



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

# Re: 2683768 SUMMIT/WOODSIDE RIDGE #38/MO

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

Pages or sheets covered by this seal: I44927287 thru I44927335

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

Missouri COA: Engineering 001193



Sevier, Scott

February 24,2021

**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.

,Engineer

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #38/MO	144927287
2683768	A1	ROOF SPECIAL GIRDER	1	1	lab Deference (aptional)	
Builders FirstSource (Valley	/ Center), Valley Center, K	I S - 67147,	8.	430 s Feb	12 2021 MiTek Industries, Inc. Tue Feb 23 12:24:07 2021	Page 1
-0-10-8 4-0-	0 7-1-12 9-0-0	13-7-12 14-0-0 19-0-0 20	ID:ggMHuYjvKTSN 0-1-12 24-0-0	ISqRK_pc	YByzXhjuH54ysG3l3kQKd?3uA1FMD9uqcypQ8?mbYn41 30-0-0 34-0-0 36-10-4 40-0-0 40	nziFqs 10-8
0-10-8 4-0-	0 3-1-12 1-10-4	4-7-12 0-4-4 5-0-0 1	-1-12 3-10-4	2-0-0	4-0-0 4-0-0 2-10-4 3-1-12 0-	10-8
					S	cale = 1:72.4
5 00 12	NAILED	NAILED NAILED	NAILED	6x6 =		
5.00   12	6x6 = 3x4 = N/2	AILED NAILED 2x4    NAILED 3x6 =	$4x8 = \frac{5x8}{NAILE}$		NAILED $11 - 41 - 12 + 42 - 3x4 > 3$	
] 3x4 ≠	4 5 35	36 37 638 39 7 ⊠ ⊠ ⊠ ⊠ ⊠	8 🛛	9		I
21-1-12 2-6-6 3			9			15 9
	26 25	24	22	20	19 18 17	6
4: ave 11 1 1 1	$3 \xrightarrow{2} 44 45$ $24 \xrightarrow{2} 44 = N$	46 47 - 48 23 49	$4x8 = {}^{50}$	21 -~ 4x4	51   52   53   54 = 5x8 = 3x4 = 2x4   5x8 = 5x8 = 3x4 = 2x4   5x8 = 5x8 = 5x8 = 5x8 = 5x8   5x8   5x8 = 5x8   5x	п
340 11 203	NAILED LUS24 NAILED		LUS24 <sup>47</sup> LU	IS24 NAIL	ED NAILED NAILED NAILED LUS24 LUS24	
4-0-	0 7-1-12 11-5-	12 13-7-12 15-9-12 20-1-12	24-0-0	26-0-0	30-0-0 , 34-0-0 , 36-10-4 , 40-0-0 ,	
A-0-		0 2-2-0 2-2-0 4-4-0	3-10-4	2-0-0	4-0-0 4-0-0 2-10-4 3-1-12	
	0-3-8,0-2-0J, [9.0-4-0,0-2-2J, [/	22.0-3-8,0-2-0]				
LOADING (psf)	SPACING- 2-0-0 Plate Grip DOI 1 15	CSI.	DEFL. in Vert(LL) -0.10	(loc) 18-19	I/defl         L/d         PLATES         GRIP           >999         240         MT20         197/144	
TCDL 20.0	Lumber DOL 1.15	BC 0.77	Vert(CT) -0.23	18-19	>999 180	
BCLL 0.0 BCDL 10.0	Rep Stress Incr NC Code IRC2018/TPI2014	WB 0.61 Matrix-MS	Horz(CT) 0.03	15	n/a n/a Weight: 161 lb FT = 20 <sup>6</sup>	6
			BRACING			
TOP CHORD 2x4 SPF N	No.2 *Except*		TOP CHORD	Structur	al wood sheathing directly applied or 2-11-12 oc purlins.	
7-9: 2x4 S	PF 1650F 1.5E			except	purling (2.10.14 may ); 4.0.10.12	
21-23: 2x4	4 SP 2400F 2.0E		BOT CHORD	Rigid ce	iling directly applied or 4-11-2 oc bracing.	
WEBS 2x4 SPF N SLIDER Left 2x4 S	No.2 PF No.2 -t 2-6-0 Right 2x4 S	PF No 2 -t 2-6-0	WEBS	1 Row a	t midpt 9-22	
	11 110.2 1 2 0 0, Hight 2x1 0	11 110.2 1 2 0 0				
(lb) - Max Horz	ngs 0-3-8. : 2=-49(LC 9)					
Max Uplif	t All uplift 100 lb or less at jo	int(s) except 2=-130(LC 8), 15=-414(L	-C 9),			
Max Grav	All reactions 250 lb or less	at joint(s) except 2=620(LC 21), 15=1	951(LC			
	1), 25=1743(LC 21), 22=358	30(LC 1)				
FORCES. (lb) - Max. Co	mp./Max. Ten All forces 250	0 (lb) or less except when shown.				
TOP CHORD 2-4=-639 10-11=-	9/145, 4-5=-84/534, 5-6=-323, ·3062/747. 11-12=-3062/747.	/99, 6-8=-323/99, 8-9=-443/2097, 9-10 12-13=-3010/689. 13-15=-3291/713	)=-2202/521,			
BOT CHORD 2-26=-92	2/424, 25-26=-85/386, 24-25=	-534/133, 22-24=-2096/492, 20-22=-2	270/1311,			
WEBS 4-26=-95	421/2038, 18-19=-572/2757, 1 5/515, 9-20=-213/1050, 10-20	17-18=-601/2968, 15-17=-601/2968  =-264/94, 10-19=-303/1259, 11-19=-6	66/211,			
12-19=-1 0-2238	117/425, 12-18=-86/462, 13-1	7=-38/276, 5-25=-858/271, 8-22=-142	20/381,			
3-2230	13/033, 4-23=-1001/232, 0-2		112431			
1) Unbalanced roof live lo	ads have been considered for	this design			and a second	
2) Wind: ASCE 7-16; Vult	=115mph (3-second gust) Vas	sd=91mph; TCDL=6.0psf; BCDL=4.2p	sf; h=25ft; Cat. II; E	xp C; En	losed;	D
MWFRS (envelope) gal grip DOL=1.60	ble end zone; cantilever left a	nd right exposed ; end vertical left and	I right exposed; Lun	nber DOL	=1.60 plate	( A C
3) Provide adequate drain	age to prevent water ponding		ath an live loads		SEVIER	12 1
<ul><li>5) Provide mechanical cor</li></ul>	nnection (by others) of truss to	bearing plate capable of withstanding	g 130 lb uplift at joir	nt 2, 414 I	ouplift at	*
joint 15, 364 lb uplift at	joint 25 and 766 lb uplift at joi	nt 22. Nernational Residential Code sections	P502 11 1 and P8	02 10 2 3	a solt yes	ren
referenced standard AN	NSI/TPI 1.		1002.11.1 and 10	02.10.2 a	PF-2001018807	IEB
<ol> <li>7) Graphical purlin represe</li> <li>8) Use Simpson Strong-Ti</li> </ol>	entation does not depict the s e LUS24 (4-10d Girder, 2-10d	ize or the orientation of the purlin alon d Truss, Single Plv Girder) or equivale	g the top and/or bot nt spaced at 16-0-0	ttom chor	a. starting at	SH -
2-0-12 from the left end	to 37-11-4 to connect truss(e	es) to front face of bottom chord.		•••••	STONAL EN	Ą
<ol> <li>Use Simpson Strong-Ti 24-0-12 from the left en</li> </ol>	e LUS24 (4-10d Girder, 2-10d id to 35-11-4 to connect truss	(es) to front face of bottom chord.	nt spaced at 11-10-	8 oc max	starting at	
10) Fill all nail holes where	e hanger is in contact with lun	nber. 48"x3 25") toe-nails per NDS quidlings	3		February 24,202	21
A DOMINING OF PROBUZIES 3-	100 (0.140 x3 / 01 3-120 (0.1	TO NO.20 / IOE-Halls per NDO guidlines				
WARNING - Verify design valid for use only w	gn parameters and READ NOTES ON with MiTek® connectors. This design i	THIS AND INCLUDED MITEK REFERENCE PAG s based only upon parameters shown, and is for	E MII-7473 rev. 5/19/202 an individual building co	0 BEFORE I	ISE. ot	
a truss system. Before use building design. Bracing in	e, the building designer must verify the ndicated is to prevent buckling of indi-	e applicability of design parameters and properly vidual truss web and/or chord members only. Ac	incorporate this design iditional temporary and p	into the ove permanent b	aing MiTek <sup>®</sup>	
fabrication, storage, delive	and to prevent collapse with possery, erection and bracing of trusses ar	d truss systems, see ANSI/TPI1 Quali	general guidance regardi ty Criteria, DSB-89 and	BCSI Build	ing Component 16023 Swingley Ridge Rd	
salety information avail	able nom muss Plate institute, 2670	oram migniway, Sulle 203 Waldoff, MD 20601			Chesterrieia, MO 63017	

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #38/MO	
						144927287
2683768	A1	ROOF SPECIAL GIRDER	1	1		
					Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.	430 s Feb	12 2021 MiTek Industries, Inc. Tue Feb 23 12:24:07 2021	Page 2
		ID:ggMH	uYjvKTSN	SqRK pq	YByzXhju- H54ysG3l3kQKd?3uA1FMD9ugcypQ8?mbYn4	TnziFqs

### NOTES-

12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-4=-90, 4-9=-90, 9-10=-90, 10-12=-90, 12-16=-90, 27-31=-20

Concentrated Loads (lb) Vert: 7=-60(F) 10=-90(F) 12=-90(F) 23=-27(F) 26=-207(F) 20=-111(F) 11=-90(F) 19=-111(F) 18=-111(F) 8=-107(F) 21=-214(F) 35=-60(F) 36=-60(F) 37=-60(F) 38=-60(F) 39=-60(F) 39=-60(F) 41=-90(F) 43=-319(F) 44=-216(F) 45=-27(F) 46=-27(F) 47=-27(F) 48=-27(F) 49=-27(F) 50=-216(F) 51=-111(F) 52=-111(F) 53=-214(F) 54=-319(F)



Job	Truss	Truss Type			Qtv	Plv	SUMMIT/	NOODSIDE I	RIDGE #38/MO	
		31				,				144927288
2683768	A2	Roof Special			1	1				
							Job Refere	ence (optional	l)	
Builders FirstSource (Valley	Center), Valley Center	KS - 67147,			8.	430 s Feb	12 2021 Mi	Tek Industrie	es, Inc. Tue Feb 23 12:24:24 2	021 Page 1
				ID:gg	MHuYjvKT	SNSqRK_p	οqYByzXhjι	IZcVXgTkll	lt0tEpKOErEYoMpKSoTvo8GV	/hPTZIziFqb
		14-3-8								
-Q-10-8	6-0-0 12	-8-0 13-7-12	19-4-0	20-1-12	26-0-0	12	28-0-0	32-0-0	40-0-0	4Q-10 <sub>1</sub> 8
0-10-8	6-0-0 6	8-0 0-11-12	5-0-8	0 <sup>l</sup> -9-12	5-10-4	- 1	2-0-0	4-0-0	8-0-0	0-10-8
		0-7-12								Casla 4.70 F

Scale = 1:72.5

February 24,2021

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V MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



L	<u>6-0-0 7-1-12 13-7-12</u>	<u>14-3<sub>1</sub>8 20-1-1</u>	2 26-0-0	28-0-0 32-0-0	40-0-0							
I	6-0-0 1-1-12 6-6-0	0-7-12 5-10-4	4 5-10-4	2-0-0 4-0-0	8-0-0							
Plate Offsets (X,Y)	[3:0-4-4,Edge], [7:0-4-0,0-2-0], [9:0-4-2,	Edge], [11:0-3-15,Edge],	[14:0-3-0,0-1-8]									
LOADING (psf)	SPACING- 2-0-0	CSL	DEFL in	(loc) l/defl l/d	PLATES GRIP							
	Plate Grip DOI 115	TC 0.01	Vort(LL) 0.00	12.25 >000 240	MT20 107/144							
TODE 23.0		10 0.91		13-25 >999 240	197/144							
TCDL 20.0	Lumber DOL 1.15	BC 0.60	Vert(CT) -0.20	13-25 >999 180								
BCLL 0.0	Rep Stress Incr YES	WB 0.74	Horz(CT) -0.01	11 n/a n/a								
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS			Weight: 151 lb FT = 20%							
LUMBER- TOP CHORD       2x4 SPF No.2 *Except* 1-3: 2x6 SPF No.2       TOP CHORD       Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 3-7, 8-9.         BOT CHORD       2x4 SPF No.2       BOT CHORD       Rigid ceiling directly applied.         WEBS       2x4 SPF No.2       BOT CHORD       Rigid ceiling directly applied.         SLIDER       Right 2x4 SPF No.2 - 12-6-0       BOT CHORD       Rigid ceiling directly applied.         REACTIONS.       All bearings 0-3-8.       (lb)       Max Horz 2=68(LC 12) Max Uplift All uplift 100 lb or less at joint(s) 2 except 11=-167(LC 13), 16=-321(LC 8), 19=-220(LC 12) Max Uplift All uplift 100 lb or less at joint(s) except 2=372(LC 1), 11=1064(LC 1), 16=2021(LC 1), 19=1100(LC 1)         FORCES.       (lb)       Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       4-6=-465/153, 6-7=-1165/266, 7-8=-1264/304, 8-9=-1311/314, 9-11=-1460/285         BOT CHORD       18-19=-1004/465, 16-18=-701/115, 13-14=-144/1073, 11-13=-175/1310         WEBS       7-14=-828/204, 8-13=-723/76, 6-14=-298/99(99, 6-66=-1876/366, 3-19=-729/225, 4-19=-736/196, 4-18=-405/146, 6-18=-212/1251												
NOTES- 1) Unbalanced roof liv. 2) Wind: ASCE 7-16; \ MWFRS (envelope) Interior(1) 10-0-0 to left and right expose DOL=1.60 plate grip 3) Provide adequate d 4) This truss has been 5) Provide mechanical 11=167, 16=321, 15 6) This truss is design referenced standard 7) This truss design re sheetrock be applie 8) Graphical purlin rep	e loads have been considered for this de /ult=115mph (3-second gust) Vasd=91m gable end zone and C-C Exterior(2E) -0 28-0-0, Exterior(2E) 28-0-0 to 32-0-0, E ed; end vertical left and right exposed;C o DOL=1.60 rainage to prevent water ponding. designed for a 10.0 psf bottom chord liv connection (by others) of truss to bearin 9=220. ed in accordance with the 2018 Internation ANSI/TPI 1. quires that a minimum of 7/16" structura d directly to the bottom chord. resentation does not depict the size or th	sign. ph; TCDL=6.0psf; BCDL= -10-8 to 3-1-8, Interior(1) tterior(2R) 32-0-0 to 36-0 C for members and force e load nonconcurrent with g plate capable of withsta onal Residential Code sec wood sheathing be appli e orientation of the purlin	=4.2psf; h=25ft; Cat. II; E 9.3-1-8 to 6-0-0, Exterior(2 -0, Interior(1) 36-0-0 to 4 as & MWFRS for reaction h any other live loads. anding 100 lb uplift at joir ctions R502.11.1 and R8 ied directly to the top cho h along the top and/or bot	xp C; Enclosed; 2R) 6-0-0 to 10-0-0, 0-10-8 zone; cantilever s shown; Lumber ht(s) 2 except (jt=lb) 02.10.2 and rd and 1/2" gypsum tom chord.	StatE OF MISSOLUTION SCOTT M. SEVIER NUMBER PE-2001018807							



Scale = 1:71.3



	<u>7-0-0 8-0-0 14-8-</u> 7-0-0 1-0-0 6-8-0	0 1,5-8-8 20-1 1-0-8 4-5	- <u>12 21-4-0 28-0-</u> -4 1-2-4 6-8-0	<u>-0   30-0-0  </u> 0   2-0-0	3-10-4 34-10-4 40-0-0
Plate Offsets (X,Y)	[3:0-4-4,Edge], [7:0-11-0,0-2-0], [11:0-3	3-15,Edge]			0104 100 0112
LOADING         (psf)           TCLL         25.0           TCDL         20.0           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 0.79 BC 0.66 WB 0.68 Matrix-AS	DEFL. in ( Vert(LL) -0.21 14 Vert(CT) -0.43 14 Horz(CT) 0.04	(loc) l/defl L/d I-16 >999 240 I-16 >553 180 11 n/a n/a	PLATES         GRIP           MT20         197/144           MT18HS         197/144           Weight:         159 lb         FT = 20%
LUMBER- TOP CHORD 2x4 S 1-3: 2 BOT CHORD 2x4 S WEBS 2x4 S SLIDER Right	PF 1650F 1.5E *Except* x6 SPF No.2, 7-8,8-12: 2x4 SPF No.2 PF No.2 PF No.2 2x4 SPF No.2 -t 2-6-0 earings 0-3-8	1	BRACING- TOP CHORD SI 2- BOT CHORD R WEBS 1	tructural wood sheathing -0-0 oc purlins (6-0-0 ma igid ceiling directly appli Row at midpt	g directly applied, except ix.): 3-7. ed. 3-17, 7-16
(lb) - Max I Max I Max (	Jplift All uplift 100 lb or less at joint(s) 6 12) Grav All reactions 250 lb or less at joint 1)	xcept 2=-129(LC 12), 11= (s) except 2=538(LC 25),	=-163(LC 13), 19=-107(LC 1: 11=1016(LC 1), 19=804(LC	2), 16=-373(LC : 25), 16=2233(LC	
FORCES.         (lb) - Max           TOP CHORD         2-3=           9-11         9-11           BOT CHORD         17-1           WEBS         3-19           8-14         8-14	. Comp./Max. Ten All forces 250 (lb) o 330/138, 4-6=-65/721, 6-7=-65/723, 7-1 =-1513/252 9=-130/376, 14-16=-92/983, 13-14=-17( =-622/174, 7-16=-1875/291, 6-16=-575/ =-83/583, 7-14=-262/146, 9-14=-575/19	r less except when shown 3=-1062/213, 8-9=-1062/1 )/1396, 11-13=-170/1396 183, 4-17=0/269, 4-16=-1 2	n. 80, 119/233,		
NOTES- 1) Unbalanced roof liv 2) Wind: ASCE 7-16; MWFRS (envelope Interior(1) 12-0-0 tc vertical left and righ 3) Provide adequate c 4) All plates are MT2C 5) This truss has beer 6) Provide mechanica joint 11, 107 lb upli 7) This truss is design referenced standar 8) This truss design re sheetrock be applie 9) Graphical purlin rep	e loads have been considered for this divide 115mph (3-second gust) Vasd=91r ) gable end zone and C-C Exterior(2E) - o 30-0-0, Exterior(2R) 30-0-0 to 34-0-0, lit it exposed;C-C for members and forces trainage to prevent water ponding. • plates unless otherwise indicated. • designed for a 10.0 psf bottom chord lit I connection (by others) of truss to beari it at joint 19 and 373 lb uplift at joint 16. • ed in accordance with the 2018 Internat d ANSI/TPI 1. • equires that a minimum of 7/16" structure • ed directly to the bottom chord. • oresentation does not depict the size or to	esign. hph; TCDL=6.0psf; BCDL >-10-8 to 3-1-8, Interior(1) hterior(1) 34-0-0 to 40-10- & MWFRS for reactions s we load nonconcurrent with hg plate capable of withsta onal Residential Code se I wood sheathing be appl he orientation of the purlir	=4.2psf; h=25ft; Cat. II; Exp ) 3-1-8 to 8-0-0, Exterior(2R) 8 zone; cantilever left and rig hown; Lumber DOL=1.60 pla h any other live loads. anding 129 lb uplift at joint 2 ctions R502.11.1 and R802. lied directly to the top chord a h along the top and/or botton	C; Enclosed; 8-0-0 to 12-0-0, ght exposed ; end ate grip DOL=1.60 , 163 lb uplift at 10.2 and and 1/2" gypsum n chord.	SCOTT M. SEVIER PE-2001018807 PE-2001018807



February 24,2021



<b> </b>	7-1-12	10-0-0	20-1-12		30-0-0		40-0-0						
Plate Offsets (X,Y)	[2:0-3-15,Edge], [9	0:0-4-2,Edge], [12:0-3	15,Edge]										
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING- Plate Grip E Lumber DO Rep Stress Code IRC2	2-0-0 DOL 1.15 L 1.15 Incr YES 018/TPI2014	<b>CSI.</b> TC 0.83 BC 0.71 WB 0.80 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) l/defl 0.16 16-18 >990 0.32 16-18 >486 0.03 2 n/a	L/d 240 180 n/a	<b>PLATES</b> MT20 Weight: 157 lb	<b>GRIP</b> 197/144 FT = 20%					
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF 15-17: WEBS 2x4 SF SLIDER Left 2x	PF No.2 PF No.2 *Except* 2x4 SP 2400F 2.0f PF No.2 4 SPF No.2 -t 2-6-0	E ), Right 2x4 SPF No.2	2 -t 2-6-0	BRACING- TOP CHORD BOT CHORD	Structural woo 2-0-0 oc purlin Rigid ceiling di	d sheathing dire s (5-0-6 max.): rectly applied.	ectly applied, except 5-9.						
REACTIONS. All be (lb) - Max H Max U Max G	EACTIONS. All bearings 0-3-8. (lb) - Max Horz 2=78(LC 16) Max Uplift All uplift 100 lb or less at joint(s) 19 except 2=-150(LC 12), 16=-378(LC 9), 12=-197(LC 13) Max Grav All reactions 250 lb or less at joint(s) except 2=683(LC 25), 16=2341(LC 1), 12=1015(LC 1), 19=571(LC 25)												
FORCES.         (lb) - Max.           TOP CHORD         2-4=- 9-10=           BOT CHORD         2-19=           WEBS         6-18= 4-19=	Comp./Max. Ten 636/195, 4-5=-646 =-1103/244, 10-12= =-166/570, 18-19=- =-75/601, 6-16=-12 =-431/87	All forces 250 (lb) or /213, 5-6=-547/209, 6 1489/342 166/570, 12-14=-241, 14/287, 8-16=-1450/3	less except when shown 8=-74/745, 8-9=-955/26 /1374 i38, 8-14=-141/971, 10-14	1, 4=-475/181,									
NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-16; W MWFRS (envelope) Interior(1) 15-7-14 tr end vertical left and DOL=1.60 3) Provide adequate dr 4) This truss has been 5) Provide mechanical 2=150, 16=378, 12= 6) This truss is designer referenced standard 7) This truss design re- sheetrock be applier 8) Graphical purlin repu	a loads have been of /ult=115mph (3-sec gable end zone an o 30-0, Exterior(2 right exposed;C-C rainage to prevent of designed for a 10.0 connection (by oth e197. ed in accordance w I ANSI/TPI 1. quires that a minim d directly to the bot resentation does no	considered for this de cond gust) Vasd=91m d C-C Exterior(2E) -0 (R) 30-0-0 to 35-7-14, for members and for water ponding. 0 psf bottom chord liv ers) of truss to bearin ith the 2018 Internation um of 7/16" structural tom chord. of depict the size or th	sign. ph; TCDL=6.0psf; BCDL= -10-8 to 3-1-8, Interior(1) Interior(1) 35-7-14 to 40- ses & MWFRS for reaction e load nonconcurrent with g plate capable of withsta onal Residential Code sec wood sheathing be appli	=4.2psf; h=25ft; Cat. 3-1-8 to 10-0-0, Ext 10-8 zone; cantileve ns shown; Lumber D n any other live loads anding 100 lb uplift a ctions R502.11.1 and red directly to the top a along the top and/o	II; Exp C; Enclosed; erior(2R) 10-0-0 to 1 r left and right expos OL=1.60 plate grip s. t joint(s) 19 except (j d R802.10.2 and chord and 1/2" gyp: r bottom chord.	5-7-14, sed ; t=lb) sum	SCOT SCOT SEV DE NUM PE-200	MISSOLA TT M. VIER IBER 1018807					

SSIONAL E February 24,2021





	6-	1-12	12	-0-0		20-0-0	20-1-12	28-0-0	)		33-10-4	40-	0-0
	6-	1-12	<u> </u>	0-4		8-0-0	0-1'-12	7-10-4	4	I	5-10-4	6-1	-12
Plate Offse	ts (X,Y)	[2:0-3-15,Edg	je], [5:0-4-1	1,Edge], [7:0-	4-11,Edge], [	10:0-3-15,Ed	ge]						
LOADING TCLL TCDL BCLL BCDL	(psf) 25.0 20.0 0.0 10.0	SPACI Plate C Lumbe Rep St Code	I <b>NG-</b> Grip DOL er DOL tress Incr IRC2018/TF	2-0-0 1.15 1.15 YES 212014	CSI. TC BC WB Matri	0.68 0.41 0.68 ix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.06 -0.13 0.04	(loc) 13-15 15-17 10	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 173 II	<b>GRIP</b> 197/144 b FT = 20%
LUMBER- TOP CHOR BOT CHOR WEBS SLIDER	RD 2x4 SP 5-7: 2x RD 2x4 SP 14-16: 2x4 SP Left 2x	PF No.2 *Exce 6 SPF No.2 PF No.2 *Exce 2x4 SP 2400F PF No.2 4 SPF No.2 -t	pt* pt* <sup>=</sup> 2.0E 2-6-0, Righ	t 2x4 SPF No	0.2 -t 2-6-0		BRACING TOP CHOI BOT CHOI WEBS	2D 2D	Structu 2-0-0 o Rigid c 1 Row	ral wood c purlins eiling dire at midpt	sheathing dir (10-0-0 max. ctly applied. 7	rectly applied, except ): 5-7. -15, 5-15	:
REACTION	IS. (size Max H Max U Max G	e) 2=0-3-8, orz 2=-91(LC plift 2=-189(L rav 2=948(LC	10=0-3-8, 1 ∺ 17) C 12), 10=-2 C 25), 10=94	5=0-3-8 201(LC 13), 1 ៛8(LC 26), 15	5=-371(LC 8 =2740(LC 1)	)							
FORCES. TOP CHOR	(lb) - Max. RD 2-4=- 8-10-	Comp./Max. 1 1322/297, 4-5	Fen All for 5=-679/202,	ces 250 (lb) c 5-6=-16/902,	or less except 6-7=-17/902	t when shown , 7-8=-679/23	ı. 2,						
BOT CHOR	RD 2-18=	=-285/1212, 1 =-219/1212	7-18=-285/1	212, 15-17=-	98/522, 13-1	5=-36/522, 12	2-13=-219/1212,						
WEBS	4-17= 7-15=	=-770/208, 5-1 =-1594/258, 5-	7=-34/520, -15=-1594/2	7-13=-33/520 81	), 8-13=-770/	205, 6-15=-8	16/266,						
NOTES- 1) Unbalan 2) Wind: AS MWFRS Interior(1 end verti DOL=1.6 3) Provide : 4) This trus 5) Provide : 2=189, 1 6) This trus reference	ced roof live SCE 7-16; V (envelope) I) 17-7-14 tr ical left and 60 adequate dr is has been mechanical 0=201, 15= is is designe ed standard	e loads have b fult=115mph ( gable end zor 28-0-0, Exte right exposed ainage to pre- designed for a connection (b 371. ed in accordar ANSI/TPI 1.	een conside 3-second gu ne and C-C rior(2R) 28-( ;C-C for me vent water p a 10.0 psf bu y others) of nce with the	ered for this d ist) Vasd=91 Exterior(2E) - 0-0 to 33-10 mbers and fo ponding. pottom chord li truss to bear 2018 Internat	esign. mph; TCDL= -0-10-8 to 3-1 4, Interior(1) 3 rces & MWFf ve load nonc ing plate cap: tional Reside	6.0psf; BCDL I-8, Interior(1) 33-10-4 to 40 RS for reactio oncurrent witi able of withstantial Code se	=4.2psf; h=25ft; C 3-1-8 to 12-0-0, I -10-8 zone; cantila ns shown; Lumbe h any other live lo anding 100 lb upli ctions R502.11.1	at. II; E) Exterior( ver left r DOL= ads. 't at join and R8(	xp C; En (2R) 12- and righ 1.60 pla t(s) exce 02.10.2 a	closed; 0-0 to 17- ht expose te grip ept (jt=lb) and	7-14, d ;	STATE OF	F MISSOL

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.







3x8 =

15

3x4 =

2x4 ||

3x6 =

		7-1-12	14-0-0	20-0-0	20-1-12	26-0-0	+	32-10-4	40-0-0	
		7-1-12	6-10-4	6-0-0	0-1-12	5-10-4		6-10-4	7-1-12	
Plate Offsets (	(X,Y)	[2:0-3-15,Edge], [6:0	-4-2,Edge], [8:0-4-2	2,Edge], [12:0-3-15,Edge]						
LOADING (ps	sf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc	) l/defl	L/d	PLATES	GRIP
TCLL 25	.0	Plate Grip DC	DL 1.15	TC 0.72	Vert(LL)	0.05 20-23	3 >999	240	MT20	197/144
TCDL 20	.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.12 20-23	3 >999	180		
BCLL 0	.0	Rep Stress In	cr YES	WB 0.96	Horz(CT)	0.03 1	2 n/a	n/a		
BCDL 10	.0	Code IRC201	18/TPI2014	Matrix-AS					Weight: 167 lb	FT = 20%
LUMBER-					BRACIN	<u>3</u> -				
TOP CHORD	2x4 SF	PF No.2			TOP CHO	ORD Struc	tural woo	d sheathing d	irectly applied, except	
BOT CHORD	2x4 SF	PF No.2 *Except*				2-0-0	) oc purlin	s (10-0-0 max	.): 6-8.	
	16-18:	2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.							
WEBS	PF No.2	WEBS	1 Ro	w at midp	t (	6-17, 8-17				
SLIDER	Left 2x	4 SPF No.2 -t 2-6-0,	Right 2x4 SPF No.2	2 -t 2-6-0			•			

3x6 =

3x4 =

REACTIONS. (size) 2=0-3-8, 12=0-3-8, 17=0-3-8 Max Horz 2=107(LC 12) Max Uplift 2=-189(LC 12), 12=-204(LC 13), 17=-324(LC 8) Max Grav 2=959(LC 25), 12=959(LC 26), 17=2731(LC 1)

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

2x4 |

3x6 ||

- TOP CHORD 2-4=-1298/288, 4-6=-456/167, 6-7=0/820, 7-8=0/820, 8-10=-456/204, 10-12=-1298/323 BOT CHORD 2-20=-284/1182, 19-20=-284/1182, 17-19=-51/290, 15-17=0/290, 14-15=-209/1182, 12-14=-209/1182
- WEBS 4-20=0/288, 4-19=-991/259, 6-19=-58/564, 8-15=-57/564, 10-15=-991/256, 10-14=0/288, 7-17=-575/188, 6-17=-1430/253, 8-17=-1430/232

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-7-14, Interior(1) 19-7-14 to 26-0-0, Exterior(2R) 26-0-0 to 31-7-14, Interior(1) 31-7-14 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=189, 12=204, 17=324.
- 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.



3x6 ||





2-9-8	5-3-0 10-7-8	16-0-0 20-0-	0 20-1-12 24-0-0	31-10-4	40-0-0							
2-9-8	2-5-8 5-4-8	5-4-8 4-0-0	0 0-1'-12 3-10-4	7-10-4	8-1-12	· · · · · · · · · · · · · · · · · · ·						
Plate Offsets (X,Y)	[3:0-6-8,0-2-6], [9:0-4-2,Edge], [13:0-3-1	5,Edge], [23:0-8-4,0-2-8],	, [24:0-3-0,0-2-8]									
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.91 BC 0.95 WB 0.83 Matrix-AS	DEFL. ir Vert(LL) -0.13 Vert(CT) -0.27 Horz(CT) 0.10	) (loc) l/defl L/d 23-24 >999 240 23-24 >885 180 19 n/a n/a	H PLATES MT20	<b>GRIP</b> 197/144 FT = 20%						
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF 2-25: 2 18-22: WEBS 2x4 SF SLIDER Right 2	PF No.2 PF No.2 *Except* 2x6 SPF No.2, 3-23: 2x4 SPF 1650F 1.5E 2x4 SP 2400F 2.0E PF No.2 2x4 SPF No.2 -I 2-6-0	E	BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheatt 2-0-0 oc purlins (10-0- Rigid ceiling directly a 1 Row at midpt	hing directly applied, except -0 max.): 7-9. pplied. 11-17, 8-19							
REACTIONS. (siz Max H Max U Max G	e) 2=0-3-8, 13=0-3-8, 19=0-3-8 lorz 2=122(LC 12) lplift 2=-124(LC 12), 13=-222(LC 13), 19 prav 2=739(LC 25), 13=887(LC 26), 19=	=-411(LC 12) 3134(LC 1)										
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       2-3=-1016/169, 3-33=-1613/303, 4-33=-1573/314, 4-5=-1496/315, 5-6=-1469/364,         6-7=-46/6666, 7-34=0/533, 8-34=0/529, 8-35=-91/653, 9-35=-90/658, 9-36=-133/771,         10-36=-147/675       10-11-153/663         11-37=-052/556       12-37=-1073/33         12-36=-146/9/364       12-37=-1073/33												
BOT CHORD 2-25 19-20 13-15	23/849, 24-25-131/500, 3-24-267/1 0=-1329/306, 18-19=-1329/306, 17-18=- 5=-230/967	183, 23-24=-344/1482, 5 1329/306, 16-17=-230/96	-23=-417/166, 7, 15-16=-230/967,									
WEBS 6-23: 9-17:	=-335/1295, 6-20=-963/244, 7-20=-617/1 =-728/134, 11-17=-1249/304, 11-15=0/35	44, 8-20=-305/1547, 8-17 53, 3-25=-727/208, 8-19=-	7=-200/1584, -3010/428									
<ul> <li>NOTES-</li> <li>1) Unbalanced roof live</li> <li>2) Wind: ASCE 7-16; MWFRS (envelope) Interior(1) 21-7-14 tr vertical left and right</li> <li>3) Provide adequate di</li> <li>4) This truss has been</li> <li>5) Provide mechanical</li> <li>13 and 411 lb uplift</li> <li>6) This truss is designe standard ANSI/TPI</li> <li>7) This truss design re sheetrock be applie</li> <li>8) Graphical purlin rep</li> </ul>	e loads have been considered for this de: /ult=115mph (3-second gust) Vasd=91m gable end zone and C-C Exterior(2E) -0 o 24-0-0, Exterior(2R) 24-0-0 to 29-714, t exposed;C-C for members and forces & rainage to prevent water ponding. designed for a 10.0 psf bottom chord live connection (by others) of truss to bearin at joint 19. ed in accordance with the 2018 Internation 1. quires that a minimum of 7/16" structural d directly to the bottom chord. resentation does not depict the size or the	sign. ph; TCDL=6.0psf; BCDL= -10-8 to 3-1-8, Interior(1) Interior(1) 29-7-14 to 40- MWFRS for reactions sh e load nonconcurrent with g plate capable of withsta anal Residential Code sec wood sheathing be applie e orientation of the purlin	4.2psf; h=25ft; Cat. II; E: 3-1-8 to 16-0-0, Exterior 10-8 zone; cantilever left iown; Lumber DOL=1.60 any other live loads. nding 124 lb uplift at join tions R502.11.1 and R80 ed directly to the top cho along the top and/or bot	xp C; Enclosed; (2R) 16-0-0 to 21-7-14, and right exposed ; enc plate grip DOL=1.60 t 2, 222 lb uplift at joint 02.10.2 and referenced rd and 1/2" gypsum tom chord.	State of A State of A Scott Seven NUM PE-2001 February	MISSOLUE T.M. ER DISSOLUE BER 018807						

16023 Swingley Ridge Rd Chesterfield, MO 63017











L	4-3-8	12-1-12	20-0-0	1	29	-10-4		1	40-0-0			
Г	4-3-8	7-10-4	7-10-4	1	9-	-10-4		I	10-1-12	1		
Plate Off	sets (X,Y)	[2:0-7-11,0-2-0], [12:0-0-15,0-2-5], [16:	0-4-4,0-4-0], [18:0-7-8,0-4-12]									
LOADING TCLL TCDL BCLL BCDL	G (psf) 25.0 20.0 0.0 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.98 BC 0.73 WB 0.96 Matrix-AS	DEFL. Vert(LL) -( Vert(CT) - <sup>2</sup> Horz(CT) (	in 0.39 1.07 0.34	(loc) 14-15 14-15 12	l/defl >999 >449 n/a	L/d 240 180 n/a	PLATES MT20 MT20HS Weight: 191 lb	<b>GRIP</b> 197/144 148/108 FT = 20%		
LUMBER TOP CHO BOT CHO WEBS SLIDER	UMBER-       BRACING-         OP CHORD       2x4 SPF 1650F 1.5E *Except*       TOP CHORD         7-9: 2x4 SPF No.2       BOT CHORD       Rigid ceiling directly applied.         OT CHORD       2x4 SPF No.2 *Except*       BOT CHORD       Rigid ceiling directly applied.         2-18: 2x8 SP 2400F 2.0E, 16-18: 2x6 SPF 2100F 1.8E       12-14: 2x4 SP 2400F 2.0E, 16-18: 2x6 SPF 2100F 1.8E       WEBS       1 Row at midpt       6-16         VEBS       2x4 SPF No.2 *Except*       7-15: 2x4 SPF 1650F 1.5E       EACTIONS.       (size)       2=0-3-8, 12=0-3-8         Max Horz       2=-152(I C 13)       Max Horz       2=-152(I C 13)       A											
	Max H Max U Max G	orz 2=-153(LC 13) plift 2=-325(LC 12), 12=-325(LC 13) rav 2=2277(LC 1), 12=2277(LC 1)										
FORCES TOP CHO BOT CHO WEBS	Max Grav 2=2277(LC 1), 12=2277(LC 1)         FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         FOP CHORD       2-3=-7705/1120, 3-5=-7620/1179, 5-6=-4842/664, 6-7=-3311/495, 7-8=-3293/501, 8-10=-4014/555, 10-12=-4359/614         SOT CHORD       2-18=-1134/7112, 17-18=-777/5241, 16-17=-584/4428, 12-14=-475/3935         WEBS       7-16=-195/1809, 6-16=-1712/384, 14-16=-349/3586, 8-16=-868/290, 8-14=-20/307, 10-14=-467/217, 5-18=-416/2177, 5-17=-981/232											
NOTES- 1) Unbala 2) Wind: MWFF Interio	anced roof live ASCE 7-16; V S (envelope) r(1) 23-0-0 to	e loads have been considered for this do 'ult=115mph (3-second gust) Vasd=91n gable end zone and C-C Exterior(2E) - 40-10-8 zone: cantilever left and right e	esign. hph; TCDL=6.0psf; BCDL=4.2p )-10-8 to 2-1-8, Interior(1) 2-1- xposed : end vertical left and ri	osf; h=25ft; Cat. 8 to 20-0-0, Exte aht exposed:C-(	II; Ex erior( C for	(p C; Er (2R) 20- membe	nclosed; 0-0 to 23- ers and for	0-0, rces	55 OF	MISSS		

- & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 325 lb uplift at joint 2 and 325 lb uplift at joint 12.
- 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.















4	-3-8 -3-8	10-1-12 5-10-4	<u>16-0-0</u> 5-10-4		21-7-8 5-7-8	24-0	-0 <u>25-10</u> 8 1-10-	-0 29-	<u>3-8 30<sub>0</sub>-8</u> 2-8 0-4-0	35-8- 5-8-0	8 +	40-0-0	<u>)</u>	1
Plate Offsets (X,Y)	[2:0-7-11,0-2-0],	[12:0-7-11,0-2-0]	, [14:0-7-0,0-0-4],	[15:0-3-8,0-	2-0], [20:0	)-3-8,0-2-0	], [21:0-5	-8,0-0-4]						
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING Plate Grip Lumber D Rep Stres Code IRC	-         2-0-0           DOL         1.15           IOL         1.15           IOL         1.25           Sincr         YES           C2018/TPI2014	CSI. TC BC WB Matr	0.66 0.84 0.42 ix-AS	D V V H	ert(LL) ert(CT) orz(CT)	in (l -0.41 16 -0.92 16 0.42	loc) l/de 5-18 >99 5-18 >52 12 n	efl L/d 09 240 22 180 /a n/a		PLATES MT20 MT20HS Weight:	<b>; (</b> 1 3 1 211 lb	<b>FT =</b>	4 8 20%
LUMBER- TOP CHORD 2x4 S 6-8: 2 BOT CHORD 2x4 S 2-21,1 17-19 WEBS 2x4 S	PF 1650F 1.5E *E x4 SPF No.2 PF No.2 *Except* 12-14: 2x8 SP 240 : 2x6 SPF No.2 PF No.2	00 2 0	4-17: 2x6 SPF 21	00F 1.8E	B Ti B W	RACING- OP CHOR OT CHOR /EBS	D St 2- D Ri 1	tructural w 0-0 oc pui igid ceiling Row at mi	ood sheathir lins (2-10-3 directly app dpt	ng directly max.): 6-8 lied. 3-20, 4	applied, e: }. 5-18, 9-16,	xcept , 11-15		
Max I Max I Max I Max I	ze) 2=0-3-8, 12= Horz 2=-122(LC 1 Uplift 2=-330(LC 1 Grav 2=2279(LC	=0-3-8 7) 2), 12=-330(LC 1 1), 12=2279(LC 1	3) )											
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       2-3=-7736/1134, 3-5=-5360/746, 5-6=-4051/558, 6-7=-3627/544, 7-8=-3626/545, 8-9=-4050/559, 9-11=-5364/709, 11-12=-7733/1036         BOT CHORD       2-21=-1117/7155, 20-21=-1101/7068, 18-20=-667/4897, 16-18=-349/3781, 15-16=-515/4901, 14-15=-889/7066, 12-14=-902/7152         WEBS       3-21=-119/1056, 3-20=-2212/442, 5-20=-67/707, 5-18=-1459/337, 6-18=-107/1107, 11-14=-82/1052, 8-16=-115/1107, 9-16=-1464/321, 11-15=-2205/386, 7-18=-474/153, 7-16=-474/155, 9-15=-54/711														
<ul> <li>NOTES-</li> <li>1) Unbalanced roof liv</li> <li>2) Wind: ASCE 7-16; MWFRS (envelope Interior(1) 20-00 tc vertical left and righ</li> <li>3) Provide adequate of</li> <li>4) All plates are MT20</li> <li>5) This truss has beer</li> <li>6) Bearing at joint(s) 2 capacity of bearing</li> <li>7) Provide mechanica joint 12.</li> <li>8) This truss is design referenced standar</li> <li>9) This truss design re sheetrock be applie</li> <li>10) Graphical purlin re</li> </ul>	ve loads have beer Vult=115mph (3-s ) gable end zone : o 24-0-0, Exterior(2) the exposed (C-C for drainage to prever 0 plates unless oth n designed for a 11 2, 12 considers pa surface. al connection (by o ned in accordance d ANSI/TPI 1. equires that a mini- equires that a mini- equ	n considered for t econd gust) Vaso and C-C Exterior( 2R) 24-0-0 to 24 members and fo it water ponding. erwise indicated. 0.0 psf bottom ch rallel to grain valu thers) of truss to with the 2018 Inte mum of 7/16" stru ottom chord. s not depict the s	his design. =91mph; TCDL= 2E) -0-10-8 to 2- 2-15, Interior(1) 2: rces & MWFRS for ord live load nonce using ANSI/TP opearing plate cap ernational Reside actural wood sheat ze or the orientat	6.0psf; BCDI I-8, Interior(1 8-2-15 to 40- or reactions s concurrent wi I 1 angle to g able of withs ntial Code se athing be app ion of the pur	L=4.2psf; ) 2-1-8 tot 10-8 zone shown; Lu th any oth grain form tanding 3 ections R blied direc rlin along	h=25ft; Ca 16-0-0, E e; cantileve imber DOI her live loa ula. Buildi 30 lb uplift 502.11.1 a tly to the to the top an	t. II; Exp ( terior(2R er left and =1.60 pla ds. ng design at joint 2 nd R802.1 op chord a d/or botto	C; Enclose ) 16-0-0 tr right expo ate grip DC and 330 II 10.2 and and 1/2" g m chord.	ed; 20-0-0, osed ; end DL=1.60 verify o uplift at ypsum		P P P P	OF M SCOTI SEVII NUME E-20010	11SS M. ER 11880 L EX 24,2	

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

NITEK 16023 Swingley Ridge Rd Chesterfield, MO 63017



	<u>4-3-8</u> <u>9-1-12</u> <u>4-3-8</u> <u>4-10-4</u>	14-0-0		20-0-8	26-0-0	<u>26-1-0</u> 0-1-0	32-10-4 6-9-4	40-0-0				
Plate Offsets (X,Y)	[2:0-4-7,Edge], [2:0-4-11,E	Edge], [6:0-4-2,Edg	e], [8:0-6-0,0-	1-5], [12:0-0-15,0-2	2-5], [14:0-3-	-8,Edge], [16:0	-7-8,Edge], [20:0	)-3-8,0-2-0]				
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TPI	2-0-0 1.15 1.15 YES 12014	<b>CSI.</b> TC 0.96 BC 0.87 WB 0.95 Matrix-AS	DEFL Vert( Vert( Horz(	ir .L) -0.39 CT) -0.87 CT) 0.40	i (loc) l/de 17-18 >99 17-18 >55 12 n/	fl L/d 9 240 2 180 a n/a	PLATES MT20 MT20HS Weight: 189 lb	<b>GRIP</b> 197/144 148/108 FT = 20%			
LUMBER- TOP CHORD 2x4 SI 6-8: 2x BOT CHORD 2x6 SI 12-15: WEBS 2x4 SI WEDGE Left: 2x4 SPF No.2 SLIDER Right 2	PF No.2 *Except* (6 SPF No.2, 8-9,9-13: 2x4 PF 2100F 1.8E *Except* 2x4 SP 2400F 2.0E, 16-19 PF No.2 2x4 SPF No.2 -t 2-6-0	SPF 1650F 1.5E 9: 2x4 SPF 1650F <sup>-</sup>	1.5E	BRAC TOP ( BOT (	Cing- Chord Chord	Structural wo 2-0-0 oc purl Rigid ceiling	ood sheathing dir ins (3-1-8 max.): directly applied.	rectly applied, except 6-8.				
REACTIONS. (siz Max H Max L Max C	te) 2=0-3-8, 12=0-3-8 Horz 2=108(LC 16) Jplift 2=-271(LC 12), 12=-2 Grav 2=2279(LC 1), 12=22	70(LC 13) 79(LC 1)										
$\begin{array}{l} \mbox{Max Grav } 2=2279(LC 1), 12=2279(LC 1) \\ \hline \mbox{FORCES.} & (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. \\ \mbox{FOP CHORD} & 2.3=-7831/927, 3-5=-5499/692, 5-6=-4357/594, 6-7=-4492/656, 7-8=-4490/655, \\ & 8-10=-4407/592, 10-12=-4349/553 \\ \mbox{3OT CHORD} & 2-21=-901/7261, 20-21=-885/7158, 18-20=-534/5038, 17-18=-404/3939, 16-17=-398/3976, \\ & 12-14=-434/3925 \\ \mbox{NEBS} & 8-16=-72/696, 3-21=-127/1234, 6-18=-104/779, 6-17=-138/899, 7-17=-757/218, \\ & 14-16=-427/3860, 10-16=-33/326, 10-14=-503/133, 3-20=-2178/384, 5-20=-61/717, \\ & 5-18=-1296/275, 8-17=-125/873 \\ \hline \end{array}$												
NOTES- 1) Unbalanced roof liv 2) Wind: ASCE 7-16; \ MWFRS (envelope) 18-2-15, Interior(1) exposed ; end vertii grip DOL=1.60 3) Provide adequate d 4) All plates are MT20 5) This truss has been 6) Bearing at joint(s) 2 capacity of bearing 7) Provide mechanical joint 12. 8) This truss is design re Contineetock bageplie	e loads have been consider Vult=115mph (3-second gus ) gable end zone and C-C E 18-2-15 to 26-1-0, Exterior( cal left and right exposed;C rainage to prevent water po plates unless otherwise inc designed for a 10.0 psf bo considers parallel to grain surface. I connection (by others) of t ed in accordance with the 2 d ANSI/TPI 1. requires that a minimum of 7/ d directly to the bottom cho	red for this design. st) Vasd=91mph; T Exterior(2E) -0-10-8 (2R) 26-1-0 to 30-3 -C for members ar onding. dicated. ttom chord live loa value using ANSI/ russ to bearing pla 2018 International I /16" structural woo rd.	CDL=6.0psf; E 3 to 2-2-11, Int 5-15, Interior(1) ad forces & MV d nonconcurre TPI 1 angle to te capable of v Residential Co d sheathing be	BCDL=4.2psf; h=2 erior(1) 2-2-11 to 1 ) 30-3-15 to 40-10- VFRS for reactions ent with any other li grain formula. Bu withstanding 271 lk de sections R502. e applied directly to	5ft; Cat. II; E 4-0-0, Exter 8 zone; can shown; Lur ve loads. Iding design o uplift at joir 11.1 and R8 o the top cho	xp C; Enclose ior(2R) 14-0-0 tilever left and nber DOL=1.6 er should verif nt 2 and 270 lb 02.10.2 and ord and 1/2" gy	d; to right 0 plate y uplift at psum	PE-200 Februa	MISSOLUTI M. VIER DIDI8807 AL ENGL Y 24,2021			
WARNING - Verify Design valid for use o a trus system. Befor building design. Bra is always required for fabrication, storage, o Safety Information	design parameters and READ NOT only with MITek® connectors. This e use, the building designer must v ing indicated is to prevent buckling stability and to prevent collapse w ellivery, rection and bracing of tru available from Truss Plate Institute	ES ON THIS AND INCL design is based only up verify the applicability of g of individual truss web ith possible personal in sses and truss systems a, 2670 Crain Highway,	UDED MITEK REF on parameters sho design parameter and/or chord men jury and property c s, see <b>AN</b> Suite 203 Waldorf	FRENCE PAGE MII-74' own, and is for an indivi rs and properly incorpor mbers only. Additional t damage. For general gi SI/TPI1 Quality Criteri , MD 20601	<sup>73</sup> rev. 5/19/202 dual building co ate this design emporary and p uidance regardi <b>a, DSB-89 and</b>	0 BEFORE USE. omponent, not into the overall bermanent bracing ng the BCSI Building C	omponent	MiTek 16023 Swingle Chesterfield, M	y Ridge Rd IO 63017			

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #38/MO	
						144927300
2683768	A14	Нір	1	1		
					Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.	430 s Feb	12 2021 MiTek Industries, Inc. Tue Feb 23 12:24:14 2021	Page 2
		ID:ggN	1HuYjvKTS	SNSqRK_p	qYByzXhju-He0jQFMSfDdRgh2Po8fu8hy42QKvZEVoC7_	yDtziFql

NOTES-

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











4-:	3-8 10-0-0 14	-11-2 18-0-8	20-0-0 25-0-14	26-1-0 28-10-8 30-0-0	33-9-0 37-2-8 40-0-0
Plate Offsets (X,Y)	[2:0-0-13,0-1-4], [4:0-2-3,Edge], [9:0-4-	),0-3-4], [11:0-10-6,Edge]	, [11:0-2-4,0-1-10], [12:0-;	2-14,0-0-0], [24:0-3-8,0-2	2-0], [25:0-5-8,0-0-4]
LOADING (psf) TCLL 25.0 TCDL 20.0 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 0.89 BC 0.85 WB 0.51 Matrix-AS	DEFL. in Vert(LL) -0.59 Vert(CT) -1.29 Horz(CT) 0.53	(loc) l/defl L/d 21 >819 240 21 >372 180 12 n/a n/a	PLATES         GRIP           MT20         197/144           MT20HS         148/108           MT18HS         197/144           Weight: 241 lb         FT = 20%
LUMBER- TOP CHORD 2x4 SF 9-12: 2 BOT CHORD 2x4 SF 2-25: 2 12-13: WEBS 2x4 SF OTHERS 2x8 SF LBR SCAB 9-12 2	PF 1650F 1.5E *Except* x8 SP 2400F 2.0E PF No.2 *Except* x8 SP 2400F 2.0E, 22-25,11-16,16-22: 2x6 SPF No.2 PF No.2 2400F 2.0E x8 SP 2400F 2.0E one side	2x6 SPF 2100F 1.8E	BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheathir 2-0-0 oc purlins (2-2-0 m Rigid ceiling directly app 1 Row at midpt	ng directly applied, except nax.): 4-9. lied. 3-24
REACTIONS. (Siz Max H Max U Max G	e) 2=0-3-8, 12=0-3-8 lorz 2=83(LC 16) lplift 2=-318(LC 8), 12=-290(LC 9) irav 2=2278(LC 1), 12=2198(LC 1)				
FORCES.         (lb) - Max.           TOP CHORD         2-3=           8-9=         8-9=           BOT CHORD         2-25:           19-2         3-25:           WEBS         3-25:           9-20:         9-20:	Comp./Max. Ten All forces 250 (lb) or 7719/1059, 3-4=-5519/833, 4-5=-6237/ 6234/1017, 9-10=-5544/836, 10-11=-69 =-952/7141, 24-25=-940/7058, 23-24=-6 0=-674/5082, 15-19=-671/5025, 14-15= =-80/988, 3-24=-2040/368, 4-24=-54/77 =-97/618, 5-23=-863/212, 4-23=-288/166 =-277/1513, 10-14=-1774/282	less except when shown 1019, 5-6=-6666/1089, 6-1 28/996, 11-12=-1095/170 77/5025, 21-23=-904/623 -674/5082, 11-14=-912/67 , 9-14=-53/779, 6-21=-45 09, 8-21=-96/626, 8-20=-7	8=-6666/1089, ) 44, 20-21=-895/6234, 766, 11-13=-66/556 55/145, 798/200,		
NOTES- 1) Attached 11-1-0 sca at 3-4-15 from end a 2) Unbalanced roof live 3) Wind: ASCE 7-16; W MWFRS (envelope) Interior(1) 14-2-15 tr end vertical left and DOL=1.60 4) Provide adequate d 5) All plates are MT20 6) This truss has been 7) Bearing at joint(s) 2 capacity of bearing : 8) Provide mechanical joint 12. 9) This truss is designed Comference of stage data	ab 9 to 12, front face(s) 2x8 SP 2400F 2. at joint 9, nail 2 row(s) at 7" o.c. for 2-0-0 loads have been considered for this de /ult=115mph (3-second gust) Vasd=91rr gable end zone and C-C Exterior(2E) -( 0 30-0-0, Exterior(2R) 30-0-0 to 34-0-14 right exposed;C-C for members and for rainage to prevent water ponding. plates unless otherwise indicated. designed for a 10.0 psf bottom chord liv. 12 considers parallel to grain value usi surface. connection (by others) of truss to bearir ed in accordance with the 2018 Internati I ANSI/TPI 1.	0E with 2 row(s) of 10d (0 ; starting at 6-6-12 from e sign. ph; TCDL=6.0psf; BCDL= 1-10-8 to 2-1-8, Interior(1) Interior(1) 34-0-14 to 39- ces & MWFRS for reaction e load nonconcurrent with ng ANSI/TPI 1 angle to gr ing plate capable of withsta- ponal Residential Code second	0.131"x3") nails spaced 9" end at joint 9, nail 2 row(s) =4.2psf; h=25ft; Cat. II; Ex 2-1-8 to 10-0-0, Exterior( .11-12 zone; cantilever lef ns shown; Lumber DOL=' h any other live loads. ain formula. Building des anding 318 lb uplift at joint ctions R502.11.1 and R80	o.c.except : starting at 2" o.c. for 4-3-0. :p C; Enclosed; 2R) 10-0-0 to 14-2-15, t and right exposed ; 1.60 plate grip igner should verify t 2 and 290 lb uplift at 02.10.2 and	Sthree OF MISSOUR SCOTT M. SEVIER NUMBER PE-2001018807 February 24,2021
WARNING - Verify Design valid for use o a truss system. Befor building design. Brac is always required for fabrication, storage, d Safety Information	design parameters and READ NOTES ON THIS AN nly with MiTek® connectors. This design is based use, the building designer must verify the applica ing indicated is to prevent buckling of individual tru stability and to prevent collapse with possible pers elivery, erection and bracing of trusses and truss s available from Truss Plate Institute, 2670 Crain Hig	DINCLUDED MITEK REFERENC only upon parameters shown, an pility of design parameters and p ss web and/or chord members ou onal injury and property damage stems, see <b>ANS/ITPI1</b> hway, Suite 203 Waldorf, MD 20	CE PAGE MII-7473 rev. 5/19/2020 di si for an individual building con roperty incorporate this design in nly. Additional temporary and pe . For general guidance regarding <b>Guality Criteria, DSB-89 and B</b> 6601	BEFORE USE. nponent, not to the overall armanent bracing g the BCSI Building Component	16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #38/MO	
						144927302
2683768	A16	Hip	1	1		
					Job Reference (optional)	
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Feb 23 12:24:18 2021				Page 2		
		ID:ggMHuYjvKTSNSqRK_pqYByzXhju-9PFEGdPzjS7s9JLA1_kqJX7o42h8V9ON7ly9MfziFqh				

## NOTES-

10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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





<u>⊢ 4-</u> 4-	<u>3-8 8-0-0 14-0-5</u> 3-8 3-8-8 6-0-5	19-7-12	<u>20-0-11 25-3-4</u> 0-4-14 5-2-9	<u>26-1-0 28-10-8 32-0-0</u> 0-9-12 2-9-8 3-1-8	+ <u>37-2-8</u> <u>40-0-0</u> 5-2-8 <u>2-9-8</u>		
Plate Offsets (X,Y)	[9:0-7-0,0-4-0], [11:0-10-6,Edge], [11:0-	4-14,0-1-10], [12:0-3-2,0-	0-0], [19:0-2-0,0-0-0], [20	):0-3-8,0-2-8], [22:0-3-8,0-2-8]			
LOADING         (psf)           TCLL         25.0           TCDL         20.0           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 0.96 BC 0.83 WB 0.66 Matrix-AS	DEFL. in Vert(LL) -0.70 Vert(CT) -1.54 Horz(CT) 0.57	(loc) I/defl L/d 20-21 >684 240 20-21 >311 180 12 n/a n/a	PLATES         GRIP           MT20         197/144           MT20HS         148/108           Weight: 241 lb         FT = 20%		
LUMBER- TOP CHORD 2x6 SF 4-7: 2x BOT CHORD 2x6 SF 18-19, WEBS 2x4 SF 3-25: 2 OTHERS 2x8 SF 16-16: LBR SCAB 9-12 2	<ul> <li><sup>2</sup>F No.2 *Except*</li> <li><sup>6</sup>G SPF 2100F 1.8E, 9-12: 2x8 SP 2400F</li> <li><sup>3</sup>F 2100F 1.8E *Except*</li> <li><sup>1</sup>7-18,15-17: 2x4 SPF No.2, 11-13,12-13</li> <li><sup>2</sup>F No.2 *Except*</li> <li><sup>2</sup>X6 SPF No.2</li> <li><sup>2</sup> 2400F 2.0E *Except*</li> <li><sup>2</sup>2x4 SPF No.2</li> <li><sup>1</sup>x8 SP 2400F 2.0E one side</li> </ul>	2.0E 3: 2x6 SPF No.2	BRACING- TOP CHORD BOT CHORD	Structural wood sheathing di 2-0-0 oc purlins: 4-9. Rigid ceiling directly applied.	rectly applied, except		
REACTIONS. (siz Max H Max L Max C	e) 2=0-3-8, 12=0-3-8 łorz 2=69(LC 16) Jplift 2=-342(LC 8), 12=-314(LC 9) Śrav 2=2278(LC 1), 12=2198(LC 1)						
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       2-3=-7980/1192, 3-4=-6420/1022, 4-5=-8347/1419, 5-6=-9194/1566, 6-8=-9194/1566, 8-9=-98502/1447, 9-10=-6385/1025, 10-11=-7162/1100, 11-12=-1275/208         BOT CHORD       2-25=-1070/7365, 24-25=-1049/7230, 22-24=-883/5948, 21-22=-1329/8345, 20-21=-1351/8502, 19-20=-903/6122, 15-19=-893/6003, 14-15=-903/6122, 11-14=-1020/6991, 11-13=-93/701         WEBS       3-25=-145/1214, 3-24=-1295/247, 4-24=-53/780, 4-22=-493/2704, 5-22=-960/248,							
9-14 6-21 NOTES- 1) Attached 8-11-0 sca at 0-0-3 from end at 2) Unbalanced roof liv 3) Wind: ASCE 7-16; \ MWFRS (envelope) Interior(1) 12-2-15 t end vertical left and DOL=1.60 4) Provide adequate d 5) All plates are MT20 6) This truss has been 7) Bearing at joint(s) 2 capacity of bearing 8) Provide mechanical Coridinite@on page 2	=-14/536, 8-20=-860/231, 9-20=-488/268 =-497/154, 8-21=-137/849 ab 9 to 12, front face(s) 2x8 SP 2400F 2. t joint 9, 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=91m gable end zone and C-C Exterior(2E) -C o 32-0-0, Exterior(2R) 32-0-0 to 36-2-15, right exposed;C-C for members and ford rainage to prevent water ponding. plates unless otherwise indicated. designed for a 10.0 psf bottom chord liv , 12 considers parallel to grain value usir surface. I connection (by others) of truss to bearir	of, 10-14=-970/173, 5-21 0E with 2 row(s) of 10d (( starting at 2-1-12 from er sign. ph; TCDL=6.0psf; BCDL= -10-8 to 2-1-8, Interior(1) Interior(1) 36-2-15 to 39- ces & MWFRS for reaction e load nonconcurrent with ng ANSI/TPI 1 angle to gr ng plate capable of withsta	=-172/1017, 0.131"x3") nails spaced 9 Id at joint 9, nail 2 row(s) =4.2psf; h=25ft; Cat. II; E 2-1-8 to 8-0-0, Exterior(; -11-12 zone; cantilever le ns shown; Lumber DOL= h any other live loads. rain formula. Building des anding 342 lb uplift at joir	" o.c.except : starting at 2" o.c. for 6-6-0. xp C; Enclosed; 2R) 8-0-0 to 12-2-15, ft and right exposed ; :1.60 plate grip signer should verify nt 2 and 314 lb uplift at	February 24,2021		
WARNING - Verify Design valid for use of a truss system. Befor building design. Brac is always required for fabrication, storage, o Safety Information	design parameters and READ NOTES ON THIS AND nly with MITek® connectors. This design is based of e use, the building designer must verify the applicat sing indicated is to prevent buckling of individual true stability and to prevent collapse with possible persi Jelivery, erection and bracing of trusses and truss s available from Truss Plate Institute, 2670 Crain Hig	D INCLUDED MITEK REFERENC only upon parameters shown, an ility of design parameters and p is web and/or chord members o onal injury and property damage stems, see <b>ANS/ITPI</b> way, Suite 203 Waldorf, MD 20	E PAGE MII-7473 rev. 5/19/202 di si for an individual building co roperty incorporate this design in ny. Additional temporary and p b. For general guidance regardii f Quality Criteria, DSB-89 and 3601	) BEFORE USE. mponent, not nto the overall errmanent bracing ng the BCSI Building Component	16023 Swingley Ridge Rd Chesterfield, MO 63017		

[	-		0			
Job	Iruss	Iruss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #38/MO	
						144027202
						144927303
2683768	A17	Hip	1	1		
			1.		lab Defense (anti-nal)	
					Job Reference (optional)	
Builders FirstSource (Valley	Center). Valley Center, K	S - 67147.	8.	430 s Feb	12 2021 MiTek Industries, Inc. Tue Feb 23 12:24:19 2021	Page 2
		,				
		ID:g	IgMHuYjvK	ISNSqRK	LogYByzXhju-ebpcUzPbUlFjm1wNbhF3rlfyrR2iEZAXMPhj	u5zı⊦qg

## NOTES-

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

10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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





Job	russ	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE #38/MO	
2683768 A1	18	HIP GIRDER	1	•		144927304
				2	Job Reference (optional)	
Builders FirstSource (Valley Ce	enter). Vallev Center, K	S - 67147.	8.	430 s Feb	12 2021 MiTek Industries. Inc. Tue Feb 23 12:24:23 2021	Page 2

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Feb 23 12:24:23 2021 Page 2 ID:ggMHuYjvKTSNSqRK\_pqYByzXhju-WM37JKT6X\_I9F4E8qXJ?0bqeG3Q\_ALN6H1fw1sziFqc

#### NOTES-

- 8) Bearing at joint(s) 2, 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 548 lb uplift at joint 2, 133 lb uplift at joint 13 and 1419 lb uplift at joint 20. 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.
- Inis truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and re
   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- TAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 473 lb down and 145 lb up at 6-0-0, 120 lb down and 57 lb up at 6-0-12, 120 lb down and 57 lb up at 10-0-12, 116 lb down and 56 lb up at 12-0-12, 116 lb down and 56 lb up at 14-0-12, 116 lb down and 56 lb up at 16-0-12, 116 lb down and 56 lb up at 16-0-12, 116 lb down and 56 lb up at 16-0-12, 116 lb down and 56 lb up at 16-0-12, 116 lb down and 56 lb up at 23-11-4, and 116 lb down and 56 lb up at 26-2-12, and 611 lb down and 203 lb up at 33-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

## LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf) Vert: 1-4=-90, 4-11=-90, 11-12=-90, 12-14=-90, 25-26=-20, 18-25=-20, 19-20=-20, 12-17=-20, 15-29=-20

#### Concentrated Loads (lb)

Vert: 4=-89(B) 8=-84(B) 9=-84(B) 18=-116 24=-593(B=-473) 22=-116 6=-84(B) 11=-116(B) 16=-611(B) 10=-116(B) 33=-89(B) 34=-84(B) 35=-84(B) 37=-84(B) 38=-84(B) 39=-84(B) 39=-84(B) 40=-90(B) 41=-116(B) 42=-120 43=-120 44=-116 45=-116 46=-116 47=-116 48=-116 49=-116 50=-111(B) 52=-85(B) 53=-85(B) 53=





	L		6-0-0							12-0-0		
			6-0-0							6-0-0		I
Plate Offs	sets (X,Y)	[2:0-1-12,0-0-4], [6:0-2-3	,0-0-4]									
LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	тс	0.38	Vert(LL)	-0.04	8-15	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.07	8-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TF	PI2014	Matri	x-AS						Weight: 40 lb	FT = 20%

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x4 SPF No.2 - t 2-6-0, Right 2x4 SPF No.2 - t 2-6-0

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied. Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=0-3-8 Max Horz 2=50(LC 12)

Max Horz 2=50(LC 12) Max Uplift 2=-111(LC 12), 6=-111(LC 13) Max Grav 2=739(LC 1), 6=739(LC 1)

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

TOP CHORD 2-4=-863/302, 4-6=-863/302

BOT CHORD 2-8=-171/786, 6-8=-171/786

WEBS 4-8=0/257

### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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=111, 6=111.

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.







- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed;
- MWFRS (envelope) gable end zone; 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=235, 7=235.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 290 lb down and 91 lb up at 4-0-0, and 290 lb down and 91 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf) Vert: 1-4=-90, 4-5=-90, 5-8=-90, 12-16=-20
  - Concentrated Loads (lb)
    - Vert: 4=-60(B) 5=-60(B) 11=-290(B) 9=-290(B) 10=-27(B) 20=-60(B)







		1	2-8-7	·
LOADING (psf)	SPACING- 2-0-0 Plate Grip DOI 1 15	<b>CSI.</b> TC 0.13	DEFL. in (loc) I/defl L/d	PLATES GRIP MT20 197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00 7 >999 180	197/144
BCLL 0.0 BCDL 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.00 Matrix-MP	Horz(CT) 0.00 3 n/a n/a	Weight: 10 lb FT = 20%

BRACING-TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD2x4 SPF No.2BOT CHORD2x6 SPF No.2

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical

Max Horz 2=52(LC 8)

Max Uplift 3=-30(LC 12), 2=-83(LC 8)

Max Grav 3=83(LC 1), 2=283(LC 1), 4=54(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C 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.



Structural wood sheathing directly applied or 2-8-7 oc purlins.

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

February 24,2021





			1	2-6-5	
LOADING	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) -0.00 7 >999 240	MT20 197/144
TCDL	20.0	Lumber DOL 1.15	BC 0.03	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: 9 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

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

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical

Max Horz 2=49(LC 8)

Max Uplift 3=-27(LC 12), 2=-82(LC 8)

Max Grav 3=76(LC 1), 2=275(LC 1), 4=50(LC 3)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right
- exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.



Structural wood sheathing directly applied or 2-6-5 oc purlins.

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





	1		3-10-10	1	8-4-5	1		
			3-10-10	1	4-5-11			
Plate Offsets (X,Y)	[2:0-2-7,0-1-8]							
LOADING (psf)	SPACING-	2-0-0	CSL	DEFL	in (loc) l/defl l/d	PLATES	GRIP	

	-			BRACING-	1
BCDL	10.0	Code IRC2018/TPI2014	Matrix-MP		Weight: 35 lb FT = 20%
BCLL	0.0	Rep Stress Incr NO	WB 0.16	Horz(CT) 0.11 8 n/a n/a	
TCDL	20.0	Lumber DOL 1.15	BC 0.77	Vert(CT) -0.25 9 >386 180	
TCLL	25.0	Plate Grip DOL 1.15	TC 1.00	Vert(LL) -0.12 9 >823 240	MT20 197/144
LOADING	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP

TOP CHORD 2x6 SPF No.2 BOT CHORD 2x4 SPF No.2 \*Except\* 2-9: 2x6 SPF No.2 WEBS 2x4 SPF No.2

TOP CHORD BOT CHORD

Structural wood sheathing directly applied, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-9.

REACTIONS. (size) 8=Mechanical, 2=0-4-9 Max Horz 2=102(LC 5) Max Uplift 8=-142(LC 8), 2=-150(LC 4) Max Grav 8=555(LC 1), 2=609(LC 1)

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

3-4=-954/240 TOP CHORD BOT CHORD 3-8=-275/1037 WEBS 4-8=-1124/316

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

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

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=142. 2=150.

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=-90, 3-5=-90, 5-6=-40, 9-10=-20, 3-7=-20 Concentrated Loads (lb) Vert: 14=2(F=1, B=1) 15=-147(F=-74, B=-74)







- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=117, 2=137.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)
  - Vert: 1-4=-90, 4-5=-40, 8-9=-20, 6-8=-20 Concentrated Loads (lb)
  - Vert: 13=-36(F=-18, B=-18) 14=2(F=1, B=1) 15=-35(F=-18, B=-18)



16023 Swingley Ridge Rd Chesterfield, MO 63017



	2-9-3		1			5-6-6		
	2-9-3		1			2-9-3	1	
2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
1.15	TC 0.15	Vert(LL)	-0.00	9	>999	240	MT20	197/144
1.15	BC 0.12	Vert(CT)	-0.01	9	>999	180		
NO	WB 0.06	Horz(CT)	0.00	8	n/a	n/a		
PI2014	Matrix-MP						Weight: 23 lb	FT = 20%
	I	BRACING-						
	2-0-0 1.15 1.15 NO PI2014	2-9-3 2-0-0 <b>CSI.</b> 1.15 TC 0.15 1.15 BC 0.12 NO WB 0.06 Pl2014 Matrix-MP	2-9-3 2-0-0 1.15 1.15 NO Pl2014 CSI. TC 0.15 BC 0.12 Vert(LL) Vert(LL) Vert(CT) Horz(CT) Horz(CT) BRACING-	2-9-3           2-0-0         CSI.           1.15         TC 0.15           1.15         BC 0.12           NO         WB 0.06           Pl2014         Matrix-MP           BRACING-	2-9-3           2-0-0         CSI.           1.15         TC 0.15           1.15         BC 0.12           NO         WB 0.06           Pl2014         Matrix-MP   BRACING-	2-9-3           2-0-0         CSI.           1.15         TC 0.15           1.15         BC 0.12           NO         WB 0.06           Pl2014         Matrix-MP   BRACING-	2-9-3         2-9-3           2-0-0         CSI.           1.15         TC 0.15           1.15         BC 0.12           NO         WB 0.06           Pl2014         Matrix-MP           BRACING-	2-9-3         2-9-3           2-0-0         CSI.         DEFL.         in         (loc)         l/defl         L/d         PLATES           1.15         TC         0.15         Vert(LL)         -0.00         9         >999         240         MT20           1.15         BC         0.12         Vert(CT)         -0.01         9         >999         180           NO         WB         0.06         Horz(CT)         0.00         8         n/a         n/a           Pl2014         Matrix-MP         BRACING-         BRACING-         Weight: 23 lb         Weight:

TOP CHORD2x4 SPF No.2TOP CHORDStructural wood sheathing directly applied or 5-6-6 oc purlins,<br/>except end verticals.BOT CHORD2x4 SPF No.2BOT CHORDRigid ceiling directly applied or 10-0-0 oc bracing.WEBS2x4 SPF No.2 - t 2-6-0BOT CHORDRigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-4-9, 8=Mechanical Max Horz 2=87(LC 7) Max Uplift 2=-104(LC 4), 8=-62(LC 8)

Max Grav 2=412(LC 1), 8=292(LC 1)

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

TOP CHORD 2-4=-324/59 BOT CHORD 2-9=-62/329, 8-9=-62/329 WEBS 4-8=-363/89

NOTES-

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

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

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=104.

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

- 6) "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: 1-5=-90, 5-6=-40, 7-10=-20 Concentrated Loads (lb)









TOP CHORD

BOT CHORD

TOP CHORD

REACTIONS.

2x6 SPF No.2 BOT CHORD

2x4 SPF No.2

3=Mechanical, 2=0-3-8, 4=Mechanical (size) Max Horz 2=47(LC 12) Max Uplift 3=-26(LC 12), 2=-33(LC 8), 4=-2(LC 12)

Max Grav 3=63(LC 1), 2=205(LC 1), 4=42(LC 3)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4. 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 2-0-0 oc purlins.

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





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

TOP CHORD BOT CHORD

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

REACTIONS. 1=0-3-8, 2=Mechanical, 3=Mechanical (size) Max Horz 1=34(LC 12) Max Uplift 1=-9(LC 12), 2=-26(LC 12), 3=-5(LC 12)

Max Grav 1=109(LC 1), 2=66(LC 1), 3=48(LC 3)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2, 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.











	2-0-0	)		6-0-0			
Plate Offsets (X Y)	[2:1-5-15 0-1-8] [2:0-3-3 0-0-4] [3:0-3-(	) 0-0-12]		4-0-0			
LOADING (psf) TCLL 25.0 TCDL 20.0 BCLL 0.0 BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	CSI. TC 0.35 BC 0.29 WB 0.12 Matrix-MP	DEFL. in Vert(LL) -0.02 Vert(CT) -0.04 Horz(CT) 0.00	(loc) l/defl 7-8 >999 7-8 >999 2 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 23 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SP BOT CHORD 2x4 SP WEBS 2x4 SP SLIDER Left 2x	F No.2 F No.2 F No.2 4 SPF No.2 -t 2-2-3		BRACING- TOP CHORD BOT CHORD	Structural wood 2-0-0 oc purlins: Rigid ceiling dire	sheathing dire 3-5. ectly applied or	ectly applied or 6-0-0 r 10-0-0 oc bracing.	oc purlins, except
REACTIONS. (size Max H Max U Max G	<ul> <li>2=0-3-8, 6=Mechanical</li> <li>z 2=41(LC 8)</li> <li>plift 2=-78(LC 4), 6=-77(LC 5)</li> <li>rav 2=425(LC 1), 6=339(LC 1)</li> </ul>						
FORCES.         (lb) - Max.           TOP CHORD         2-3=-           BOT CHORD         2-8=-           WEBS         4-8=-	Comp./Max. Ten All forces 250 (lb) or 518/92, 3-4=-461/86 90/463 91/481, 4-7=-339/97	less except when shown	ι.				
NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-16; V MWFRS (envelope) grip DOL=1.60 3) Provide adequate dr 4) This truss has been 5) Refer to girder(s) for 6) Provide mechanical 7) This truss is designer referenced standard 8) Graphical purlin repr 9) "NAILED" indicates 3 10) Hanger(s) or other 2-0-0 on top chord, the responsibility o 11) In the LOAD CASE	e loads have been considered for this de fult=115mph (3-second gust) Vasd=91m gable end zone; cantilever left and right ainage to prevent water ponding. designed for a 10.0 psf bottom chord liv truss to truss connections. connection (by others) of truss to bearin ed in accordance with the 2018 Internatic ANSI/TPI 1. resentation does not depict the size or th 3-10d (0.148"x3") or 3-12d (0.148"x3.25 connection device(s) shall be provided s and 34 lb down and 12 lb up at 2-0-0 of f others. s(S) section, loads applied to the face of	sign. ph; TCDL=6.0psf; BCDL exposed ; end vertical le e load nonconcurrent with g plate capable of withstronal Residential Code se- ne orientation of the purlir ") toe-nails per NDS guid sufficient to support conco- on bottom chord. The des- the truss are noted as from	=4.2psf; h=25ft; Cat. II; E ft and right exposed; Lun h any other live loads. anding 100 lb uplift at joir ctions R502.11.1 and R8 n along the top and/or bot llines. entrated load(s) 63 lb dov sign/selection of such cor ont (F) or back (B).	xp C; Enclosed; nber DOL=1.60 pl nt(s) 2, 6. 02.10.2 and ttom chord. wn and 68 lb up at nnection device(s)	ate is	STATE OF	MISSOUR WIER
LOAD CASE(S) Stand 1) Dead + Roof Live (b Uniform Loads (plf) Vert: 1-3=-9 Concentrated Loads	dard alanced): Lumber Increase=1.15, Plate 10, 3-5=-90, 6-9=-20 . (lb)	Increase=1.15				PE-200	AL ENGINE

Vert: 1-3=-90, 3-5=-90, 6-9=-20 Concentrated Loads (lb)

Vert: 8=-18(B) 14=-9(B)

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



February 24,2021



shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5, 4.

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.
- 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



 19/2020 BEFORE USE.

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 89 and BCSI Building Component









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

TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 1-10-8 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. 1=0-3-8, 2=Mechanical, 3=Mechanical (size) Max Horz 1=32(LC 12) Max Uplift 1=-8(LC 12), 2=-25(LC 12), 3=-5(LC 12) Max Grav 1=102(LC 1), 2=62(LC 1), 3=45(LC 3)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2, 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.







Plate Offse	ets (X,Y)	[2:0-4-8,0-1-12]										
LOADING TCLL	(psf) 25.0	SPACING- Plate Grip DOL	2-0-0 1.15	CSI. TC	0.24	DEFL. Vert(LL)	in -0.01	(loc) 4-5	l/defl >999	L/d 240	PLATES MT20	<b>GRIP</b> 197/144
TCDL BCLL	20.0 0.0	Lumber DOL Rep Stress Incr	1.15 YES	BC WB	0.13 0.00	Vert(CT) Horz(CT)	-0.02 0.01	4-5 3	>999 n/a	180 n/a		
BCDL	10.0	Code IRC2018/TF	912014	Matrix	k-AS						Weight: 11 lb	FT = 20%

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

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8

Max Horz 5=74(LC 12) Max Uplift 3=-61(LC 12), 5=-45(LC 12)

Max Grav 3=150(LC 1), 4=73(LC 3), 5=313(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-284/170

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.







LOADIN	<b>G</b> (psf)	SPACING- 2-0-0	<b>CSI.</b>	DEFL.         in         (loc)         l/defl         L/d         PLATES         GRIP           Vert(LL)         -0.01         3-4         >999         240         MT20         197/144
TCLL	25.0	Plate Grip DOL 1.15	TC 0.21	
TCDL	20.0	Lumber DOL 1.15	BC 0.12	Vert(CT) -0.01 3-4 >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-R	Weight: 12 lb FT = 20%

2x4 SPF No 2 TOP CHORD BOT CHORD WEBS

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

BRACING-TOP CHORD

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

REACTIONS. 4=0-2-0, 3=Mechanical (size) Max Horz 4=83(LC 9)

Max Uplift 4=-27(LC 12), 3=-46(LC 12) Max Grav 4=197(LC 1), 3=197(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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 3-8-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 3.
- 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.







TOP CHORD2x4 SPF No.2BOT CHORD2x6 SPF No.2WEBS2x4 SPF No.2

BRACING-TOP CHORD

Structural wood sheathing directly applied, except 2-0-0 oc purlins: 3-4. Rigid ceiling directly applied.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical Max Horz 2=77(LC 12) Max Uplift 4=-28(LC 8), 2=-65(LC 12), 5=-31(LC 12) Max Grav 4=87(LC 1), 2=411(LC 1), 5=234(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-0-0, Exterior(2E) 4-0-0 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

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

8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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







			6-0-0	
LOADING (psf) TCLL 25.0 TCDL 20.0 BCLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.44 BC 0.52 WB 0.02	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         0.10         6-7         >709         240           Vert(CT)         -0.17         6-7         >402         180           Horz(CT)         0.04         4         n/a         n/a	PLATES         GRIP           MT20         197/144
BCDL 10.0	Code IRC2018/1PI2014	Matrix-AS	BRACING-	Weight: 18 lb F I = 20%

TOP CHORD

BOT CHORD

## LUMBER-

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

WEBS 2x4 SPF No.2

REACTIONS. 4=Mechanical, 5=Mechanical, 7=0-3-8 (size) Max Horz 7=108(LC 12) Max Uplift 4=-58(LC 12), 5=-27(LC 12), 7=-57(LC 12) Max Grav 4=180(LC 1), 5=131(LC 1), 7=419(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-7=-319/153

#### NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

4) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 7.

- 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.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.





TOP CHORD

BOT CHORD

LUMBER-

2x4 SPF No.2 TOP CHORD 2x4 SPF No.2 \*Except\* BOT CHORD

2-7: 2x6 SPF No.2

REACTIONS. 4=Mechanical, 2=0-3-8, 5=Mechanical (size) Max Horz 2=78(LC 12) Max Uplift 4=-33(LC 12), 2=-43(LC 12), 5=-23(LC 12)

Max Grav 4=101(LC 1), 2=299(LC 1), 5=102(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=25ft; Cat. II; Exp C; Enclosed;

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

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

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 3-10-15 oc purlins.

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





LOADIN	G (psf)	<b>SPACING-</b> 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.09	Vert(LL) -0.00 5 >999 240 MT20 197/144
TCDL	20.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00 5 >999 180
BCLL	0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00 3 n/a n/a
BCDL	10.0	Code IRC2018/TPI2014	Matrix-MR	Weight: 6 lb FT = 20%

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

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8 Max Horz 5=39(LC 12)

Max Uplift 3=-27(LC 12), 5=-38(LC 8)

Max Grav 3=57(LC 1), 4=31(LC 3), 5=215(LC 1)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.

6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPL1.







Plate Offs	sets (X,Y)	[2:0-2-1,0-3-10], [3:0-4-0,0-4-15										
	G (psf)	SPACING- 2-0-0	CSI.	0.45	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL 1.15		0.45	Vert(LL)	0.08	5-6	>864	240	M120	197/144	
TCDL	20.0	Lumber DOL 1.15	BC	0.50	Vert(CT)	-0.15	5-6	>474	180			
BCLL	0.0	Rep Stress Incr YES	WB	0.00	Horz(CT)	0.06	5	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014	Matr	ix-AS						Weight: 17 lb	FT = 20%	

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

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 8=0-3-8 Max Horz 8=108(LC 12)

Max Uplift 4=-73(LC 12), 5=-12(LC 12), 8=-57(LC 12)

Max Grav 4=206(LC 1), 5=111(LC 3), 8=419(LC 1)

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

TOP CHORD 2-8=-397/182, 2-3=-351/74

BOT CHORD 7-8=-181/253

#### NOTES-

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 8.
- 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.







	<b>e</b> (e i, i )	[		
	i (psf)	SPACING- 2-0-0 Plate Grip DOI 115	<b>CSI</b> .	DEFL.         in (loc)         l/defl         L/d         PLATES         GRIP           Vert(L)         0.09         6.7         >747         240         MT20         197/144
TCDL	20.0	Lumber DOL 1.15	BC 0.44	Vert(CT) -0.16 6-7 >427 180
BCLL BCDL	0.0 10.0	Code IRC2018/TPI2014	WB 0.02 Matrix-AS	Horz(C1) 0.04 4 n/a n/a Weight: 17 lb FT = 20%

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

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 7=0-3-8

Max Horz 7=107(LC 12) Max Uplift 4=-49(LC 12), 5=-36(LC 12), 7=-56(LC 12)

Max Grav 4=174(LC 1), 5=136(LC 1), 7=419(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-7=-337/164

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 7. 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.







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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 6=0-3-8

Max Horz 6=92(LC 12) Max Uplift 3=-50(LC 12), 4=-37(LC 12), 6=-31(LC 12) Max Grav 3=179(LC 1), 4=140(LC 1), 6=319(LC 1)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4, 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.







Plate Offsets (X,Y)	[2:0-2-2,0-3-8]		1	
LOADING(psf)TCLL25.0TCDL20.0BCLL0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	<b>CSI.</b> TC 0.24 BC 0.13 WB 0.00	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         -0.01         4-5         >999         240           Vert(CT)         -0.02         4-5         >999         180           Horz(CT)         0.01         3         n/a         n/a	PLATES         GRIP           MT20         197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MR		Weight: 11 lb FT = 20%
LUMBER- TOP CHORD 2x4	SPF No.2		BRACING- TOP CHORD Structural wood sheathing dire	ctly applied or 3-10-15 oc purlins,

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 TOP CHORD
 Structural wood sheathing directly applied or 3-1 except end verticals.

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8

Max Horz 5=72(LC 12) Max Uplift 3=-60(LC 12), 5=-43(LC 12)

Max Grav 3=145(LC 1), 4=72(LC 3), 5=308(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-280/168

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.

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







LOADING TCLL	(psf) 25.0	SPACING- Plate Grip DOL	2-0-0 1.15	CSI. TC BC	0.09	DEFL. Vert(LL)	in -0.00	(loc) 5	l/defl >999	L/d 240	PLATES MT20	<b>GRIP</b> 197/144	
BCLL BCDL	0.0 10.0	Rep Stress Incr Code IRC2018/TPI2	YES 2014	WB Matri	0.00 0.00 x-MR	Horz(CT)	-0.00	3	>999 n/a	n/a	Weight: 6 lb	FT = 20%	

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

BRACING-TOP CHORD

BOT CHORD Rig

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8 Max Horz 5=39(LC 12)

Max Uplift 3=-28(LC 12), 5=-37(LC 8) Max Grav 3=57(LC 1), 4=31(LC 3), 5=215(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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPL1.







- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=139, 15=139, 16=133, 12=137, 11=140, 10=133,
- 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.







February 24,2021





- Gable requires continuous bottom chord bearing.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=139, 15=139, 16=133, 12=137, 11=140, 10=133.
- 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.







H			27-8-12 27-8-12		
Plate Offsets (X,Y)	[4:0-2-9,Edge], [12:0-2-9,Edge], [22:0-2	-8,0-3-0]			
LOADING         (psf)           TCLL         25.0           TCDL         20.0           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	<b>CSI.</b> TC 0.07 BC 0.03 WB 0.12 Matrix-S	DEFL. ii Vert(LL) n/z Vert(CT) n/z Horz(CT) 0.07	n (loc) l/defl L/d a - n/a 999 a - n/a 999 1 15 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 140 lb         FT = 20%
LUMBER- TOP CHORD 2x4 S BOT CHORD 2x4 S OTHERS 2x4 S	PF No.2 PF No.2 PF No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing di 2-0-0 oc purlins (6-0-0 max.) Rigid ceiling directly applied	rectly applied or 6-0-0 oc purlins, except : 4-12. or 10-0-0 oc bracing.

**REACTIONS.** All bearings 27-8-12.

(lb) - Max Horz 1=-162(LC 8)

 Max Uplift
 All uplift 100 lb or less at joint(s) 1, 15, 22, 23, 24, 25, 26, 21, 20, 19 except 27=-149(LC 12), 28=-132(LC 12), 17=-149(LC 13), 16=-132(LC 13)

 Max Grav
 All reactions 250 lb or less at joint(s) 1, 15, 22, 23, 24, 25, 26, 28, 21, 20, 19, 18, 16 except

27=263(LC 19), 17=262(LC 20)

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

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 5-10-11, Exterior(2R) 5-10-11 to 9-10-6, Interior(1) 9-10-6 to 21-10-1, Exterior(2R) 21-10-1 to 25-10-6, Interior(1) 25-10-6 to 27-4-12 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) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 22, 23, 24, 25, 26, 21, 20, 19 except (jt=lb) 27=149, 28=132, 17=149, 16=132.

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

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







#### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 3-10-6, Exterior(2R) 3-10-6 to 6-10-6, Interior(1) 6-10-6 to 7-4-12 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) 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=153, 6=153.

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.













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





