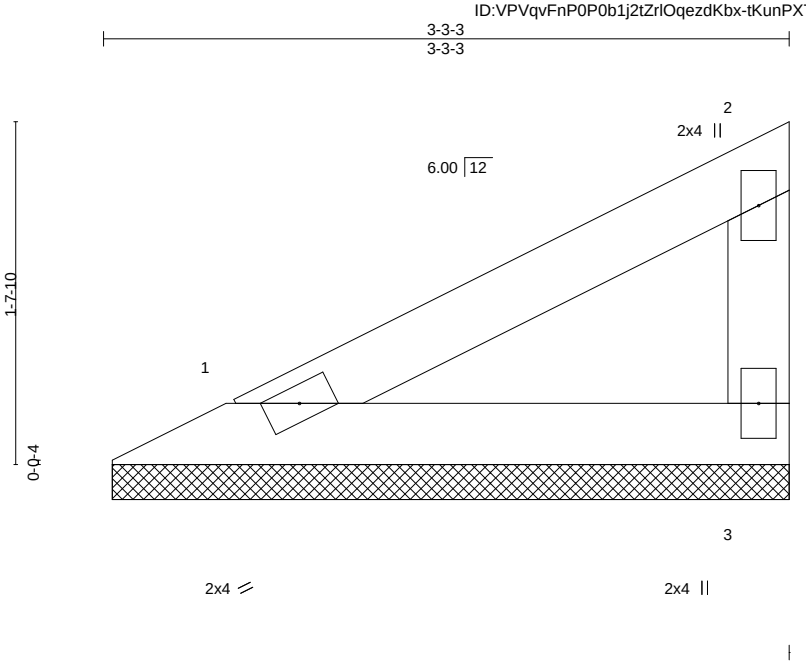
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions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

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V15	Valley	1	1	Job Reference (optional)

I45087431



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	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
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 1=3-2-11, 3=3-2-11
Max Horz 1=47(LC 9)
Max Uplift 1=-14(LC 12), 3=-26(LC 12)
Max Grav 1=112(LC 1), 3=112(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.

March 8,2021

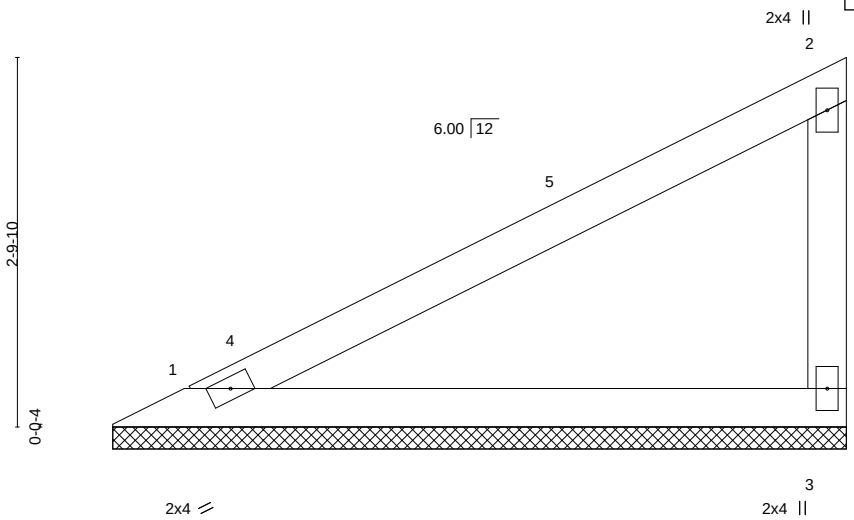
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V16	Valley	1	1	Job Reference (optional)

J45087432

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 01 14:03:51 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-tKunPXTasqnUEgYJY9fGwakcq3S7tmRTCvjIO_zd2CF

Scale = 1:17.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-6-11, 3=5-6-11
Max Horz 1=90(LC 11)
Max Uplift 1=-28(LC 12), 3=-51(LC 12)
Max Grav 1=217(LC 1), 3=217(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-5-7 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
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.

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

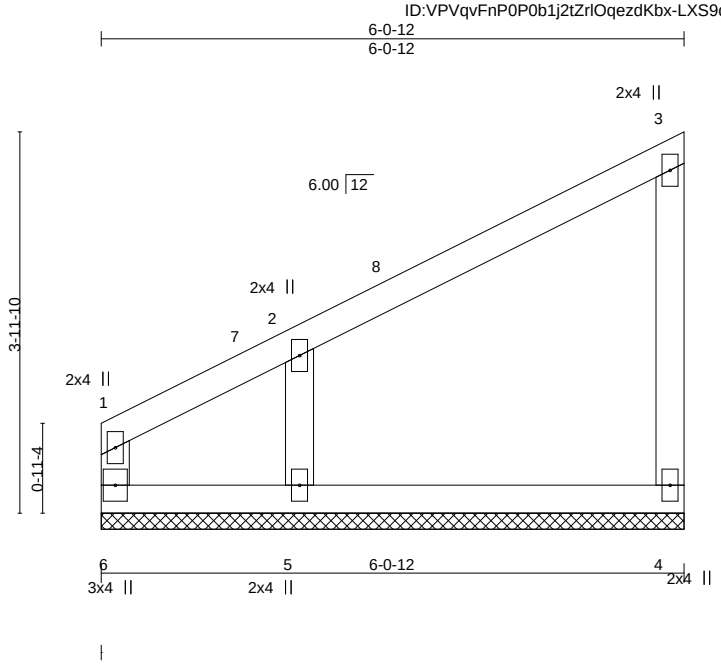
Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V17	Valley	1	1	J45087433

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:15 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-LXS9dtUCd8vLsq7V6sAVTnGr4TqYcDvcQZSrwRzd2CE

Scale: 1/2"=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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 21 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) 6=6-0-12, 4=6-0-12, 5=6-0-12
Max Horz 6=132(LC 11)
Max Uplift 6=-2(LC 8), 4=-25(LC 12), 5=-123(LC 12)
Max Grav 6=84(LC 11), 4=150(LC 1), 5=332(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-261/282

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 6, 4 except (jt=lb) 5=123.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 8,2021

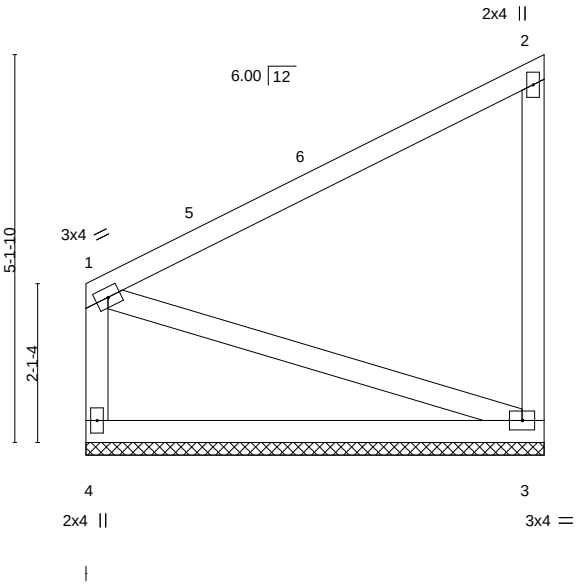
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V18	Valley	1	1	Job Reference (optional)

I45087434

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 3 14:01:15 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-LXS9dtUCd8vLsq7V6sAVTnGjFTmZcCzcQZSrwRzd2CE

Scale = 1:30.5



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	0.66	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 28 lb	FT = 20%

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

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

REACTIONS. (size) 4=6-0-12, 3=6-0-12
Max Horz 4=172(LC 11)
Max Uplift 4=-25(LC 12), 3=-78(LC 9)
Max Grav 4=260(LC 1), 3=260(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 3-4=-312/229
WEBS 1-3=-175/269

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

March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

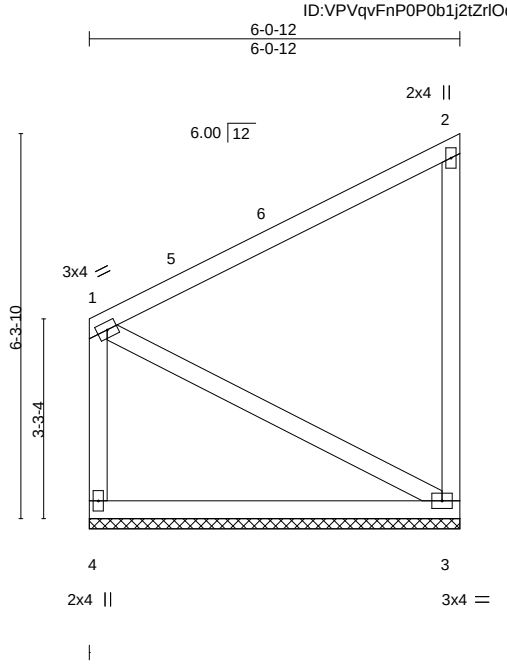
Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V19	Valley	1	1	Job Reference (optional)

I45087435

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:10 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-pj0YqDVqNR1CU_ihgahk??pu?t6oLg0mfDCOTtzd2CD

Scale = 1:37.7



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	0.66	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 31 lb	FT = 20%

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

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

REACTIONS. (size) 4=6-0-12, 3=6-0-12
Max Horz 4=106(LC 12)
Max Uplift 3=-129(LC 12)
Max Grav 4=260(LC 1), 3=260(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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-11-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) except (jt=lb) 3=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.

March 8,2021

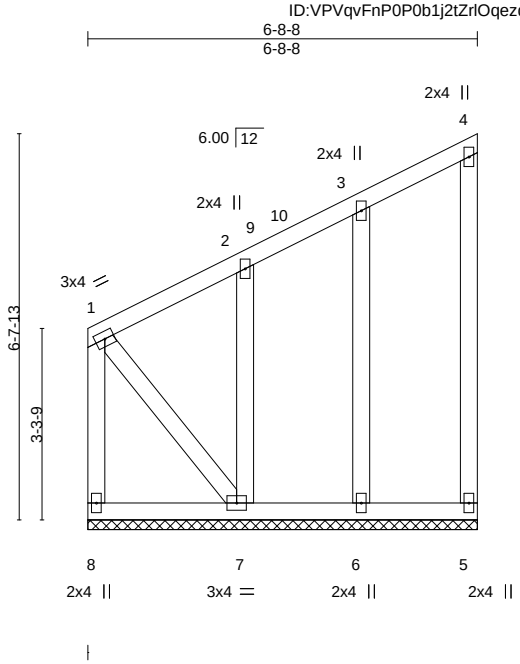
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/88 MANOR
2685114	V20	GABLE	1	1	J45087436

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 8 08:07:17 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Hvaw2ZWS8I9358HuDHCzYCM7OHVV46Vvutxy?Jzd2CC

Scale = 1:39.7



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	0.43	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 41 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 8-8-14 oc bracing.

REACTIONS. All bearings 6-8-8.
(lb) - Max Horz 8=225(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 8, 5, 6 except 7=-196(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 8, 5, 6 except 7=264(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-543/318, 1-2=-321/203
BOT CHORD 7-8=-462/341
WEBS 1-7=-365/607

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 6-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) 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 2-0-0 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) 8, 5, 6 except (jt=lb) 7=196.
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.

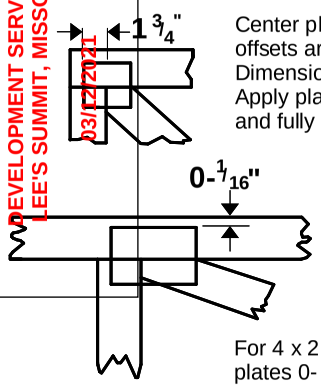
March 8,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/12/2021

Symbols

PLATE LOCATION AND ORIENTATION



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

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.

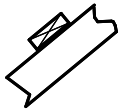
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

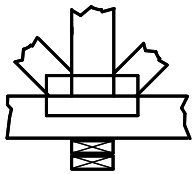
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

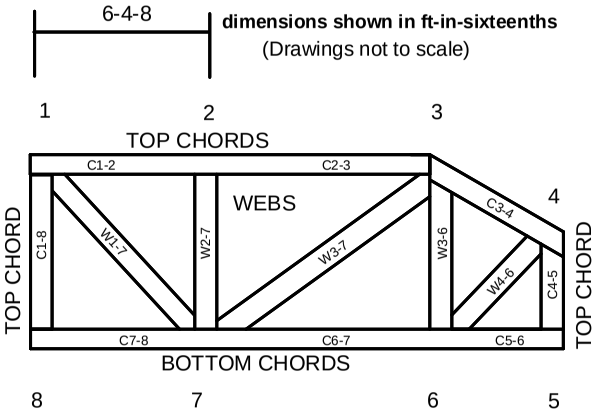


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.