



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

Re: 2794077 C&H/39 OSAGE

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: I46158042 thru I46158066

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

Missouri COA: Engineering 001193



May 18,2021

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.



Max Uplift All uplift 100 lb or less at joint(s) 2, 36, 38, 39, 40, 41, 42, 43, 44, 45, 34, 33, 24, 32, 31, 30, 29, 28, 27, 26

Max Grav All reactions 250 lb or less at joint(s) 2, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 34, 33, 24, 32, 31, 30, 29, 28, 27, 26

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

NOTES-

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 13-6-0, Corner(3R) 13-6-0 to 16-6-0, Exterior(2N) 16-6-0 to 27-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 36, 38, 39, 40, 41, 42, 43, 44, 45, 34, 33, 24, 32, 31, 30, 29, 28, 27, 26.

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.



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¹⁾ Unbalanced roof live loads have been considered for this design.





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L	7-11-15	13-6-0	15-9-0	20-2-12	24-8-8	27-0-0	
I	7-11-15	5-6-1	2-3-0	4-5-12	4-5-12	2-3-8	1
Plate Offsets (X,Y)	[2:0-2-1,Edge], [2:0-0-0,0-0-13], [6:0-2-1	12,Edge], [7:0-1-0,0-0-0],	[7:0-0-11,0-2-0], [8:0-	-2-12,0-2-11], [8:Edg	e,0-4-15], [12:0-	2-8,0-3-0]	
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.81 BC 0.80 WB 0.39 Matrix-AS	DEFL. Vert(LL) -C Vert(CT) -C Horz(CT) C	in (loc) l/defl 0.20 7-10 >999 0.37 7-10 >867 0.24 8 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 127 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SF 6-8: 2x BOT CHORD 2x4 SF 7-12: 2 WEBS 2x4 SF OTHERS 2x6 SF LBR SCAB 6-8 2x0 WEDGE Left: 2x4 SPF No.2 , R	PF No.2 *Except* 6 SPF 2100F 1.8E PF No.2 *Except* 2x4 SPF 1650F 1.5E PF No.2 PF 2100F 1.8E 6 SPF 2100F 1.8E one side ight: 2x4 SPF No.2		BRACING- TOP CHORD BOT CHORD WEBS	Structural wood Rigid ceiling dire 1 Row at midpt	sheathing direc ectly applied. 6-12	tly applied. 2	
REACTIONS. (siz Max H Max U Max G	e) 2=0-5-8, 8=0-3-8 lorz 2=120(LC 16) plift 2=-168(LC 12), 8=-146(LC 13) jrav 2=1271(LC 1), 8=1217(LC 1)						
FORCES. (lb) - Max. TOP CHORD 2-3=- BOT CHORD 2-15= WEBS 5-12=	Comp./Max. Ten All forces 250 (lb) or -2015/285, 3-5=-1617/275, 5-6=-1670/27 234/1710, 11-12=-225/2422, 10-11=-2 =-108/1004, 12-15=-200/1592, 3-12=-48	less except when shown 75, 6-7=-2725/369, 7-21= 67/2522, 7-10=-269/2510 7/188, 6-10=0/294, 6-12=	-578/98) -1218/282				
NOTES- 1) Attached 7-7-15 sca at 0-0-8 from end at 2) Unbalanced roof live 3) Wind: ASCE 7-16; W MWFRS (envelope) Interior(1) 16-6-0 to & MWFRS for reacti 4) This truss has been 5) Provide mechanical	ab 6 to 8, front face(s) 2x6 SPF 2100F 1. joint 6, nail 2 row(s) at 7" o.c. for 2-0-0; e loads have been considered for this de /ult=115mph (3-second gust) Vasd=91rr gable end zone and C-C Exterior(2E) -C 26-10-4 zone; cantilever left and right es ions shown; Lumber DOL=1.60 plate grij designed for a 10.0 psf bottom chord liv connection (by others) of trues to becin	8E with 2 row(s) of 10d (0 starting at 3-0-8 from end sign. ph; TCDL=6.0psf; BCDL= 1-10-8 to 2-1-8, Interior(1) yoosed ; end vertical left a DOL=1.60 e load nonconcurrent with o plate capable of wither	0.131"x3") nails space I at joint 6, nail 3 row(=4.2psf; h=15ft; Cat. I 2-1-8 to 13-6-0, Exte and right exposed;C-C h any other live loads	ed 9" o.c.except : star (s) at 2" o.c. for 4-2-6. (s) at 2" o.c. for 4-2-6. (s) at 2" o.c. for 4-2-6. (at 2) at 2-2. (at 2) at 2-2. (at 2) at 2-2. (at 2) at 2. (at 2) at 2. (ting -6-0, rces	STATE OF STATE SCOT	MISSOLA TT M. THER

- 5) Provide mechanical connection (by others) or truss to bearing plate capable or withstanding 100 ib upint at joint(s) except (j=ib 2=168, 8=146.
 6) This truss is designed in accordance with the 2018 International Residential Code sections P502 11 1 and P802 10 2 and
- 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.







May 18,2021





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 13-0-8, Corner(3R) 13-0-8 to 16-0-8, Exterior(2N) 16-0-8 to 27-5-0 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.

All plates are 2x4 MT20 unless otherwise indicated.

5) Gable requires continuous bottom chord bearing.

6) Gable studs spaced at 1-4-0 oc.

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 44, 34, 36, 37, 38, 39, 40, 41, 42, 32, 31, 22, 30, 29, 28, 27, 26, 25, 24 except (jt=lb) 43=109.

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.



NITEK* 16023 Swingley Ridge Rd Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	C&H/39 OSAGE				
					146158050				
2794077	B1	ROOF SPECIAL GIRDER	1	2					
				J	Job Reference (optional)				
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 17 14:12:52 2021 Page 2									
			ID:xKFGJ7evN2	7xhJE66Fl	FHnCzvA57-YthMNI2aUqr2IAy20HNcLCwarRGfANcUisChgczFZz9				
NOTES-									
10) This truss is des	igned in accordance with	the 2018 International Residential Code sections	R502.11.1 and F	R802.10.2	and referenced standard ANSI/TPI 1.				
11) Load case(s) 1,	2, 3, 4, 5, 6, 7, 8, 9, 10, 1	1, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 2	4, 25, 26, 27, 28,	29, 30, 31	I, 32, 33, 34, 35, 36, 37, 38, 39, 40 has/have been				
modified. Buildir	ng designer must review lo	bads to verify that they are correct for the intende	d use of this truss	S.					
12) Use Simpson St	trong-Tie HUS26 (14-10d	Girder, 4-10d Truss) or equivalent spaced at 2-0-	0 oc max. startin	g at 0-8-4 f	from the left end to 8-8-4 to connect truss(es) to				
front face of bott	tom chord.			-					

13) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 14-8-4 from the left end to 16-8-4 to connect truss(es) to front face of bottom chord.

14) Fill all nail holes where hanger is in contact with lumber.

15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1167 lb down and 170 lb up at 12-8-4, and 1167 lb down and 170 lb up at 18-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard 1) Dead + Roof Live (balanced): Lumber Increase=1.15. Plate Increase=1.15 Uniform Loads (plf) Vert: 1-4=-70, 4-8=-70, 11-16=-20, 10-11=-20, 9-10=-20, 9-19=-20 Concentrated Loads (lb) Vert: 12=-1200(F) 14=-1167(F) 25=-1176(F) 26=-1173(F) 27=-1167(F) 28=-1167(F) 29=-1167(F) 31=-1167(F) 32=-1167(F) 33=-1167(F) 2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf) Vert: 1-4=-58, 4-8=-58, 11-16=-20, 10-11=-20, 9-10=-20, 9-19=-20 Concentrated Loads (lb) Vert: 12=-1200(F) 14=-1002(F) 25=-1011(F) 26=-1008(F) 27=-1002(F) 28=-1002(F) 29=-1002(F) 31=-1002(F) 32=-1002(F) 33=-1002(F) 32=-1002(F) 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25 Uniform Loads (plf) Vert: 1-4=-20, 4-8=-20, 11-16=-40, 10-11=-40, 9-10=-40, 9-19=-40 Concentrated Loads (lb) Vert: 12=-1200(F) 14=-752(F) 25=-762(F) 26=-756(F) 27=-752(F) 28=-752(F) 29=-752(F) 31=-752(F) 32=-752(F) 33=-752(F) 33=-4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf) Vert: 1-4=-15, 4-8=9, 11-16=-8, 10-11=-8, 9-10=-8, 9-19=-8 Horz: 1-4=3, 4-8=21 Concentrated Loads (lb) Vert: 12=-1200(F) 14=154(F) 25=154(F) 26=155(F) 27=154(F) 28=154(F) 29=158(F) 31=158(F) 32=158(F) 33=158(F) 33=158(F 5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf) Vert: 1-4=9, 4-8=-15, 11-16=-8, 10-11=-8, 9-10=-8, 9-19=-8 Horz: 1-4=-21 4-8=-3 Concentrated Loads (lb) Vert: 12=-1200(F) 14=154(F) 25=154(F) 26=155(F) 27=154(F) 28=154(F) 29=158(F) 31=158(F) 32=158(F) 33=158(F) 33=158(F 6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf) Vert: 1-4=-33, 4-8=-10, 11-16=-20, 10-11=-20, 9-10=-20, 9-19=-20 Horz: 1-4=13, 4-8=10 Concentrated Loads (lb) Vert: 12=-1200(F) 14=165(F) 25=164(F) 26=167(F) 27=165(F) 28=165(F) 29=170(F) 31=170(F) 32=170(F) 33=170(F) 7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf) Vert: 1-4=-10, 4-8=-33, 11-16=-20, 10-11=-20, 9-10=-20, 9-19=-20 Horz: 1-4=-10, 4-8=-13 Concentrated Loads (lb) Vert: 12=-1200(F) 14=165(F) 25=164(F) 26=167(F) 27=165(F) 28=165(F) 29=170(F) 31=170(F) 32=170(F) 33=170(F) 8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf) Vert: 1-4=25, 4-8=9, 11-16=-8, 10-11=-8, 9-10=-8, 9-19=-8 Horz: 1-4=-37, 4-8=21 Concentrated Loads (lb) Vert: 12=-1200(F) 14=154(F) 25=154(F) 26=155(F) 27=154(F) 28=154(F) 29=158(F) 31=158(F) 32=158(F) 33=158(F) 9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf) Vert: 1-4=9, 4-8=25, 11-16=-8, 10-11=-8, 9-10=-8, 9-19=-8 Horz: 1-4=-21, 4-8=37 Concentrated Loads (lb) Vert: 12=-1200(F) 14=154(F) 25=154(F) 26=155(F) 27=154(F) 28=154(F) 29=158(F) 31=158(F) 32=158(F) 33=158(F) 32=158(F) 32=158(F 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf) Vert: 1-4=14, 4-8=4, 11-16=-8, 10-11=-8, 9-10=-8, 9-19=-8 Horz: 1-4=-26, 4-8=16 Concentrated Loads (lb) Vert: 12=-1200(F) 14=154(F) 25=154(F) 26=155(F) 27=154(F) 28=154(F) 29=158(F) 31=158(F) 32=158(F) 33=158(F) 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf) Vert: 1-4=4, 4-8=14, 11-16=-8, 10-11=-8, 9-10=-8, 9-19=-8 Horz: 1-4=-16, 4-8=26 Concentrated Loads (lb) Vert: 12=-1200(F) 14=154(F) 25=154(F) 26=155(F) 27=154(F) 28=154(F) 29=158(F) 31=158(F) 32=158(F) 33=158(F) 12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

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1-b	T	T	0.	Dby	0811/00 00405
JOD	Truss	Truss Type	Qty	гу	I46158050
2794077	B1	ROOF SPECIAL GIRDER	1	3	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.4	430 s Apr 2	20 2021 MiTek Industries, Inc. Mon May 17 14:12:52 2021 Page 3
		ID:xKF	GJ7evN?7	7xhJE66FF	HnCzvA57-YthMNl2aUqr2lAy20HNcLCwarRGfANcUisChgczFZz9
LOAD CASE(S) Standard Uniform Loads (plf) Vert: 1-4=6, 4 Horz: 1-4=-26 Concentrated Loads (II Vert: 12=-120	I -8=-10, 11-16=-20, 10-11=-20 , 4-8=10 o) 0(F) 14=165(F) 25=164(F) 26), 9-10=-20, 9-19=-20 =167(F) 27=165(F) 28=165(F) 29=170(F) 31=1	70(F) 32=	-170(F) 33	3=170(F)
13) Dead + 0.6 MWFRS W Uniform Loads (plf) Vert: 1-4=-10, Horz: 1-4=-10 Concentrated Loads (II	/ind (Neg. Internal) 2nd Parall 4-8=6, 11-16=-20, 10-11=-20 , 4-8=26 b)	el: Lumber Increase=1.60, Plate Increase=1.60), 9-10=-20, 9-19=-20			
Vert: 12=-120 14) Dead: Lumber Increas: Uniform Loads (plf) Vert: 1-4=-20, Concentrated Loads (II	0(F) 14=165(F) 25=164(F) 26 e=0.90, Plate Increase=0.90 l 4-8=-20, 11-16=-20, 10-11=- o)	=167(F) 27=165(F) 28=165(F) 29=170(F) 31=1 Plt. metal=0.90 20, 9-10=-20, 9-19=-20	70(F) 32=	=170(F) 33	3=170(F)
Vert: 12=-120 15) Dead + 0.75 Roof Live Uniform Loads (plf) Vert: 1-4=-67,	0(F) 14=-508(F) 25=-514(F) 2 (bal.) + 0.75(0.6 MWFRS Wi 4-8=-50, 11-16=-20, 10-11=-	:6=-511(F) 27=-508(F) 28=-508(F) 29=-508(F) nd (Neg. Int) Left): Lumber Increase=1.60, Plate 20, 9-10=-20, 9-19=-20	31=-508(F e Increase	⁵) 32=-508 ≥=1.60	3(F) 33=-508(F)
Horz: 1-4=10, Concentrated Loads (II Vert: 12=-120) 16) Dead + 0.75 Roof Live Uniform Loads (plf) Vert: 1-4=-50, Horz: 1-4=-8	4-8=8 b) D(F) 14=62(F) 25=59(F) 26=6 (bal.) + 0.75(0.6 MWFRS Wi 4-8=-67, 11-16=-20, 10-11=- 4-8=-10	3(F) 27=62(F) 28=62(F) 29=65(F) 31=65(F) 32 nd (Neg. Int) Right): Lumber Increase=1.60, Pla 20, 9-10=-20, 9-19=-20	=65(F) 33 ite Increas	=65(F) se=1.60	
 174=6, Concentrated Loads (II Vert: 12=-120 17) Dead + 0.75 Roof Live Uniform Loads (plf) Vert: 1-4=-38, Horz: 1-4=-20 	4-8=-10 D(F) 14=62(F) 25=59(F) 26=6 (bal.) + 0.75(0.6 MWFRS Wi 4-8=-50, 11-16=-20, 10-11=- , 4-8=8	3(F) 27=62(F) 28=62(F) 29=65(F) 31=65(F) 32 nd (Neg. Int) 1st Parallel): Lumber Increase=1.6 20, 9-10=-20, 9-19=-20	=65(F) 33 60, Plate I	=65(F) ncrease=	1.60
Concentrated Loads (II Vert: 12=-120 18) Dead + 0.75 Roof Live Uniform Loads (plf) Vert: 1-4=-50,	b) 0(F) 14=62(F) 25=59(F) 26=6 (bal.) + 0.75(0.6 MWFRS Wi 4-8=-38, 11-16=-20, 10-11=-	3(F) 27=62(F) 28=62(F) 29=65(F) 31=65(F) 32 nd (Neg. Int) 2nd Parallel): Lumber Increase=1. 20, 9-10=-20, 9-19=-20	=65(F) 33 60, Plate	=65(F) Increase=	-1.60
H0/2. 1-4=-5, Concentrated Loads (II Vert: 12=-120 19) Dead + 0.6 MWFRS W Uniform Loads (plf) Vert: 1-4=-17, Horz: 1-4=5	4-8=20 b) O(F) 14=62(F) 25=59(F) 26=6 Vind Min. Left: Lumber Increas 4-8=-12, 11-16=-8, 10-11=-8	3(F) 27=62(F) 28=62(F) 29=65(F) 31=65(F) 32 se=1.60, Plate Increase=1.60 , 9-10=-8, 9-19=-8	=65(F) 33	=65(F)	
Concentrated Loads (II Vert: 12=-120 20) Dead + 0.6 MWFRS W Uniform Loads (plf) Vert: 1-4=-12, Hor:: 4 2= 5	b) 0(F) 14=84(F) 25=84(F) 26=8 /ind Min. Right: Lumber Increa 4-8=-17, 11-16=-8, 10-11=-8	5(F) 27=84(F) 28=84(F) 29=88(F) 31=88(F) 32 ase=1.60, Plate Increase=1.60 , 9-10=-8, 9-19=-8	=88(F) 33	=88(F)	
21) 1st Dead + Roof Live (Uniform Loads (II Uniform Loads (plf) Vert: 1-4=-70, Concentrated Loads (II	o) 0(F) 14=84(F) 25=84(F) 26=8 unbalanced): Lumber Increas 4-8=-20, 11-16=-20, 10-11=- o)	5(F) 27=84(F) 28=84(F) 29=88(F) 31=88(F) 32 e=1.15, Plate Increase=1.15 20, 9-10=-20, 9-19=-20	=88(F) 33	=88(F)	
Vert: 12=-120 33=-1167(F) 22) 2nd Dead + Roof Live Uniform Loads (plf) Vert: 1-4=-20,	Ú(F) 14=-1167(F) 25=-1176(F (unbalanced): Lumber Increa: 4-8=-70, 11-16=-20, 10-11=-) 26=-1173(F) 27=-1167(F) 28=-1167(F) 29=-1 se=1.15, Plate Increase=1.15 20, 9-10=-20, 9-19=-20	167(F) 31	=-1167(F)) 32=-1167(F)
Concentrated Loads (II Vert: 12=-120 33=-1167(F) 23) 3rd Dead + 0.75 Roof Uniform Loads (plf)	b) 0(F) 14=-1167(F) 25=-1176(F Live (unbalanced): Lumber In) 26=-1173(F) 27=-1167(F) 28=-1167(F) 29=-1 crease=1.15, Plate Increase=1.15	167(F) 31	=-1167(F)) 32=-1167(F)
Vert: 1-4=-58, Concentrated Loads (II Vert: 12=-120 33=-1002(F) 24) 4th Dead + 0.75 Roof I	4-8=-20, 11-16=-20, 10-11=- b) 0(F) 14=-1002(F) 25=-1011(F _ive (unbalanced): Lumber In-	20, 9-10=-20, 9-19=-20) 26=-1008(F) 27=-1002(F) 28=-1002(F) 29=-1 crease=1.15, Plate Increase=1.15	002(F) 31	=-1002(F) 32=-1002(F)
Uniform Loads (plf) Vert: 1-4=-20,	4-8=-58, 11-16=-20, 10-11=-	20, 9-10=-20, 9-19=-20			

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Job	Truss	Truss Type	Qty	Ply	C&H/39 OSAGE						
2794077	B1	ROOF SPECIAL GIRDER	1	2	14615805						
Builders FirstSource (Valle	v Center). Vallev Center, k			3.430 s Apr	Job Reference (optional) 20 2021 MiTek Industries, Inc. Mon May 17 14:12:52 2021 Page 4						
		ID:xk	(FGJ7evN	?7xhJE66F	FHnCzvA57-YthMNI2aUqr2IAy20HNcLCwarRGfANcUisChgczFZz9						
LOAD CASE(S) Standar Concentrated Loads Vert: 12=-12	rd (lb) 00(F) 14=-1002(F) 25=-1011(l	F) 26=-1008(F) 27=-1002(F) 28=-1002(F) 29=-	1002(F) 3	1=-1002(F	F) 32=-1002(F) 33=-1002(F)						
25) Reversal: Dead + 0.6 Uniform Loads (plf) Vert: 1-4=-15	MWFRS Wind (Pos. Internal)	Left: Lumber Increase=1.60, Plate Increase=1	.60								
Horz: 1-4=3, Concentrated Loads	4-8=21 (lb)			(=) 00 45							
26) Reversal: Dead + 0.6 Uniform Loads (plf)	MWFRS Wind (Pos. Internal)	26=-499(F) 27=-496(F) 28=-496(F) 29=-458(F) Right: Lumber Increase=1.60, Plate Increase=	-1.60	(F) 32=-45	88(F) <i>33</i> =-498(F)						
Vert: 1-4=9, Horz: 1-4=-2 Concentrated Loads	4-8=-15, 11-16=-8, 10-11=-8, 1, 4-8=-3 (lb)	9-10=-8, 9-19=-8									
Vert: 12=-12 27) Reversal: Dead + 0.6 Uniform Loads (plf)	Vert: 12=-1200(F) 14=-496(F) 25=-500(F) 26=-499(F) 27=-496(F) 28=-496(F) 29=-458(F) 31=-458(F) 32=-458(F) 33=-458(F) 27) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)										
Vert: 1-4=-33 Horz: 1-4=13 Concentrated Loads	3, 4-8=-10, 11-16=-20, 10-11= 3, 4-8=10 (lb)	-20, 9-10=-20, 9-19=-20									
Vert: 12=-12 28) Reversal: Dead + 0.6	00(F) 14=-484(F) 25=-491(F) MWFRS Wind (Neg. Internal)	26=-487(F) 27=-484(F) 28=-484(F) 29=-447(F)) Right: Lumber Increase=1.60, Plate Increase=	31=-447) =1.60	(F) 32=-44	47(F) 33=-447(F)						
Vert: 1-4=-10 Horz: 1-4=-1), 4-8=-33, 11-16=-20, 10-11= 0, 4-8=-13	-20, 9-10=-20, 9-19=-20									
Vert: 12=-12 29) Reversal: Dead + 0.6	00(F) 14=-484(F) 25=-491(F) MWFRS Wind (Pos. Internal)	26=-487(F) 27=-484(F) 28=-484(F) 29=-447(F) 1st Parallel: Lumber Increase=1.60, Plate Incr	31=-447 ease=1.6	(F) 32=-44 0	47(F) 33=-447(F)						
Uniform Loads (plf) Vert: 1-4=25 Horz: 1-4=-3	, 4-8=9, 11-16=-8, 10-11=-8, 9 7, 4-8=21	9-10=-8, 9-19=-8									
Concentrated Loads Vert: 12=-12 30) Reversal: Dead + 0.6	(lb) 00(F) 14=-496(F) 25=-500(F) MWFRS Wind (Pos. Internal)	26=-499(F) 27=-496(F) 28=-496(F) 29=-458(F)	31=-458	(F) 32=-45	58(F) 33=-458(F)						
Uniform Loads (plf) Vert: 1-4=9,	4-8=25, 11-16=-8, 10-11=-8, 9	9-10=-8, 9-19=-8									
Concentrated Loads Vert: 12=-12	(lb) 00(F) 14=-496(F) 25=-500(F)	26=-499(F) 27=-496(F) 28=-496(F) 29=-458(F)	31=-458	(F) 32=-45	58(F) 33=-458(F)						
31) Reversal: Dead + 0.6 Uniform Loads (plf) Vert: 1-4=14	MWFRS Wind (Pos. Internal) , 4-8=4, 11-16=-8, 10-11=-8, 9) 3rd Parallel: Lumber Increase=1.60, Plate Inc 9-10=-8, 9-19=-8	rease=1.6	0							
Horz: 1-4=-2 Concentrated Loads Vert: 12=-12	6, 4-8=16 (lb) 00(F) 14=-496(F) 25=-500(F)	26=-499(F) 27=-496(F) 28=-496(F) 29=-458(F)	31=-458	(F) 32=-45	58(F) 33=-458(F)						
32) Reversal: Dead + 0.6 Uniform Loads (plf)	MWFRS Wind (Pos. Internal)	4th Parallel: Lumber Increase=1.60, Plate Incr	ease=1.6	0							
Horz: 1-4=-1 Concentrated Loads	(lb) (lb)			(=) 0.0 45							
Vert: 12=-12 33=-458(F) 33) Reversal: Dead + 0.6	MWFRS Wind (Neg. Internal)	26=-499(F) 27=-496(F) 28=-496(F) 29=-458(F)) 1st Parallel: Lumber Increase=1.60, Plate Inc	rease=1.6	(F) 32=-45 0	88(F)						
Uniform Loads (plf) Vert: 1-4=6, Horz: 1-4=-2	4-8=-10, 11-16=-20, 10-11=-2 6, 4-8=10	0, 9-10=-20, 9-19=-20									
Concentrated Loads Vert: 12=-12 33=-447(F)	(lb) 00(F) 14=-484(F) 25=-491(F)	26=-487(F) 27=-484(F) 28=-484(F) 29=-447(F)	31=-447	(F) 32=-44	47(F)						
34) Reversal: Dead + 0.6 Uniform Loads (plf)	MWFRS Wind (Neg. Internal)) 2nd Parallel: Lumber Increase=1.60, Plate Inc	crease=1.0	60							
Horz: 1-4=-1 Concentrated Loads	(lb) 0. 4-8=26 (lb)	00, 407/E) 07, 404/E) 00, 404/E) 00, 447/E	04 447	(5) 00 44	47(5)						
vert: 12=-12 33=-447(F) 35) Reversal: Dead + 0.7	5 Roof Live (bal.) + 0.75(0.6 N	20=-467(F) 27=-484(F) 28=-484(F) 29=-447(F) //WFRS Wind (Neg. Int) Left): Lumber Increase	: 31=-447(⊨1.60, Pla	(r) 32=-44 ate Increas	+/(۲) se=1.60						
Uniform Loads (plf) Vert: 1-4=-67 Horz: 1-4=10	7, 4-8=-50, 11-16=-20, 10-11=). 4-8=8	-20, 9-10=-20, 9-19=-20									
Concentrated Loads Vert: 12=-12	(lb) 00(F) 14=-861(F) 25=-869(F)	26=-866(F) 27=-861(F) 28=-861(F) 29=-833(F)	31=-833	(F) 32=-83	33(F)						
36) Reversal: Dead + 0.7	5 Roof Live (bal.) + 0.75(0.6 N	MWFRS Wind (Neg. Int) Right): Lumber Increas	se=1.60, F	Plate Increa	ease=1.60						

Continued on page 5



Job	Truss	Truss Type	Qty	Ply	C&H/39 OSAGE	
2794077	B1	ROOF SPECIAL GIRDER	1	2		146158050
				3	Job Reference (optional)	
Duilden EinstOsunss (Vallau	Orantea) Mallau Orantea M	0 074 47	0	100 - 1	00.0004 MiTals la duatria a la a Mars Mars 47.4440-50.0004	Dana

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

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 17 14:12:52 2021 Page 5 ID:xKFGJ7evN?7xhJE66FFHnCzvA57-YthMNl2aUgr2IAy20HNcLCwarRGfANcUisChgczFZ29

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-4=-50, 4-8=-67, 11-16=-20, 10-11=-20, 9-10=-20, 9-19=-20

Horz: 1-4=-8, 4-8=-10

Concentrated Loads (lb)

Vert: 12=-1200(F) 14=-861(F) 25=-869(F) 26=-866(F) 27=-861(F) 28=-861(F) 29=-833(F) 31=-833(F) 32=-833(F) 33=-833(F) 33=-833(F) 33=-833(F) 32=-833(F) 32=-83(F) 32=-83(F) 32=-

Vert: 1-4=-38, 4-8=-50, 11-16=-20, 10-11=-20, 9-10=-20, 9-19=-20

Horz: 1-4=-20, 4-8=8

Concentrated Loads (lb)

Vert: 12=-1200(F) 14=-861(F) 25=-869(F) 26=-866(F) 27=-861(F) 28=-861(F) 29=-833(F) 31=-833(F) 32=-833(F) 33=-833(F) 33=-

Vert: 1-4=-50, 4-8=-38, 11-16=-20, 10-11=-20, 9-10=-20, 9-19=-20

Horz: 1-4=-8, 4-8=20

Concentrated Loads (lb)

Vert: 12=-1200(F) 14=-861(F) 25=-869(F) 26=-866(F) 27=-861(F) 28=-861(F) 29=-833(F) 31=-833(F) 32=-833(F) 33=-833(F) 39) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-4=-17, 4-8=-12, 11-16=-8, 10-11=-8, 9-10=-8, 9-19=-8

Horz: 1-4=5

Concentrated Loads (lb)

Vert: 12=-1200(F) 14=-426(F) 25=-430(F) 26=-429(F) 27=-426(F) 28=-426(F) 29=-389(F) 31=-389(F) 32=-389(F) 33=-389(F) 40) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-4=-12, 4-8=-17, 11-16=-8, 10-11=-8, 9-10=-8, 9-19=-8

Horz: 4-8=-5 Concentrated Loads (lb)

Vert: 12=-1200(F) 14=-426(F) 25=-430(F) 26=-429(F) 27=-426(F) 28=-426(F) 29=-389(F) 31=-389(F) 32=-389(F) 33=-389(F)





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) 2=113, 8=113.

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.



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Max Horz 20=-142(LC 10) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13

Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-3-6, Corner(3R) 5-3-6 to 8-3-6, Exterior(2N) 8-3-6 to 11-5-4 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) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 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, 12, 17, 18, 19, 15, 14, 13.

10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 18,2021





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

BRACING-TOP CHORD

Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals.

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

REACTIONS. All bearings 5-11-8. (lb) -

Max Horz 2=83(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8

Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7 except 8=289(LC 1)

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

WEBS 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) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-9-5 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.

4) Gable studs spaced at 1-4-0 oc.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2, 7, 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.

3-8=-220/281







				5-11-8				1	
				5-11-8				1	
Plate Offsets (X,Y)	[2:0-1-13,Edge]								
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI. TC 0.44 BC 0.35 WB 0.00	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.06 4-7 -0.12 4-7 0.00 2	l/defl >999 >569 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 197/144
BCDL 10.0	Code IRC2018/1	PI2014	Matrix-AS					Weight: 17 lb	FT = 20%
LUMBER-	1		1	BRACING-				-1	

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8

Max Horz 2=84(LC 11) Max Uplift 4=-52(LC 12), 2=-76(LC 8) Max Grav 4=257(LC 1), 2=327(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-9-12 zone; cantilever left and right
- exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 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.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.





Plate Offsets (X,Y)	[2:0-0-5,Edge]				
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.17 BC 0.15 WB 0.00	DEFL. in (I Vert(LL) -0.01 Vert(CT) -0.02 Horz(CT) 0.00	loc) l/defl L/d 4-7 >999 240 4-7 >999 180 2 n/a n/a	PLATES GRIP MT20 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP			Weight: 11 lb FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF	2F No.2 2F No.2	1	BRACING- TOP CHORD St ex	tructural wood sheathing dire	ectly applied or 3-11-8 oc purlins,

WEBS 2x4 SPF No.2 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8 Max Horz 2=57(LC 11)

Max Uplift 4=-33(LC 12), 2=-63(LC 8) Max Grav 4=165(LC 1), 2=240(LC 1)

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

NOTES-

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

MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) Refer to girder(s) for truss to truss connections.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.

5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and

referenced standard ANSI/TPI 1.







LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.23 BC 0.15 WB 0.00 Matrix-P	DEFL. in Vert(LL) -0.00 Vert(CT) 0.00 Horz(CT) 0.00	n (loc) 1 1 4	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 11 lb	GRIP 197/144 FT = 20%
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LUMBER-

TOP CHORD2x4 SPF No.2BOT CHORD2x4 SPF No.2WEBS2x4 SPF No.2

BRACING-TOP CHORD

 TOP CHORD
 Structural wood sheathing directly applied or 3-11-8 oc purlins, except end verticals.

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

REACTIONS. (size) 4=3-11-8, 2=3-11-8 Max Horz 2=57(LC 9) Max Uplift 4=-33(LC 12), 2=-64(LC 8) Max Grav 4=162(LC 1), 2=240(LC 1)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 3-9-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult gualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 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.



NiTek* 16023 Swingley Ridge Rd Chesterfield, MO 63017



	4-10-6											
LOADIN TCLL TCDL BCLL	G (psf) 25.0 10.0 0.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI. TC BC WB	0.28 0.23 0.00	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.03 -0.05 0.00	(loc) 4-7 4-7 2	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 197/144
BCDL	10.0	Code IRC2018/TF	PI2014	Matrix	k-AS						Weight: 14 lb	FT = 20%

BRACING-TOP CHORD

BOT CHORD

4-10-6

LUMBER-

TOP CHORD 2x4 SPF No 2 BOT CHORD

2x4 SPF No.2 WEBS 2x4 SPF No.2

REACTIONS. 4=Mechanical, 2=0-3-8 (size) Max Horz 2=69(LC 11) Max Uplift 4=-42(LC 12), 2=-69(LC 8) Max Grav 4=207(LC 1), 2=279(LC 1)

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

NOTES-

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



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.





NOTES-

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-8-10 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

2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

3) Gable requires continuous bottom chord bearing.

4) Gable studs spaced at 1-4-0 oc.

5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.

7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.







REACTIONS. (size) 1=3-9-6, 3=3-9-6, 4=3-9-6 Max Horz 1=-84(LC 8) Max Uplift 1=-38(LC 13), 3=-34(LC 12) Max Grav 1=114(LC 20), 3=109(LC 19), 4=97(LC 3)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) 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(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.

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.







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- FORCES. (Ib) Max. Comp./Max. Ten. All forces 250 (Ib) or less except when shown.
- WEBS 2-8=-327/218, 4-6=-336/225

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) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 8-1-11, Exterior(2R) 8-1-11 to 11-1-11, Interior(1) 11-1-11 to 15-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) 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=189, 6=196.
- 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.









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



16023 Swingley Ridge Rd Chesterfield, MO 63017









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 2-0-0 oc purlins (6-0-0 max.): 2-3.

BOT CHORD

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

REACTIONS. All bearings 9-0-5.

(lb) -Max Horz 1=-65(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 4, 5, 6 Max Grav All reactions 250 lb or less at joint(s) 1, 4, 5, 6

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) 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) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 3-9-5, Exterior(2E) 3-9-5 to 8-8-1 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) Gable requires continuous bottom chord bearing.

5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5, 6.

7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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







ŀ	<u>1-4-8</u> 1-4-8			<u>5-3-10</u> 3-11-2					<u>6-8-2</u> 1-4-8	———————————————————————————————————————
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/T	2-0-0 1.15 1.15 YES PI2014	CSI. TC 0.30 BC 0.09 WB 0.02 Matrix-P	DEFL. Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 16 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4	BRACING- TOP CHOR	RD	Structu	ral wood	sheathing	directly applied or 6-0-0) oc purlins, except			

BOT CHORD2x4 SFF No.2BOT CHORD2x4 SPF No.2WEBS2x4 SPF No.2

BRACING-TOP CHORD BOT CHORD

2-0-0 oc purlins (6-0-0 max.): 2-3. Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 6-8-2. (lb) - Max Horz 1=18(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 1, 4, 6, 5

Max Grav All reactions 250 lb or less at joint(s) 1, 4 except 6=257(LC 25), 5=257(LC 26)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) 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) Provide adequate drainage to prevent water ponding.

4) Gable requires continuous bottom chord bearing.

5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 6, 5.

7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and

referenced standard ANSI/TPI 1.

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

16023 Swingley Ridge Rd Chesterfield, MO 63017

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