



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

## Re: 2684039 ROESER/ROANOKE LOT 1475/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: I45972534 thru I45972649

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

Missouri COA: Engineering 001193



May 6,2021

**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 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.



4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 14 and 138 lb uplift at joint 8.

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.



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



16023 Swingley Ridge Rd Chesterfield, MO 63017



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 144 lb uplift at joint 8 and 144 lb uplift at joint 6.

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

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.









May 6,2021

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 system. See MSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



\_\_\_\_





 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.









E

May 6,2021



	5-2-7 5-4-3 9-10-5 5-2-7 0-1-12 4-6-2	<u>14-4-7</u> <u>17-2-7</u> <u>4-6-2</u> <u>2-10-0</u>	21-8-0 2	23-8-7 27-2-	7 30-8-7	<u>32-10-15</u> 35-	<u>2-7</u>
Plate Offsets (X,Y)	[6:0-3-14,Edge], [7:0-1-8,0-1-8], [10:0-4	-0,0-3-4], [11:0-3-12,0-6-1	3], [12:Edge,0-7-9], [17:	0-5-12,0-4-12], [1	18:Edge,0-3-8], [	19:0-3-8,0-3-0]	-0
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	CSI. TC 0.71 BC 0.75 WB 0.79 Matrix-MS	DEFL. in Vert(LL) -0.38 Vert(CT) -0.68 Horz(CT) 0.14	i (loc) l/defl 18 >951 18 >527 12 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 381 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SI 10-13: BOT CHORD 2x6 SI 8-18: 2 WEBS 2x4 SI SLIDER Right	PF No.2 *Except* . 2x8 SP 2400F 2.0E PF No.2 *Except* 2x4 SPF No.2, 11-17: 2x6 SPF 2100F 1. PF No.2 2x4 SPF No.2 -t 2-0-1	3E	BRACING- TOP CHORD BOT CHORD	Structural wood except end vert Rigid ceiling dir 6-0-0 oc bracing	I sheathing direc icals, and 2-0-0 ectly applied or 7 g: 22-24.	tly applied or 4-11-6 oc purlins (3-3-0 ma: 10-0-0 oc bracing, E	oc purlins, x.): 1-4, 6-10. Except:
REACTIONS. (siz Max H Max U Max C	te) 12=0-3-8, 24=0-3-8 Horz 24=-137(LC 6) Jplift 12=-647(LC 9), 24=-788(LC 4) Grav 12=2252(LC 1), 24=3081(LC 1)						
FORCES. (lb) - Max TOP CHORD 1-2= 6-7= 11-'	. Comp./Max. Ten All forces 250 (lb) oi -161/285, 2-3=-2739/634, 3-4=-4187/99 -5674/1381, 7-8=-9837/2598, 8-9=-1002 12=-1715/514	less except when shown. , 4-5=-4513/1071, 5-6=-6 7/2652, 9-10=-8269/2298,	063/1493, , 10-11=-5824/1676,				
BOT CHORD 22-2	4=-285/241, 21-22=-502/2739, 20-21=-7	98/3874, 19-20=-1643/67	00, 18-19=-254/992,				
WEBS 1-24 4-21 7-19 10-1	1/=-2192/8209, 15-16=-1504/5/37, 11-1 =-349/170, 2-24=-2403/590, 2-22=-779/ =-1993/454, 5-21=-229/1115, 5-20=-932 =-2500/672, 17-19=-1571/6457, 7-17=-1 6=-689/2763	5=-1562/5719, 11-14=-11 3633, 3-22=-1312/323, 3-2 /3522, 6-20=-2546/666, 7 092/4035, 9-17=-384/190	5/458 21=-424/1721, -20=-1273/422, 7, 9-16=-1076/305,				
NOTES-						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m
<ol> <li>2-ply truss to be co Top chords connect Bottom chords connect Bottom chords connect Ply connections have all loads are conside ply connections have all unbalanced roof liv Wind: ASCE 7-16; MWFRS (envelope) grip DOL=1.60</li> <li>Provide adequate of Provide adequate of This truss has been 7) Provide mechanica 12=647, 24=788.</li> <li>This truss is design referenced standard</li> </ol>	nnected together with 10d (0.131"x3") na ted as follows: 2x4 - 1 row at 0-7-0 oc, 2: nected as follows: 2x6 - 2 rows staggered follows: 2x4 - 1 row at 0-9-0 oc. lered equally applied to all plies, except i /e been provided to distribute only loads e loads have been considered for this de Vult=115mph (3-second gust) Vasd=91m ) gable end zone; cantilever left and right trainage to prevent water ponding. I designed for a 10.0 psf bottom chord liv I connection (by others) of truss to bearin ed in accordance with the 2018 Internatio d ANS/TPI 1.	ils as follows: 8 - 2 rows staggered at 0 I at 0-9-0 oc, 2x4 - 1 row a moted as front (F) or back noted as (F) or (B), unless sign. pt; TCDL=6.0psf; BCDL= exposed ; end vertical lef e load nonconcurrent with g plate capable of withsta onal Residential Code sec	-9-0 oc. at 0-9-0 oc. (B) face in the LOAD C otherwise indicated. -4.2psf; h=25ft; Cat. II; E t and right exposed; Lun any other live loads. nding 100 lb uplift at joir tions R502.11.1 and R8	ASE(S) section. xp C; Enclosed; nber DOL=1.60 p nt(s) except (jt=lb 02.10.2 and	Ply to late	The of Scot	MISSOLUT MIR VIER 1018807
Continued cal putie 2ep	presentation does not depict the size or the	e orientation of the purlin	along the top and/or bot	ttom chord.			- ·
WARNING - Verify Design valid for use of a truss system. Befor	design parameters and READ NOTES ON THIS ANI only with MITek® connectors. This design is based re use, the building designer must verify the applical	D INCLUDED MITEK REFERENCE only upon parameters shown, and pility of design parameters and pr	E PAGE MII-7473 rev. 5/19/2020 d is for an individual building co operly incorporate this design in	0 BEFORE USE. omponent, not into the overall			

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 **ADSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO	
2684039	B1	Roof Special Girder	1	2		145972540
				<b>_</b>	Job Reference (optional)	
Builders FirstSource (Valley	Center) Valley Center K	S - 67147	8	430 s Anr	20 2021 MiTek Industries Inc. Wed May 5 08:56:39 2021	Page 2

ID:WV5xOZ45cNK4PQ2HmSu\_xyyPFt9-jVGcnK4EWYax6Uxw2acw30UNSwWnHFjx4wOKMKzJbjc

#### NOTES-

- 10) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent at 8-7-11 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
- 11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 21-9-3 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
- 12) Fill all nail holes where hanger is in contact with lumber.
- 13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 217 lb down and 138 lb up at 30-7-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-4=-70, 4-5=-70, 5-6=-70, 6-10=-70, 10-11=-70, 11-13=-70, 18-25=-20, 11-17=-20, 14-26=-20
- Concentrated Loads (lb)
  - Vert: 10=-37(F) 23=-38(F) 19=-558(F) 15=-217(F) 30=-71(F) 31=-37(F) 32=-37(F) 33=-37(F) 34=-38(F) 35=-38(F) 36=-38(F) 37=-770(F) 38=-32(F) 39=-31(F) 40=-31(F) 41=-31(F)





Scale = 1:65.6



	5-2-7 5-4-4	14-0-8	15-2-8	19-3-8	23-8-0	23-8-8	29-0-0	32-11-0 3	5-2-7 35-2-8
Plate Offsets (X,Y)	[1:0-4-8.0-2-0]. [6:Edge	.0-2-11. [8:0-4-8.0	-8-8]. [15:0-5-12.0-3-4]	4-1-0	4-4-0	0-0-0	5-3-6	2	-3-7 0-0-1
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/	2-0-0 1.15 1.15 YES IPI2014	CSI. TC 0.70 BC 0.74 WB 0.64 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.26 -0.48 0.19	(loc) // 15 > 15 > 11	defl L/d 999 240 750 180 n/a n/a	PLATES MT20 MT20HS Weight: 160 lb	<b>GRIP</b> 197/144 148/108 FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF	PF No.2 PF No.2 PF No.2 PF No.2			BRACING- TOP CHOR BOT CHOR	.D :D	Structural 2-0-0 oc p Rigid ceilii	wood sheathing dir urlins (2-2-15 max.) ng directly applied.	ectly applied, except ): 1-3, 4-6, 6-7, 1-23.	end verticals, and
REACTIONS. (siz Max H Max L Max C	e) 21=0-3-8, 11=0-3-8 Horz 21=-196(LC 8) Jplift 21=-415(LC 8), 11= Grav 21=1842(LC 1), 11=	324(LC 13) =1446(LC 1)							
FORCES.         (lb) - Max.           TOP CHORD         1-2=           6-7=         6-7=           BOT CHORD         19-2           WEBS         1-21           7-15         15-1	. Comp./Max. Ten All fi -315/287, 2-3=-1924/44 -3740/807, 7-8=-2871/59 1=-37/403, 18-19=-414/2 =-412/389, 2-21=-1574/ =-300/1217, 7-14=0/279 8=-496/2613, 5-15=-224	orces 250 (lb) or l 5, 3-4=-2068/462, 39, 8-9=-2776/564 2281, 14-15=-468 429, 2-19=-338/17 , 6-15=-361/145, /1078, 4-18=-160	ess except when shown. 4-5=-2693/608, 5-6=-36 4, 9-11=-1312/301 /2629, 13-14=-565/2866 782, 3-19=-106/455, 4-15 9-13=-479/2439, 5-18=-8 /547	562/792, 5, 11-12=-54/260 9=-1223/331, 849/240,					
NOTES- 1) Unbalanced roof liv 2) Wind: ASCE 7-16; MWFRS (envelope) , Interior(1) 15-2-8 ti vertical left and righ 3) Provide adequate d 4) All plates are MT20 5) This truss has been 6) Provide mechanical 21=415, 11=324. 7) This truss is design referenced standard 8) This truss design re sheetrock be applie	e loads have been consi Vult=115mph (3-second ) gable end zone and C-( o 29-0-0, Exterior(2R) 22 t exposed;C-C for memb Irainage to prevent water plates unless otherwise designed for a 10.0 psf I connection (by others) of ed in accordance with th d ANSI/TPI 1. equires that a minimum of d directly to the bottom c	dered for this des gust) Vasd=91mp C Exterior(2E) 0-1 9-0-0 to 32-0-0, to 32-0-0, indicated. bottom chord live of truss to bearing e 2018 Internation f 7/16" structural of chord.	ign. h; TCDL=6.0psf; BCDL= -12 to 3-1-12, Interior(1) terior(1) 32-0-0 to 37-1-{ MWFRS for reactions sh load nonconcurrent with plate capable of withsta hal Residential Code sec wood sheathing be appli	=4.2psf; h=25ft; Ca 3-1-12 to 14-0-8, 8 zone; cantilever hown; Lumber DO h any other live loa anding 100 lb uplift ctions R502.11.1 a ed directly to the t	it. II; E) Exteric left and L=1.60 ds. at join nd R8( op cho	xp C; Enclo or(2E) 14-0- I right expo plate grip I t(s) except 02.10.2 and rd and 1/2"	sed; 8 to 15-2-8 sed ; end DOL=1.60 (jt=lb) gypsum	STATE OF STATE OF SE	MISSOLIE VIER



May 6,2021



Scale = 1:68.1





LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.66 BC 0.96 WB 0.60 Matrix-AS	DEFL. in Vert(LL) -0.37 Vert(CT) -0.67 Horz(CT) 0.25	(loc) l/defi L/d 20 >974 240 19-20 >534 180 16 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 173 lb         FT = 20%
LUMBER- TOP CHORD 2x4 SI BOT CHORD 2x4 SI 18-20: WEBS 2x4 SI	PF No.2 PF No.2 *Except* 2x4 SPF 1650F 1.5E PF No.2		BRACING- TOP CHORD BOT CHORD WEBS JOINTS	Structural wood sheathing dir 2-0-0 oc purlins (2-7-0 max.): Rigid ceiling directly applied. 1 Row at midpt 6 1 Brace at Jt(s): 28, 29	ectly applied, except end verticals, and 2-3, 4-6, 7-9, 11-12. -25, 11-19

REACTIONS. (size) 16=0-3-8, 25=0-3-8 Max Horz 25=-187(LC 10) Max Uplift 16=-330(LC 13), 25=-367(LC 8) Max Grav 16=1467(LC 26), 25=1842(LC 1)

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

 TOP CHORD
 6-7=-1745/392, 7-8=-1680/368, 8-9=-2234/522, 9-10=-3824/836, 10-11=-4031/834, 11-12=-2974/627, 12-13=-3244/654, 13-14=-2799/576, 14-16=-1336/314

 BOT CHORD
 23-25=-200/1381, 22-23=-362/2137, 19-20=-1065/5308, 18-19=-539/2758, 16-17=-44/265

 WEBS
 6-25=-1795/346, 7-23=-655/192, 8-23=-693/219, 9-22=-861/204, 20-22=-322/2260, 9-20=-489/2382, 11-20=-2063/515, 11-19=-2425/542, 12-19=-89/765, 13-19=-69/310, 6-23=-284/1326, 14-18=-480/2443, 25-29=-490/211, 5-29=-490/199, 1-27=-225/308, 27-28=-259/314, 25-28=-255/314

#### 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) 0-1-12 to 3-1-8, Interior(1) 3-1-8 to 4-3-0, Exterior(2R) 4-3-0 to 7-3-0, Interior(1) 7-3-0 to 12-0-8, Exterior(2E) 12-0-8 to 13-2-8, Interior(1) 13-2-8 to 21-4-8, Exterior(2R) 21-4-8 to 24-4-8, Interior(1) 24-4-8 to 31-0-0, Exterior(2R) 31-0-0 to 34-0-0, Interior(1) 34-0-0 to 37-1-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) 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) 16=330, 25=367.

- 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.







Scale = 1:66.9



. 2	-7-15 3-3-8 5-2-7 6-3-7 9-11-15 1	1-1-15 15-2-15	19-3-15	3-6-3 . 27-8-7 .	33-0-7 . 3	5-2-7
2	-7-15 0-7-91-11-0 1-1-0 3-8-8	1-2-0 4-1-0	4-1-0	4-2-4 4-2-4	5-4-0	2-2-0
Plate Offsets (X,Y)	[9:0-3-14,Edge], [11:0-2-9,0-3-0]					
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	CSI. TC 0.60 BC 0.96 WB 0.66 Matrix-MS	DEFL. Vert(LL) -0 Vert(CT) -0 Horz(CT) 0	in (loc) I/defl L/d 24 15 >999 240 54 14-15 >656 180 .11 13 n/a n/a	PLATES MT20 Weight: 167 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER-           TOP CHORD         2x4 SP           BOT CHORD         2x4 SP           13-16:         2x4 SP	PF No.2 PF No.2 *Except* 2x4 SPF 1650F 1.5E PF No.2		BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheathing except end verticals, and 2 9-10. Rigid ceiling directly applie 1 Row at midpt	directly applied or 3-2-5 2-0-0 oc purlins (4-1-7 m d or 6-0-0 oc bracing. 9-14, 4-20	oc purlins, ax.): 3-4, 5-7,
REACTIONS. (size Max H Max U Max G	e) 13=0-3-8, 20=0-3-8 lorz 20=-140(LC 9) lplift 13=-357(LC 9), 20=-294(LC 4) irav 13=1418(LC 22), 20=1837(LC 1)					
FORCES.         (lb) - Max.           TOP CHORD         2-3=- 8-9=-           BOT CHORD         19-20           WEBS         5-19- 8-15= 4-19=	Comp./Max. Ten All forces 250 (lb) o 46/277, 4-5=-1186/308, 5-6=-1116/277 2926/646, 9-10=-1381/319, 10-11=-152 0=-59/855, 17-19=-248/1640, 15-17=-56 -558/178, 6-19=-855/254, 6-17=-67/37 117/725, 9-15=-1594/471, 10-14=-49 311/1372, 4-20=-1463/295, 3-20=-316	r less except when shown. , 6-7=-1864/481, 7-8=-208 28/328, 11-13=-1480/329 01/2638, 14-15=-938/4115 8, 7-17=-84/520, 8-17=-10 363, 11-14=-321/1669, 9-1 5/91, 2-20=-361/132	2/497, 09/276, 4=-2888/707,			
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) Provide mechanical 13=357, 20=294.	e loads have been considered for this d /ult=115mph (3-second gust) Vasd=91r gable end zone; cantilever left and righ rainage to prevent water ponding. designed for a 10.0 psf bottom chord lin connection (by others) of truss to beari	esign. nph; TCDL=6.0psf; BCDL= t exposed ; end vertical lef ve load nonconcurrent with ng plate capable of withsta	4.2psf; h=25ft; Cat. I t and right exposed; I any other live loads. nding 100 lb uplift at	; Exp C; Enclosed; Lumber DOL=1.60 plate joint(s) except (jt=lb)	STE OF	MISSOL

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

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-70, 3-4=-70, 4-5=-70, 5-7=-70, 7-9=-70, 9-10=-70, 10-11=-70, 11-12=-70, 13-21=-20, 22-23=-20 Concentrated Loads (lb)

Vert: 10=42(B) 14=15(B) 25=-4(B)







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.



May 6,2021









May 6,2021









# May 6,2021











May 6,2021









May 6,2021





4) 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.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=145, 7=191

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.



MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



LOADING (psf)         SPACING-         2-0-0         CSI.         DEFL.         in         (loc)         l/defl         L/d         PLATES         GRIP           TCLL         25.0         Plate Grip DOL         1.15         TC         0.29         Vert(LL)         -0.11         10-12         >999         240         MT20         197/144           TCDL         10.0         Lumber DOL         1.15         BC         0.46         Vert(CT)         -0.23         10-12         >865         180           BCLL         0.0         Rep Stress Incr         YES         WB         0.43         Horz(CT)         0.02         8         n/a         n/a		7-1-0 7-1-0	7-7-0 8-4-14 0-6-0 0-9-14	11-9-0 3-4-2	13-9-0 2-0-0	17-1-0 3-4-0	-
BOLL 0.0 Rep stress incidities Wile 0.43 Hol2(CT) 0.02 8 IV/a IV/a	LOADING (psf) TCLL 25.0 TCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Data States JACE	CSI. TC 0.29 BC 0.46	<b>DEFL.</b> in ( Vert(LL) -0.11 10 Vert(CT) -0.23 10	loc) l/defl L )-12 >999 24 )-12 >865 11	/d <b>PLATES</b> 40 MT20 80	<b>GRIP</b> 197/144
BCDL 10.0 Code IRC2018/TPI2014 Matrix-AS Veignt: 77 lb FT = 20	BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	H012(C1) 0.02	o n/a n	Weight: 77 lb	FT = 20%

TOP CHORD

BOT CHORD

9

3x8 =

10

3x4 =

## LUMBER-

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

12<sup>3x8</sup> =

REACTIONS. 12=Mechanical, 8=0-3-8 (size) Max Horz 12=-173(LC 8) Max Uplift 12=-156(LC 8), 8=-180(LC 9) Max Grav 12=747(LC 1), 8=909(LC 1)

11

3x6 =

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

2-3=-887/297, 3-4=-1318/411, 4-5=-1224/358, 6-8=-305/186 TOP CHORD

BOT CHORD 10-12=-104/634, 9-10=-145/890, 8-9=-164/823

WEBS 4-9=-690/248, 5-9=-141/572, 5-8=-956/298, 2-10=-93/340, 3-9=-200/437, 2-12 = -811/310

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-4-14, Exterior(2R) 8-4-14 to 11-4-14, Interior(1) 11-4-14 to 13-9-0, Exterior(2R) 13-9-0 to 16-11-4, Interior(1) 16-11-4 to 19-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Provide adequate drainage to prevent water ponding.

3) 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.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=156, 8=180.

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.



8

3x6 \_

Structural wood sheathing directly applied, except end verticals, and

2-0-0 oc purlins (5-3-12 max.): 1-3, 4-5.

Rigid ceiling directly applied.





L	5-1-0	7-7-0	9-5-0	13-9-0	15-9-0	17-1-0	
I	5-1-0	2-6-0	1-10-0	4-4-0	2-0-0	1-4-0	
Plate Offsets (X,Y)	[4:0-3-14,Edge]						
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNOCode IRC2018/TPI2014	<b>CSI.</b> TC 0.69 BC 0.58 WB 0.57 Matrix-MS	DEFL. Vert(LL) Vert(CT Horz(C1	in (loc) l/defl -0.08 10-12 >999 -0.16 10-12 >999 ) 0.03 8 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 73 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER-           TOP CHORD         2x4 SPF No.2           BOT CHORD         2x4 SPF No.2           WEBS         2x4 SPF No.2				G- ORD Structural wood except end vert ORD Rigid ceiling dir	I sheathing directl icals, and 2-0-0 o ectly applied or 1	ly applied or 4-5-4 ic purlins (4-10-12 0-0-0 oc bracing.	oc purlins, 2 max.): 1-2, 4-5.

REACTIONS. (size) 12=Mechanical, 8=0-3-8 Max Horz 12=-133(LC 34) Max Uplift 12=-133(LC 8), 8=-188(LC 9)

Max Grav 12=743(LC 1), 8=865(LC 1)

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

2-3=-923/168, 3-4=-967/140, 4-5=-1343/254, 6-8=-278/121 TOP CHORD

BOT CHORD 10-12=-82/900, 9-10=-237/1404, 8-9=-51/457

WFBS 4-9=-578/166, 5-8=-740/94, 5-9=-208/1097, 3-10=-20/398, 4-10=-609/214, 2-12=-993/178

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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.

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=133, 8=188.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 10) 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: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 6-7=-70, 8-12=-20 Concentrated Loads (lb)

Vert: 5=49(B) 14=-2(B)







- MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-0, Interior(1) 3-1-0 to 7-7-0, Exterior(2R) 7-7-0 to 10-7-0, Interior(1) 10-7-0 to 17-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.

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

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=116, 6=160.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.







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.



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/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601 **a** a





Continued on page 2	
MARNING - Verify design paran	h

Mitek<sup>®</sup> 16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO	
					1459	972557
2684039	B18	Roof Special Girder	1	2		
				<b>_</b>	Job Reference (optional)	
Builders First Source, Valley Cen	ter, KS 67147			8	.430 s Nov 18 2020 MiTek Industries, Inc. Wed May 5 13:47:30 2021 Page	ge 2

8.430 s Nov 18 2020 MiTek Industries, Inc. Wed May 5 13:47:30 2021 Page 2 ID:WV5xOZ45cNK4PQ2HmSu\_xyyPFt9-uFsB8rYGmtvH1QRCmPsDtKmj5XWJax8awSBGMKzJXSx

#### LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-70, 3-5=-70, 5-6=-70, 12-13=-20, 9-11=-20, 7-8=-20

Concentrated Loads (lb)

Vert: 9=-271(B) 10=-284(B) 12=-271(B) 14=-284(B) 15=-284(B) 16=-284(B) 17=-284(B)





Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO	
						145972558
2684039	C1	Roof Special Girder	1	2		
				~	Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.	430 s Apr	20 2021 MiTek Industries, Inc. Wed May 5 08:57:05 2021	Page 2
		ID:WV5xOZ4	45cNK4PC	2HmSu x	yyPFt9-yVgREDOYOXrFEUwwa2416VZwPPTJN75m3zhił	HpzJbjC

#### NOTES-

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 41 lb down at 33-5-12, and 218 lb down and 152 lb up at 33-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

## LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-4=-70, 4-5=-70, 5-6=-70, 6-11=-70, 11-12=-70, 12-13=-70, 14-22=-20

Concentrated Loads (lb)

Vert: 19=-10(B) 18=-10(B) 23=-401(B) 24=-267(B) 25=-275(B) 26=-275(B) 27=-267(B) 28=-267(B) 29=-263(B) 30=-10(B) 31=-10(B) 32=-10(B) 33=-10(B) 34=-10(B) 35=-10(B) 35=





	9-8-12		19-2-0					26-5-8	
Plate Offsets (X,Y)	- [3:0-2-0,Edge], [6:0-3-0,0-1-12], [8:Edge	e,0-1-8]	9-0-4					7-3-0	
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.53 BC 0.84 WB 0.60 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.19 -0.40 0.06	(loc) 11-12 11-12 8	l/defl >999 >787 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 107 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 BOT CHORD 2x4 WEBS 2x4 REACTIONS. Ma Ma Ma	SPF No.2 SPF No.2 SPF No.2 size) 12=0-3-8, 8=0-5-8 x Horz 12=-177(LC 8) x Uplift 12=-265(LC 8), 8=-261(LC 9) x Grav 12=1172(LC 1), 8=1328(LC 1)		BRACING- TOP CHOR BOT CHOR WEBS	D	Structu 2-0-0 o Rigid c 1 Row	ural wood oc purlins eiling dire at midpt	sheathing d (3-10-14 ma ectly applied	irectly applied, except e ix.): 1-5. 2-12	and verticals, and
FORCES.(lb) - MTOP CHORD2BOT CHORD1WEBS26	ax. Comp./Max. Ten All forces 250 (lb) or 4=-1893/409, 4-5=-1644/349, 5-6=-1876/34 1-12=-293/1553, 9-11=-388/2063, 8-9=-102 12=-1730/430, 2-11=-27/545, 4-11=-267/14 9=-223/1353	less except when shown. 49, 6-8=-1260/315 /299 42, 4-9=-602/170, 5-9=0/348,							
NOTES-	live loads have been considered for this da	-i							

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 19-2-0, Exterior(2R) 19-2-0 to 23-4-15, Interior(1) 23-4-15 to 28-4-8 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) 12=265, 8=261.

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.



16023 Swingley Ridge Rd Chesterfield, MO 63017



<b> </b>	<u>8-8-12</u> 8-8-12	17	-2-0 5-4		<u>26-5</u> 9-3-	-8	
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.40 BC 0.66 WB 0.82 Matrix-AS	DEFL. ir Vert(LL) -0.14 Vert(CT) -0.30 Horz(CT) 0.06	n (loc) l/de 9-10 >99 9-10 >99 9 n.	fl L/d 9 240 9 180 /a n/a	PLATES MT20 Weight: 114 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF REACTIONS. (siz Max H Max U Max G	PF No.2 PF No.2 PF No.2 PF No.2 e) 13=0-3-8, 9=0-5-8 lorz 13=-214(LC 10) lplift 13=-262(LC 8), 9=-244(LC 9) grav 13=1172(LC 1), 9=1328(LC 1)		BRACING- TOP CHORD BOT CHORD WEBS	Structural w 2-0-0 oc pur Rigid ceiling 1 Row at mi	bod sheathing dir lins (4-4-9 max.): directly applied. dpt 2:	ectly applied, except e 1-5. -13	end verticals, and
FORCES.         (lb) - Max.           TOP CHORD         2-4=-           BOT CHORD         12-13           WEBS         2-13:           6-9=-	Comp./Max. Ten All forces 250 (lb) o .1472/331, 4-5=-1529/322, 5-6=-1712/3 3=-181/1174, 10-12=-269/1661, 9-10=-2 =-1456/356, 2-12=-49/571, 4-12=-363/1 -1607/328	less except when shown 28, 6-7=-288/45, 7-9=-393 21/1525 42, 4-10=-298/99, 5-10=-4	3/160 4/333,				
NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-16; V MWFRS (envelope) 21-4-15, Interior(1) 2 and forces & MWFR 3) Provide adequate di 4) This truss has been 5) Provide mechanical	e loads have been considered for this de /ult=115mph (3-second gust) Vasd=91n gable end zone and C-C Exterior(2E) 0 21-4-15 to 28-4-8 zone; cantilever left ar (S for reactions shown; Lumber DOL=1. rainage to prevent water ponding. designed for a 10.0 psf bottom chord liv connection (by others) of truss to bearin	esign. hph; TCDL=6.0psf; BCDL= 1-12 to 3-1-12, Interior(1) hd right exposed ; end ver 60 plate grip DOL=1.60 re load nonconcurrent with hg plate capable of withsta	=4.2psf; h=25ft; Cat. II; E ) 3-1-12 to 17-2-0, Exteri tical left and right expose n any other live loads. anding 100 lb uplift at ioir	ixp C; Enclose or(2R) 17-2-0 ed;C-C for me nt(s) except (it	ed; to mbers = b)		

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=262, 9=244.

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.



16023 Swingley Ridge Rd Chesterfield, MO 63017



L		7-8-12	15-2-0		20-8-0		26-5-8				
		7-8-12	7-5-4	I	5-6-0	I	5-9-8	1			
Plate Offsets (X,Y) [7:Edge,0-1-8]											
LOADING TCLL TCDL BCLL	(psf) 25.0 10.0 0.0	SPACING- Plate Grip DOL2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYES	CSI. TC 0.77 BC 0.55 WB 0.49	DEFL. Vert(LL) -0 Vert(CT) -0 Horz(CT) 0	in (loc) l/c .08 11-12 >9 .17 9-11 >9 .03 7	defl L/d 999 240 999 180 n/a n/a	PLATES MT20	<b>GRIP</b> 197/144			
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS				Weight: 119 lb	FT = 20%			
LUMBER-       BRACING-         TOP CHORD       2x4 SPF No.2       TOP CHORD       Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-1-3 max.): 1-3.         WEBS       2x4 SPF No.2       BOT CHORD       Rigid ceiling directly applied.         WEBS       1 2e0-3-8, 7=0-5-8       Max Horz       12=-250(LC 8)         Max Horz       12=-250(LC 8)       Max Grav       12=1172(LC 1), 7=1328(LC 1)											
FORCES.       (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       1-12=-1100/281, 1-2=-1249/309, 2-3=-1251/310, 3-4=-1586/309, 4-5=-1823/276,         57 - 1282/208       57 - 1282/208											
BOT CHOR WEBS	BOT CHORD       11-12=-143/254, 9-11=-154/1399, 8-9=-185/1608         WEBS       1-11=-325/1488, 2-11=-605/251, 3-9=-28/342, 5-8=-208/1471										
NOTES- 1) Unbaland 2) Wind: AS MWFRS 19-4-15, and force 3) Provide a 4) This trus	ced roof live SCE 7-16; V (envelope) Interior(1) 1 es & MWFR adequate dr s has been	e loads have been considered for t 'ult=115mph (3-second gust) Vaso gable end zone and C-C Exterior( 9-4-15 to 28-4-8 zone; cantilever S for reactions shown; Lumber DC ainage to prevent water ponding. designed for a 10.0 osf bottom ch	his design. =91mph; TCDL=6.0psf; BCDL= 2E) 0-1-12 to 3-1-12, Interior(1) left and right exposed ; end ver DL=1.60 plate grip DOL=1.60 prd live load nonconcurrent with	=4.2psf; h=25ft; Cat. I ) 3-1-12 to 15-2-0, Ex tical left and right exp n any other live loads.	I; Exp C; Enclos terior(2R) 15-2- osed;C-C for m	sed; 0 to embers					

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=258, 7=229.

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.



16023 Swingley Ridge Rd Chesterfield, MO 63017



F	7-0-8	13-2-0 6-1-8	<u>19-8-0</u> 6-6-0	<u> </u>				
Plate Offsets (X,Y)	[6:0-2-0,Edge], [7:0-2-4,0-2-0], [	9:Edge,0-1-8]						
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.50 BC 0.44 WB 0.84 Matrix-AS	DEFL.         in         (loc)         l/defl           Vert(LL)         -0.07         10-11         >999           Vert(CT)         -0.15         10-11         >999           Horz(CT)         0.03         9         n/a	L/d PLATES 240 MT20 180 n/a Weight: 131 lb	<b>GRIP</b> 197/144 FT = 20%			
LUMBER- TOP CHORD 2x4 BOT CHORD 2x4 WEBS 2x4	SPF No.2 SPF No.2 SPF No.2		BRACING- TOP CHORD Structural wood 2-0-0 oc purlins BOT CHORD Rigid ceiling dire	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-10-6 max.): 2-4. Rigid ceiling directly applied.				
REACTIONS. (s Max Max	size) 14=0-3-8, 9=0-5-8 : Horz 14=-278(LC 8) : Uplift 14=-243(LC 8), 9=-285(LC <sup>2</sup>	3)						

Max Grav 14=1172(LC 1), 9=1328(LC 1)

- TOP CHORD 2-3=-1001/259, 3-4=-1246/345, 4-5=-1436/332, 5-7=-1860/378, 7-9=-1257/310
- BOT CHORD 11-13=-79/999, 10-11=-263/1633
- WEBS 3-13=-732/240, 3-11=-131/348, 5-11=-448/180, 7-10=-211/1426, 2-14=-1191/391, 2-13=-242/1212

#### 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) 0-11-12 to 0-11-0, Exterior(2R) 0-11-0 to 5-1-15, Interior(1) 5-1-15 to 13-2-0 , Exterior(2R) 13-2-0 to 17-4-15, Interior(1) 17-4-15 to 28-4-8 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) 14=243, 9=285.
- 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.



16023 Swingley Ridge Rd Chesterfield, MO 63017



- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=190, 8=278.
- 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.







1	0-11-0	10-7-0	10-4-0	20-0-0	
Γ	6-11-0		7-9-8	8-1-0	1
Plate Offsets (X,Y)	[7:0-3-0,0-1-12], [9:Edge,0-1-8]				
LOADING (psf)	SPACING- 2-0-	) CSI.	DEFL. in (loc)	l/defl L/d PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.1	5 TC 0.	.58 Vert(LL) -0.09 10-12	>999 240 MT20	197/144

TCDL 10 BCLL 0 BCDL 10	).0 ).0 ).0	Lumber DOL Rep Stress Incr Code IRC2018/TP	1.15 YES 12014	BC WB Matrix	0.58 0.48 -AS	Vert(CT) Horz(CT)	-0.20 1 0.04	0-12 : 9	>999 n/a	180 n/a	Weight: 140 lb	FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS	2x4 SP 2x4 SP 2x4 SP	F No.2 F No.2 F No.2				BRACING- TOP CHOR	D S	Structura 2-0-0 oc Sigid ceil	I wood : purlins ( ling dire	sheathing d (6-0-0 max.	lirectly applied, except er ): 3-4.	nd verticals, and
WEBO	274 01	1 110.2				WEBS	1	Row at	midpt	ony applied	4-13. 5-12. 2-14	

REACTIONS. (size) 14=0-3-8, 9=0-5-8 Max Horz 14=-252(LC 8) Max Uplift 14=-199(LC 13), 9=-282(LC 13) Max Grav 14=1172(LC 1), 9=1328(LC 1)

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

2-3=-809/297, 3-4=-785/283, 4-5=-1226/312, 5-7=-1870/375, 7-9=-1248/347 TOP CHORD

BOT CHORD 13-14=0/671, 12-13=-61/1022, 10-12=-247/1629, 9-10=-88/326

2-13=-232/971, 3-13=-372/124, 4-13=-548/167, 4-12=-74/450, 5-12=-693/247, WFBS 2-14=-1115/256, 7-10=-206/1311

#### 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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-9-8, Exterior(2E) 5-9-8 to 6-11-0, Interior(1) 6-11-0 to 10-7-0, Exterior(2R) 10-7-0 to 13-7-0, Interior(1) 13-7-0 to 28-4-8 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) 14=199, 9=282.

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.



MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



16023 Swingley Ridge Rd Chesterfield, MO 63017
Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO	
				-		145972565
2684039	C8	Roof Special Girder	1	ົ		
				2	Job Reference (optional)	
Builders FirstSource (Valley	Center). Valley Center, K	S - 67147.	8.	430 s Apr	20 2021 MiTek Industries, Inc. Wed May 5 08:57:14 2021	Page 2

ID:WV5xOZ45cNK4PQ2HmSu\_xyyPFt9-BEtr7IVCHI\_zpt6fcRl8\_PRMN1OX\_3857sNh6ozJbj3

NOTES-

12) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent at 11-4-12 from the left end to connect truss(es) to front face of bottom chord,

- skewed 0.0 deg.to the left, sloping 0.0 deg. down.
- 13) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 13-4-12 from the left end to 21-4-12 to connect truss(es) to front face of bottom chord.
- 14) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent at 23-4-12 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0
- deg.to the left, sloping 0.0 deg. down. 15) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent at 25-4-12 from the left end to connect truss(es) to front face of bottom chord,
- skewed 0.0 deg.to the left, sloping 0.0 deg. down. 16) Fill all nail holes where hanger is in contact with lumber.

# LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-8=-70, 9-15=-20

Concentrated Loads (lb)

Vert: 12=-727(F) 10=-723(F) 16=-736(F) 17=-727(F) 18=-727(F) 19=-727(F) 20=-732(F) 21=-727(F) 22=-727(F) 23=-727(F) 24=-727(F) 25=-631(F) 26=-612(F)





									2-8-7			
LOADIN TCLL TCDL	<b>G</b> (psf) 25.0 10.0	SPACING- Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15	CSI. TC BC	0.58 0.18	DEFL. Vert(LL) Vert(CT)	in 0.01 0.01	(loc) 4-5 4-5	l/defl >999 >999	L/d 240 180	PLATES MT20	<b>GRIP</b> 197/144
BCLL BCDL	0.0 10.0	Rep Stress Incr Code IRC2018/TF	YES PI2014	WB Matri	0.00 k-MR	Horz(CT)	-0.01	3	n/a	n/a	Weight: 10 lb	FT = 20%

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 or 2-8-7 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical Max Horz 5=64(LC 8) Max Uplift 5=-200(LC 8), 3=-16(LC 12), 4=-11(LC 1) Max Grav 5=427(LC 1), 3=11(LC 22), 4=36(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-366/408

### 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 Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-7-11 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.

Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=200.

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.







									2-8-6			
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	TC	0.58	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TF	12014	Matri	k-MR						Weight: 10 lb	FT = 20%

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 or 2-8-6 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical Max Horz 5=64(LC 8) Max Uplift 5=-200(LC 8), 3=-16(LC 12), 4=-11(LC 1) Max Grav 5=427(LC 1), 3=10(LC 22), 4=36(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-366/408

## 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 Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-7-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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.

Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=200.

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.







			2-9-3 2-9-3			5-6-6 2-9-3		
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNOCodeIRC2018/TPI2014	CSI. TC 0.67 BC 0.33 WB 0.02 Matrix-MP	DEFL. Vert(LL) -0. Vert(CT) -0. Horz(CT) -0.	in (loc) .05 6-7 .10 6-7 .00 5	) I/defl 7 >999 7 >658 5 n/a	L/d 240 180 n/a	<b>PLATES</b> MT20 Weight: 25 lb	<b>GRIP</b> 197/144 FT = 20%

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

BRACING-TOP CHORD

Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. 7=0-7-6, 5=Mechanical (size) Max Horz 7=95(LC 4) Max Uplift 7=-182(LC 4), 5=-55(LC 8) Max Grav 7=458(LC 1), 5=156(LC 37)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-7=-397/174

# 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) 5 except (jt=lb) 7=182
- 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: 1-2=-70, 2-4=-70, 5-7=-20 Concentrated Loads (lb)

Vert: 8=70(F=35, B=35)









						3-1-6 3-1-6				6-2-14 3-1-8		
Plate Offs	sets (X,Y)	[2:0-2-12,0-3-0]		1		T						
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	TC	0.67	Vert(LL)	-0.01	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.02	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/T	PI2014	Matri	x-MS						Weight: 28 lb	FT = 20%

LUMBER-	2x4 SPE No 2	BRACING-	Structural wood sheathing directly applied or 6-0-0 oc purlins
BOT CHORD	2x4 SPF No.2		except end verticals.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 10=0-4-9, 7=Mechanical

Max Horz 10=103(LC 21) Max Uplift 10=-192(LC 4), 7=-82(LC 8)

Max Grav 10=503(LC 1), 7=214(LC 1)

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

TOP CHORD 2-10=-482/209

BOT CHORD 7-8=-162/326

WEBS 2-9=-50/272, 3-7=-336/167

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.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 10=192.

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 (blf)

Vert: 1-2=-70, 2-4=-70, 4-5=-20, 9-10=-20, 6-8=-20 Concentrated Loads (lb)

Vert: 12=17(F)







TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	TC 0.58 BC 0.17 WB 0.00 Matrix-MR	Vert(LL) Vert(CT) Horz(CT)	0.01 0.01 -0.02	4-5 4-5 3	>999 >999 n/a	240 180 n/a	MT20 Weight: 11 lb	197/144 FT = 20%	
LUMBER-			BRACING-							

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

BRACING-TOP CHORD Stru exc BOT CHORD Rigi

Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

# REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical

Max Horz 5=63(LC 8) Max Uplift 5=-191(LC 8), 3=-55(LC 25), 4=-21(LC 13) Max Grav 5=427(LC 1), 3=55(LC 32), 4=48(LC 3)

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

TOP CHORD 2-5=-370/405

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 Corner(3) -2-8-9 to 1-6-6, Exterior(2R) 1-6-6 to 2-10-8 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
- 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, 4 except (jt=lb) 5=191.
- 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: 1-2=-70, 2-3=-70, 4-5=-20

Concentrated Loads (lb) Vert: 3=22(F) 4=-3(F)







LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.58 BC 0.14 WB 0.00 Matrix-MR	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         0.00         4-5         >999         240           Vert(CT)         0.00         4-5         >999         180           Horz(CT)         -0.02         3         n/a         n/a	PLATES         GRIP           MT20         197/144           Weight: 8 lb         FT = 20%
LUMBER- TOP CHORD 2x4	SPF No.2		BRACING- TOP CHORD Structural wood sheathing dire	ectly applied or 1-9-2 oc purlins,

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

TOP CHORE BOT CHORD

except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical

Max Horz 5=50(LC 9) Max Uplift 5=-222(LC 8), 3=-75(LC 1), 4=-31(LC 1)

Max Grav 5=450(LC 1), 3=46(LC 8), 4=22(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-387/441

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, 4 except (jt=lb) 5=222.

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







LOADING (p TCLL 22 TCDL 10 BCLL BCDL 10	psf) 25.0 0.0 0.0 0.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TF	2-0-0 1.15 1.15 YES 212014	CSI. TC BC WB Matrix	0.58 0.17 0.00 <-MR	DEFL. Vert(LL) Vert(CT) Horz(CT)	in 0.01 0.01 -0.02	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 10 lb	<b>GRIP</b> 197/144 FT = 20%	
LUMBER-						BRACING-							

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 2-8-7 oc purlins,
BOT CHORD	2x4 SPF No.2		except end verticals.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

# REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical

Max Horz 5=61(LC 8) Max Uplift 5=-194(LC 8), 3=-18(LC 12), 4=-8(LC 1) Max Grav 5=427(LC 1), 3=8(LC 22), 4=37(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-369/406

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 Corner(3) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-7-11 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.

Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=194.

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.







LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-2=-70, 2-4=-70, 4-5=-20, 6-9=-20

Concentrated Loads (lb)

Vert: 10=117(F=59, B=59) 13=-5(F=-2, B=-2)



NITEK 16023 Swingley Ridge Rd Chesterfield, MO 63017



LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.58 BC 0.17 WB 0.00 Matrix-MR	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         0.01         4-5         >999         240           Vert(CT)         0.01         4-5         >999         180           Horz(CT)         -0.02         3         n/a         n/a	PLATES         GRIP           MT20         197/144           Weight: 11 lb         FT = 20%
LUMBER-			BRACING-	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-0-0 oc purlins,
BOT CHORD	2x4 SPF No.2		except end verticals.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS. (size) 5=0-7-6, 3=Mechanical, 4=Mechanical

Max Horz 5=64(LC 8) Max Uplift 5=-190(LC 8), 3=-25(LC 12), 4=-1(LC 1) Max Grav 5=428(LC 1), 3=25(LC 1), 4=43(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-5=-371/405

TOP CHORD

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) -2-8-8 to 1-6-6, Exterior(2R) 1-6-6 to 2-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=190.

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.







<b> </b>	5- 5-	-6-0 -6-0			<u>7-6-0</u> 2-0-0	1
LOADING (psf) TCLL 25.0 TCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	<b>CSI.</b> TC 0.66 BC 0.23	DEFL. Vert(LL) -0 Vert(CT) -0	in (loc) 0.03 6-7 0.06 6-7	l/defl L/d >999 240 >999 180	PLATES         GRIP           MT20         197/144
BCDL 10.0	Code IRC2018/TPI2014	WB 0.06 Matrix-MP		).00 5	n/a n/a	Weight: 32 lb FT = 20%

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. 7=Mechanical, 5=0-3-8 (size) Max Horz 7=-82(LC 4) Max Uplift 7=-88(LC 4), 5=-139(LC 5)

Max Grav 7=291(LC 21), 5=473(LC 1)

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

1-7=-253/101, 2-3=-270/62, 3-5=-478/136 TOP CHORD

WEBS 3-6=-14/270

## 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; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 5 = 139

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

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

9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 30 lb up at 5-6-0 on top chord, and 32 lb down and 36 lb up at 5-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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

# LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf) Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20

Concentrated Loads (lb) Vert: 6=11(B) 10=11(B) 11=11(B)



Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.

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

MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



LOADING (psf)         SPACING- TCLL         2-0-0 Plate Grip DOL         CSI.         DEFL.         in         (loc)         //defl         L/d         PLATES         GRIP           TCLL         25.0         Plate Grip DOL         1.15         TC         0.33         Vert(LL)         -0.02         8 >999         240         MT20         197/144           TCDL         10.0         Lumber DOL         1.15         BC         0.24         Vert(CT)         -0.03         8 >999         180           BCLL         0.0         Rep Stress Incr         YES         WB         0.09         Horz(CT)         0.01         6         n/a         n/a		<u>3-6-0</u> 3-6-0	5-2-8 1-8-8		7-6-0 2-3-8	)			
BCDL 10.0 Code IRC2018/1P12014 Matrix-AS Weight: 31 ID F1 = 20%	LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.33 BC 0.24 WB 0.09 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.02 8 -0.03 8 0.01 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 31 lb	<b>GRIP</b> 197/144 FT = 20%

TOP CHORD

BOT CHORD

# LUMBER-

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

2x4 SPF No.2

REACTIONS. 10=Mechanical, 6=0-3-8 (size) Max Horz 10=-101(LC 8) Max Uplift 10=-60(LC 8), 6=-115(LC 9) Max Grav 10=304(LC 1), 6=489(LC 1)

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

- 1-10=-265/162, 1-2=-398/187, 2-3=-420/166, 4-6=-431/272 TOP CHORD
- BOT CHORD 8-9=-60/425

WEBS 1-9=-189/373

### 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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-6-0, Exterior(2R) 3-6-0 to 7-8-15, Interior(1) 7-8-15 to 9-5-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) 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) 10 except (jt=lb) 6=115.

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.



Structural wood sheathing directly applied, except end verticals, and

2-0-0 oc purlins (6-0-0 max.): 1-2.

Rigid ceiling directly applied.

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

May 6,2021





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.



16023 Swingley Ridge Rd Chesterfield, MO 63017



BRACING-

TOP CHORD

BOT CHORD

#### LUMBER-

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

REACTIONS. (size) 8=Mechanical, 5=0-3-8 Max Horz 8=-168(LC 8) Max Uplift 8=-78(LC 13), 5=-116(LC 13)

Max Grav 8=304(LC 1), 5=489(LC 1)

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

TOP CHORD 2-3=-284/103, 3-5=-496/295

BOT CHORD 7-8=-116/650

WEBS 2-8=-611/324, 3-6=-130/315

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 9-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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) 5=116.

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

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



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

NITEK\* 16023 Swingley Ridge Rd Chesterfield, MO 63017



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

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

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

REACTIONS. All bearings 14-0-0.

(lb) -Max Horz 23=57(LC 16)

Max Uplift All uplift 100 lb or less at joint(s) 13, 19, 20, 21, 22, 17, 16, 15, 14 except 23=-104(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 13, 18, 19, 20, 21, 22, 17, 16, 15, 14 except 23=294(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-23=-265/237

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 Corner(3E) -1-11-0 to 1-1-0, Exterior(2N) 1-1-0 to 7-0-0, Corner(3R) 7-0-0 to 10-0-0, Exterior(2N) 10-0-0 to 13-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) All plates are 2x4 MT20 unless otherwise indicated.

5) Gable requires continuous bottom chord bearing.

6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

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

8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 19, 20, 21, 22, 17, 16, 15, 14 except (it=lb) 23=104.

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.



MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &

MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=104, 2=151.

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.







- Interior(1) 10-0-0 to 13-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) 13=152, 7=101.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.







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 system. See MSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601 May 6,2021





1	C
1	С

I	0-0-0	
1	0-0-0	

Plate Offsets (X,Y)	[2:0-7-8,Edge]					
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code. IRC2018/TPI2014	CSI. TC 0.24 BC 0.60 WB 0.19 Matrix-AS	DEFL.         ir           Vert(LL)         -0.15           Vert(CT)         -0.29           Horz(CT)         0.01	i (loc) 8-11 8-11 2	l/defl L/d >999 240 >559 180 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 62 lb         FT = 20%
LUMBER- TOP CHORD 2x4 SI BOT CHORD 2x4 SI WEBS 2x4 SI SLIDER Left 2x	PF No.2 PF No.2 PF No.2 PF No.2 66 SPF No.2 -t 2-6-0		BRACING- TOP CHORD BOT CHORD	Structu 2-0-0 c Rigid c	iral wood sheathir oc purlins (6-0-0 m eiling directly app	ng directly applied, except end verticals, and lax.): 5-6. lied.
REACTIONS. (siz Max H Max U Max 0	re) 7=Mechanical, 2=0-3-8 Horz 2=211(LC 11) Jplift 7=-121(LC 9), 2=-160(LC 12) Grav 7=601(LC 25), 2=754(LC 25)					

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

- TOP CHORD 2-4=-708/195, 4-5=-477/138, 5-6=-388/157, 6-7=-589/226
- BOT CHORD 2-8=-359/686 WEBS 4-8=-350/191, 6-8=-227/612

# 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 10-0-0, Exterior(2E) 10-0-0 to 13-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=121, 2=160.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



3-8-8

16023 Swingley Ridge Rd Chesterfield, MO 63017



L	U	М	в	Е	R-	

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x6 SPF No.2 - t 2-6-0

BRACING-TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6. BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 7=Mechanical, 2=0-3-8 Max Horz 2=247(LC 11) Max Uplift 7=-133(LC 12), 2=-160(LC 12) Max Grav 7=601(LC 1), 2=754(LC 1)

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

TOP CHORD 2-4=-796/174, 4-5=-824/264

BOT CHORD 2-8=-314/690

WEBS 4-8=-368/224, 5-7=-568/337, 5-8=-242/727

# 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 12-0-0, Exterior(2E) 12-0-0 to 13-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=133, 2=160.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.







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

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=113, 2=110.

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.







 LUMBER 

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x6 SPF No.2 - t 3-9-2

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 2=0-3-8, 9=Mechanical Max Horz 2=282(LC 11) Max Uplift 2=-134(LC 12), 9=-108(LC 9) Max Grav 2=748(LC 1), 9=606(LC 1)

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

TOP CHORD 2-5=-653/158

BOT CHORD 2-10=-294/656. 9-10=-294/656

WEBS 5-10=0/280, 5-9=-712/244

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

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) 2=134, 9=108.
- 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.







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/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd Chesterfield, MO 63017



LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	<b>CSI.</b> TC 0.54 BC 0.46 WB 0.29 Matrix-AS	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         -0.08         9-10         >999         240           Vert(CT)         -0.16         9-10         >999         180           Horz(CT)         0.02         9         n/a         n/a	PLATES         GRIP           MT20         197/144           Weight: 66 lb         FT = 20%

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x6 SPF No.2 - t 2-6-0

BRACING-TOP CHORD BOT CHORD WEBS

Structural wood sheathing directly applied, except end verticals.
 Rigid ceiling directly applied.
 1 Row at midpt 5-9

REACTIONS. (size) 2=0-3-8, 9=Mechanical Max Horz 2=318(LC 11) Max Uplift 2=-142(LC 12), 9=-122(LC 9) Max Grav 2=837(LC 1), 9=697(LC 1)

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

TOP CHORD 2-5=-848/168

BOT CHORD 2-10=-305/783. 9-10=-305/783

WEBS 5-10=0/324, 5-9=-845/248

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

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) 2=142, 9=122.

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.



16023 Swingley Ridge Rd Chesterfield, MO 63017



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) 10=122, 2=141.

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.







BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS	Weight: 78 lb FT = 20%
BCLL	0.0	Rep Stress Incr YES	WB 0.74	Horz(CT) 0.02 8 n/a n/a
TCDL	10.0	Lumber DOL 1.15	BC 0.36	Vert(CT) -0.10 9-10 >999 180
TCLL	25.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) -0.04 9-10 >999 240 MT20 197/144
LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP

LUMBER- TOP CHORD	2x4 SPF No.2	BRACING- TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
WEBS SLIDER	2x4 SPF No.2 Left 2x6 SPF No.2 -t 2-6-0	BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 8=Mechanical, 2=0-3-8 Max Horz 2=287(LC 11) Max Uplift 8=-161(LC 12), 2=-176(LC 12) Max Grav 8=692(LC 1), 2=843(LC 1)

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

- TOP CHORD 2-4=-816/185, 4-6=-300/125
- BOT CHORD 2-10=-326/813, 9-10=-326/813
- WEBS 4-10=0/278, 4-9=-721/254, 6-9=-96/463, 6-8=-793/285

# 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 14-2-1, Exterior(2E) 14-2-1 to 15-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=161, 2=176.
- 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.



















16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO	
						145972593
2684039	E16	Half Hip Girder	1	2		
				<b>_</b>	Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.	430 s Apr	20 2021 MiTek Industries, Inc. Wed May 5 08:57:38 2021	Page 2

#### Wed May ID:WV5xOZ45cNK4PQ2HmSu\_xyyPFt9-UrKw9VnFdg?ZhZxG0TAmyTRS5jhHb4mdebByxPzJbih

# NOTES-

- 11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 4-0-12 to connect truss(es) to back face of bottom chord.
- 12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-0-12 from the left end to 12-0-12 to connect truss(es) to back face of bottom chord.
- 13) Fill all nail holes where hanger is in contact with lumber.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 330 lb down and 97 lb up at 13-10-4 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: 1-3=-70, 3-5=-70, 5-8=-70, 15-16=-20, 3-11=-20, 9-10=-20 Concentrated Loads (lb)
  - Vert: 15=-280(B) 13=-316(B) 11=-330(B) 20=-325(B) 21=-325(B) 22=-321(B) 23=-321(B)





	(nef)	SPACING-	2-0-0	190		DEEL	in	(loc)	l/defl	L/d		GPIP
TOLI	a (psi)		2-0-0	TC	0.40		0.04	(100)		120	MTOO	407/444
TOLL	25.0	Plate Grip DOL	1.15	10	0.49	Ven(LL)	0.01	1	n/r	120	IVIT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.01	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI	2014	Matrix	k-R						Weight: 9 lb	FT = 20%

BRACING-

TOP CHORD

BOT CHORD

# LUMBER-

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

WEBS 2x4 SPF No.2 **REACTIONS.** (size) 5=1-11-8

ONS. (size) 5=1-11-8, 4=1-11-8 Max Horz 5=88(LC 11) Max Uplift 5=-108(LC 8), 4=-21(LC 20) Max Grav 5=309(LC 1), 4=29(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-271/508

## 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 Corner(3E) -1-11-0 to 1-1-0, Exterior(2N) 1-1-0 to 1-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

3) Gable requires continuous bottom chord bearing.

4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

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

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

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=108.

 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 1-11-8 oc purlins,

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

except end verticals.

16023 Swingley Ridge Rd Chesterfield, MO 63017



LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.23 BC 0.02 WB 0.00 Matrix-MP	DEFL.         ir           Vert(LL)         0.00           Vert(CT)         -0.00           Horz(CT)         -0.00	n (loc) I/defi L/d 7 >999 240 7 >999 180 2 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 12 lb         FT = 20%	
LUMBER- TOP CHORD 2x4 \$ BOT CHORD 2x4 \$ WEBS 2x4 \$	PF No.2 PF No.2 PF No.2 PF No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals.		

SLIDER Left 2x6 SPF No.2 -t 1-11-3 **REACTIONS.** (size) 4=Mechanical, 2=0-3-8 Max Horz 2=68(LC 11)

Max Uplift 4=-19(LC 9), 2=-93(LC 8) Max Grav 4=34(LC 3), 2=287(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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 1-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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







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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 9-8-0, Exterior(2R) 9-8-0 to 12-8-0, Interior(1) 12-8-0 to 21-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=190, 8=190.

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.



May 6,2021





	2-8-0		9-8-0	1		1	6-8-0	1	18-8-0
	2-8-0		7-0-0	1			7-0-0	1	2-0-0
Plate Offsets (X,Y)-	- [7:0-4-8,0-1-11], [10:0	-1-12,0-4-0], [13:	0-1-12,0-4-0]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.14 11-13	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.28 11-13	>778	180		
BCLL 0.0	Rep Stress Inc	YES	WB 0.84	Horz(CT)	0.21 8	n/a	n/a		
BCDL 10.0	Code IRC2018	/TPI2014	Matrix-AS					Weight: 79 lb	FT = 20%
				1				1	
LUMBER-				BRACING	-				

TOP CHORD

BOT CHORD

WEBS

#### LUMBER-

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

- REACTIONS. (size) 8=Mechanical, 15=0-3-8 Max Horz 15=95(LC 16) Max Uplift 8=-123(LC 13), 15=-189(LC 12) Max Grav 8=801(LC 1), 15=979(LC 1)
- FORCES. (lb) Max. Comp./Max. Ten. All forces 250 (lb) or less except when shown.
- TOP CHORD 3-4=-2494/650, 4-5=-1315/341, 5-6=-1316/350, 6-7=-2082/527, 7-8=-818/212
- BOT CHORD  $14 - 15 = -151/499, \ 13 - 14 = -74/354, \ 3 - 13 = -608/2224, \ 11 - 13 = -656/2341, \ 10 - 11 = -527/1953, \ 3 - 12 = -608/2224, \ 11 - 13 = -656/2341, \ 10 - 11 = -527/1953, \ 10$ 7-10=-483/1871
- WEBS 5-11=-25/469, 2-15=-427/348, 3-14=-489/126, 3-15=-736/115, 4-13=0/378, 4-11=-1253/423, 6-11=-933/329

#### NOTES-

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-2-4, Interior(1) 1-2-4 to 9-8-0, Exterior(2R) 9-8-0 to 12-8-0, Interior(1) 12-8-0 to 18-3-2 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=123, 15=189.

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.

4-11

Rigid ceiling directly applied.

1 Row at midpt





BCLL 0 BCDL 10	.0 .0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.85 Matrix-AS	Horz(CT) 0.2	20 8 n/a n/a	a Weight: 79 lt	FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS	2x4 SP 2x4 SP 2x4 SP 2-15: 2	2F No.2 2F No.2 2F No.2 *Except* x6 SPF No.2		BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheat Rigid ceiling directly a 1 Row at midpt	thing directly applied, exce applied. 4-11	pt end verticals.

REACTIONS. (size) 8=Mechanical, 15=0-3-8 Max Horz 15=96(LC 16) Max Uplift 8=-123(LC 13), 15=-190(LC 12) Max Grav 8=796(LC 1), 15=982(LC 1)

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

TOP CHORD 3-4=-2401/627, 4-5=-1303/338, 5-6=-1304/347, 6-7=-2073/525, 7-8=-813/210

- BOT CHORD 14-15=-132/429, 13-14=-60/304, 3-13=-588/2147, 11-13=-635/2257, 10-11=-525/1945, 7-10=-481/1864
- WEBS 5-11=-23/464, 2-15=-466/382, 3-15=-664/92, 3-14=-407/104, 4-13=0/351, 6-11=-935/329, 4-11=-1188/408

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) -1-11-0 to 1-2-4, Interior(1) 1-2-4 to 9-8-0, Exterior(2R) 9-8-0 to 12-8-0, Interior(1) 12-8-0 to 18-3-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=123, 15=190.

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.



16023 Swingley Ridge Rd Chesterfield, MO 63017



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.



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 trusse systems, see **ANSUTP11** Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601 **.** 




May 6,2021

Mitek° 16023 Swingley Ridge Rd Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO	145072601
2684039	GR1	Flat Girder	1	2	leb Reference (entional)	14597200
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8 0745 - NIK	430 s Apr 2	20 2021 MiTek IND25vikM00ROM4DZ4Tkarra InvColo. km	Page 2
NOTES- 15) Use Simpson Strong-T chord. 16) Fill all nail holes where	ie LUS24 (4-10d Girder, 2-10 hanger is in contact with lum	וט:יעיט 10 Truss, Single Ply Girder) or equivalent at 17-8 ber.	-12 from	the left er	nd to connect truss(es) to back face of bottom	JSZJDII
LOAD CASE(S) Standard 1) Dead + Roof Live (balan Uniform Loads (plf) Vert: 1-8=-770, Concentrated Loads (lb) Vert: 14=-581(E 2) Dead + 0.75 Roof Live (l Uniform Loads (plf) Vert: 1-8=-758, Concentrated Loads (lb) Vert: 14=-498(E 3) Dead + Uninhabitable At Uniform Loads (plf) Vert: 1-8=-720, Concentrated Loads (lb) Vert: 14=-364(E 4) Dead + 0.6 MWFRS Wir Uniform Loads (plf) Vert: 1-8=-671, Horz: 1-15=17, Concentrated Loads (lb) Vert: 14=-141(B) 5) Dead + 0.6 MWERS Wir	Particular in a contact with ham beed): Lumber Increase=1.15. 9-15=-20 3) 12=-586(B) 10=-586(B) 16= balanced): Lumber Increase= 9-15=-20 3) 12=-504(B) 10=-504(B) 16= ttic Without Storage: Lumber 9-15=-40 3) 12=-378(B) 10=-377(B) 16= nd (Pos. Internal) Left: Lumber 9-15=-8 8-9=22 ) 12=122(B) 10=116(B) 16=1:	<ul> <li>Plate Increase=1.15</li> <li>-581(B) 17=-586(B) 18=-586(B) 19=-586(B) 20</li> <li>-1.15, Plate Increase=1.15</li> <li>-498(B) 17=-504(B) 18=-504(B) 19=-504(B) 20</li> <li>Increase=1.25, Plate Increase=1.25</li> <li>=-364(B) 17=-378(B) 18=-378(B) 19=-378(B) 20</li> <li>ar Increase=1.60, Plate Increase=1.60</li> <li>30(B) 17=122(B) 18=122(B) 19=122(B) 20=122</li> <li>an Increase=1.60, Plate Increase=1.60</li> </ul>	=-586(B) =-504(B) =-378(B) [B) 21=11	21=-589(f 21=-507(f 21=-383(f 5(B)	3) 3) 3)	
<ol> <li>Dead + 0.6 MWFRS Wir Uniform Loads (plf) Vert: 1-8=-671, Horz: 1-15=-22, Concentrated Loads (lb) Vert: 14=141(B)</li> <li>Dead + 0.6 MWFRS Wir Uniform Loads (plf) Vert: 1-8=-691, Horz: 1-15=28, Concentrated Loads (lb)</li> </ol>	nd (Pos. Internal) Right: Lumb 9-15=-8 8-9=-17 ) 12=122(B) 10=116(B) 16=1 nd (Neg. Internal) Left: Lumbe 9-15=-20 8-9=10	ber Increase=1.60, Plate Increase=1.60 30(B) 17=122(B) 18=122(B) 19=122(B) 20=122 er Increase=1.60, Plate Increase=1.60	(B) 21=11	5(B)		
Vert: 14=153(B) 7) Dead + 0.6 MWFRS Wir Uniform Loads (plf) Vert: 1-8=-691, Horz: 1-15=-10, Concentrated Loads (lb) Vert: 14=153(B) 8) Dead + 0.6 MWFRS Wir Uniform Loads (plf) Vert: 1-8=-671, Horz: 1-15=14, Concentrated Loads (lb)	) 12=133(B) 10=128(B) 16=1- nd (Neg. Internal) Right: Lumi 9-15=-20 8-9=-28 ) 12=133(B) 10=128(B) 16=1- nd (Pos. Internal) 1st Parallel: 9-15=-8 8-9=20	41(B) 17=133(B) 18=133(B) 19=133(B) 20=133 ber Increase=1.60, Plate Increase=1.60 41(B) 17=133(B) 18=133(B) 19=133(B) 20=133 : Lumber Increase=1.60, Plate Increase=1.60	B) 21=12 B) 21=12	24(B) 24(B)		
Vert: 14=141(B) 9) Dead + 0.6 MWFRS Wir Uniform Loads (plf) Vert: 1-8=-671, Horz: 1-15=-20, Concentrated Loads (lb) Vert: 14=141(B) 10) Dead + 0.6 MWFRS W Uniform Loads (plf)	) 12=122(B) 10=116(B) 16=1 nd (Pos. Internal) 2nd Paralle 9-15=-8 8-9=-14 ) 12=122(B) 10=116(B) 16=1 find (Pos. Internal) 3rd Paralle	30(B) 17=122(B) 18=122(B) 19=122(B) 20=122 I: Lumber Increase=1.60, Plate Increase=1.60 30(B) 17=122(B) 18=122(B) 19=122(B) 20=122 el: Lumber Increase=1.60, Plate Increase=1.60	B) 21=11 B) 21=11	5(B) 5(B)		
Vert: 1-8=-684 Horz: 1-15=7, Concentrated Loads (lk Vert: 14=141(f 11) Dead + 0.6 MWFRS W Uniform Loads (plf) Vert: 1-8=-684 Horz: 1-15=-1! Concentrated Loads (lk Vert: 14=141(f	i, 9-15=-8 8-9=15 b) 3) 12=122(B) 10=116(B) 16= find (Pos. Internal) 4th Paralle I, 9-15=-8 5, 8-9=-7 b) 3) 12=122(B) 10=116(B) 16=	130(B) 17=122(B) 18=122(B) 19=122(B) 20=12 el: Lumber Increase=1.60, Plate Increase=1.60 130(B) 17=122(B) 18=122(B) 19=122(B) 20=12	2(B) 21=1 2(B) 21=1	115(B) 115(B)		
<ul> <li>12) Dead + 0.6 MWFRS W Uniform Loads (plf) Vert: 1-8=-691 Horz: 1-15=26 Concentrated Loads (lt Vert: 14=153(E</li> <li>13) Dead + 0.6 MWFRS W</li> </ul>	(ind (Neg. Internal) 1st Paralle , 9-15=-20 , 8-9=8 a) B) 12=133(B) 10=128(B) 16= find (Neg. Internal) 2nd Parall	el: Lumber Increase=1.60, Plate Increase=1.60 141(B) 17=133(B) 18=133(B) 19=133(B) 20=13 lel: Lumber Increase=1.60, Plate Increase=1.60	3(B) 21=1	124(B)		

# Continued on page 3



Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO
2684039	GR1	Flat Girder	1	2	145972601
Builders FirstSource (Valley	Center). Valley Center, K	S - 67147.		3.430 s Apr	Job Reference (optional) 20 2021 MiTek Industries, Inc. Wed May 5 08:58:03 2021 Page 3
(,	,	ID:W	/5xOZ45cN	IK4PQ2Hm	Su_xyyPFt9-FfLNP25xkM90BOM4zD7dTkzrrnJpyGalO_kmJSzJbil
LOAD CASE(S) Standard Uniform Loads (plf) Vert: 1-8=-69: Horz: 1-15=-8	1, 9-15=-20 5-8-9=-26				
Concentrated Loads (I	b)				
Vert: 14=153( 14) Dead: Lumber Increas	B) 12=133(B) 10=128(B) 16= e=0.90, Plate Increase=0.90	141(B) 17=133(B) 18=133(B) 19=133(B) 20= Plt. metal=0.90	133(B) 21=	=124(B)	
Uniform Loads (plf)					
Vert: 1-8=-720 Concentrated Loads (I	0, 9-15=-20 b)				
Vert: 14=-249	(B) 12=-257(B) 10=-257(B) 1	6=-249(B) 17=-257(B) 18=-257(B) 19=-257(B)	) 20=-257(	B) 21=-260	D(B)
Uniform Loads (plf)	(Dal.) + 0.75(0.6 MWFRS W	ind (Neg. Int) Leπ): Lumber Increase=1.60, PI	ate increas	se=1.60	
Vert: 1-8=-73	6, 9-15=-20				
Concentrated Loads (I	b)				
Vert: 14=86(B	3) 12=70(B) 10=66(B) 16=77(I	B) 17=70(B) 18=70(B) 19=70(B) 20=70(B) 21	=62(B)	200-1 60	
Uniform Loads (plf)	(bal.) + 0.75(0.0 MWERS W	ind (neg. int) Right). Lumber increase=1.00, i		ase=1.00	
Vert: 1-8=-73	6, 9-15=-20 / 8-921				
Concentrated Loads (I	b)				
Vert: 14=86(B	3) 12=70(B) 10=66(B) 16=77(I	B) 17=70(B) 18=70(B) 19=70(B) 20=70(B) 21	=62(B)	Incrosso-	1.60
Uniform Loads (plf)	(bal.) + 0.75(0.0 MWERS W	nu (neg. m) ist ratallel. Lumber inclease=	1.00, Flate	Increase=	1.00
Vert: 1-8=-736	6, 9-15=-20 8-9-6				
Concentrated Loads (I	b)				
Vert: 14=86(B 18) Dead + 0 75 Roof Live	8) 12=70(B) 10=66(B) 16=77(I 2 (bal ) + 0 75(0 6 MWFRS Wi	B) 17=70(B) 18=70(B) 19=70(B) 20=70(B) 21 ind (Neg. Int) 2nd Parallel): Lumber Increase=	=62(B) :1.60. Plate	e Increase:	=1 60
Uniform Loads (plf)			1100, 1 1410	, moreace	
Vert: 1-8=-736 Horz: 1-15=-6	6, 9-15=-20 5, 8-9=-19				
Concentrated Loads (I	b)		aa (5)		
Vert: 14=86(E 19) Dead + 0.6 MWFRS V	8) 12=70(B) 10=66(B) 16=77(I Vind Min. Left: Lumber Increa	B) 17=70(B) 18=70(B) 19=70(B) 20=70(B) 21 se=1.60, Plate Increase=1.60	=62(B)		
Uniform Loads (plf)					
Vert: 1-8=-712 Horz: 1-15=16	2, 9-15=-8 S				
Concentrated Loads (I	b) B) 12, 74(B) 10, 77(B) 16, 00	(D) 17 74(D) 10 74(D) 10 74(D) 20 74(D) 2	1_7E(D)		
20) Dead + 0.6 MWFRS V	Vind Min. Right: Lumber Incre	(B) 17=74(B) 18=74(B) 19=74(B) 20=74(B) 2 ase=1.60, Plate Increase=1.60	I=/3(B)		
Uniform Loads (plf)	2 0 15- 9				
Horz: 8-9=-16	2, 9-13=-0				
Concentrated Loads (I	b) B) 12–74(B) 10–77(B) 16–90	(B) 17-74(B) 18-74(B) 19-74(B) 20-74(B) 2	1–75(B)		
21) Reversal: Dead + 0.6	MWFRS Wind (Pos. Internal)	Left: Lumber Increase=1.60, Plate Increase=	1.60		
Uniform Loads (plf) Vert: 1-8=-67	1 9-15=-8				
Horz: 1-15=17	7, 8-9=22				
Concentrated Loads (I Vert: 14=-182	b) (B) 12=-241(B) 10=-218(B) 1/	6=-191(B) 17=-241(B) 18=-241(B) 19=-241(B	) 20=-241(	B) 21=-219	9(B)
22) Reversal: Dead + 0.6	MWFRS Wind (Pos. Internal)	Right: Lumber Increase=1.60, Plate Increase	=1.60	,	
Uniform Loads (pif) Vert: 1-8=-67	1, 9-15=-8				
Horz: 1-15=-2	2, 8-9=-17				
Vert: 14=-182	(B) 12=-241(B) 10=-218(B) 1	6=-191(B) 17=-241(B) 18=-241(B) 19=-241(B	) 20=-241(	B) 21=-219	9(B)
23) Reversal: Dead + 0.6	MWFRS Wind (Neg. Internal)	Left: Lumber Increase=1.60, Plate Increase=	1.60		
Vert: 1-8=-69	1, 9-15=-20				
Horz: 1-15=28 Concentrated Loads (I	3, 8-9=10 b)				
Vert: 14=-171	(B) 12=-230(B) 10=-206(B) 1	6=-180(B) 17=-230(B) 18=-230(B) 19=-230(B	) 20=-230(	B) 21=-210	D(B)
24) Reversal: Dead + 0.6 Uniform Loads (plf)	MWFRS Wind (Neg. Internal)	Right: Lumber Increase=1.60, Plate Increase	=1.60		
Vert: 1-8=-69	1, 9-15=-20				
Horz: 1-15=-1 Concentrated Loads (I	0, 8-9=-28 b)				
Vert: 14=-171	(B) 12=-230(B) 10=-206(B) 1	6=-180(B) 17=-230(B) 18=-230(B) 19=-230(B	) 20=-230(	B) 21=-210	D(B)
Uniform Loads (plf)	www.rs wind (Pos. internal)	TSCF arallel. LUMBER INCREASE=1.00, Plate Inc	16926=1.00	U	
Vert: 1-8=-67	1, 9-15=-8 1, 8-9-20				
Concentrated Loads (I	b)				
Vert: 14=-182	(B) 12=-241(B) 10=-218(B) 1	6=-191(B) 17=-241(B) 18=-241(B) 19=-241(B	) 20=-241(	B) 21=-219	9(B)
Continued on page 4					



Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO	14507000
2684039	GR1	Flat Girder	1	2		14597260
Builders FirstSource (Va	alley Center), Va	alley Center, KS - 67147,	8	8.430 s Apr	Job Reference (optional) r 20 2021 MiTek Industries, Inc. Wed May 5 08:58	8:03 2021 Page 4
			ID:WV5xOZ45cN	K4PQ2Hm	nSu_xyyPFt9-FfLNP25xkM90BOM4zD7dTkzrrnJp	yGalO_kmJSzJbil
LOAD CASE(S) Stan			a 4.00 Diata Increase 4.0	<u>.</u>		
Uniform Loads (plf	).6 MWFR5 WIND (F	Pos. Internal) 2nd Parallel: Lumber Increas	e=1.60, Plate increase=1.6	0		
Vert: 1-8=	-671, 9-15=-8					
Horz: 1-15 Concentrated Load	)=-20, 8-9=-14 ds (lb)					
Vert: 14=-	182(B) 12=-241(B)	10=-218(B) 16=-191(B) 17=-241(B) 18=-24	41(B) 19=-241(B) 20=-241(	B) 21=-21	9(B)	
27) Reversal: Dead + (	0.6 MWFRS Wind (F	Pos. Internal) 3rd Parallel: Lumber Increase	e=1.60, Plate Increase=1.6	0		
Uniform Loads (plf	) 694 0 15- 9					
Horz: 1-15	5=7, 8-9=15					
Concentrated Load	ls (lb)					
Vert: 14=-	182(B) 12=-241(B)	10=-218(B) 16=-191(B) 17=-241(B) 18=-24	11(B) 19=-241(B) 20=-241(B) 20=-240(B) 20=-2	B) 21=-21	9(B)	
28) Reversal: Dead + 0	).0 10100FR5 00100 (F	Pos. Internal) 4th Parallel: Lumber Increase	e=1.60, Plate Increase=1.6	0		
Vert: 1-8=	, -684, 9-15=-8					
Horz: 1-15	5=-15, 8-9=-7					
Concentrated Load	IS (ID) 182(B) 12241(B) 1	10218(B) 16191(B) 17241(B) 1824	11(B) 19241(B) 20241(	B) 2121	9(B)	
29) Reversal: Dead + (	0.6 MWFRS Wind (1	Neg. Internal) 1st Parallel: Lumber Increase	e=1.60, Plate Increase=1.6	0	3(1)	
Uniform Loads (plf	)					
Vert: 1-8=	-691, 9-15=-20					
Concentrated Load	=20, o-9=o Is (lb)					
Vert: 14=-	171(B) 12=-230(B)	10=-206(B) 16=-180(B) 17=-230(B) 18=-23	B0(B) 19=-230(B) 20=-230(B)	B) 21=-21	0(B)	
30) Reversal: Dead + (	0.6 MWFRS Wind (N	Neg. Internal) 2nd Parallel: Lumber Increas	e=1.60, Plate Increase=1.6	60		
Uniform Loads (pir Vert: 1-8=	) -691 9-15=-20					
Horz: 1-15	5=-8, 8-9=-26					
Concentrated Load	ls (lb)					
Vert: 14=-	171(B) 12=-230(B) 75 Boof Live (bal.)	10=-206(B) 16=-180(B) 17=-230(B) 18=-23	30(B) 19=-230(B) 20=-230(	B) 21=-21	0(B)	
Uniform Loads (plf	)	) + 0.75(0.8 MWFRS Wind (Neg. Int) Lett).	Lumber increase=1.00, Pla	ale increa	Se=1.00	
Vert: 1-8=	, -736, 9-15=-20					
Horz: 1-15	5=21, 8-9=7					
Vert: 14=-	1S (ID) 377(B) 12=-422(B)	10=-404(B) 16=-384(B) 17=-422(B) 18=-42	22(B) 19=-422(B) 20=-422(	B) 21=-40	8(B)	
32) Reversal: Dead + (	0.75 Roof Live (bal.)	) + 0.75(0.6 MWFRS Wind (Neg. Int) Right	): Lumber Increase=1.60, F	Plate Incre	ase=1.60	
Uniform Loads (plf	)					
Vert: 1-8=	-736, 9-15=-20					
Concentrated Load	ls (lb)					
Vert: 14=-	377(B) 12=-422(B)	10=-404(B) 16=-384(B) 17=-422(B) 18=-42	22(B) 19=-422(B) 20=-422(	B) 21=-40	8(B)	
33) Reversal: Dead + (	).75 Roof Live (bal.)	) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Pa	arallel): Lumber Increase=1	.60, Plate	Increase=1.60	
Vert: 1-8=	, -736. 9-15=-20					
Horz: 1-15	5=19, 8-9=6					
Concentrated Load	ls (lb)		20/E) 40 400/E) 00 400/	D) 04 40		
	377(B) 12=-422(B) ) 75 Roof Live (bal )	10=-404(B) 16=-384(B) 17=-422(B) 18=-42 ) + 0.75(0.6 MWERS Wind (Neg. Int) 2nd F	22(B) 19=-422(B) 20=-422( Parallel): Lumber Increase=	B) 21=-40 1.60 Plat	8(B) e	
Increase=1.60		, · · · · · · · · · · · · · · · · · · ·			-	
Uniform Loads (plf	)					
Vert: 1-8= Horz: 1-14	-736, 9-15=-20					
Concentrated Load	ls (lb)					
Vert: 14=-	377(B) 12=-422(B)	10=-404(B) 16=-384(B) 17=-422(B) 18=-42	22(B) 19=-422(B) 20=-422(	B) 21=-40	8(B)	
35) Reversal: Dead + (	).6 MWFRS Wind N	lin. Left: Lumber Increase=1.60, Plate Incre	ease=1.60			
Vert: 1-8=	, -712. 9-15=-8					
Horz: 1-15	5=16					
Concentrated Load	ls (lb)	40 470/0\ 40 464/0\ 47 402/0\ 40 4/	2/D) 40 402/D) 20 402/	D) 04 40		
	143(B) 12=-193(B) ) 6 MWFRS Wind M	10=-179(B) 16=-151(B) 17=-193(B) 18=-19 //in_Right_Lumber Increase=1.60_Plate Inc	93(B) 19=-193(B) 20=-193( prease=1.60	B) 21=-18	0(B)	
Uniform Loads (plf	)					
Vert: 1-8=	-712, 9-15=-8					
Horz: 8-9=	-16					
Concentrated Loss	le (lb)					





16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO	145972602			
2684039	GR2	FLAT GIRDER	1	2		110072002			
Builders FirstSource (Valley	Juilders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Apr 20 2021 MiTek Industries, Inc. Wed May 5 08:58:05 2021 Page 2								
NOTES- 12) Use Simpson Strong-T truss(es) to back face ( 13) Use Simpson Strong-T	NOTES- 12) Use Simpson Strong-Tie HGUS28-2 (36-10d Girder, 6-10d Truss) or equivalent spaced at 17-10-4 oc max. starting at 0-9-10 from the left end to 18-7-14 to connect truss(es) to back face of bottom chord.								
<ul><li>14) Use Simpson Strong-T connect truss(es) to ba</li><li>15) Fill all nail holes where</li></ul>	<ul> <li>14) Use Simpson Strong-Tie LUS24 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 4-8-12 from the left end to 16-8-12 to connect truss(es) to back face of bottom chord.</li> <li>15) Fill all nail holes where hanger is in contact with lumber.</li> </ul>								
LOAD CASE(S) Standard 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15									
Uniform Loads (plf) Vert: 1-7=-770, Concentrated Loads (lb)	8-14=-20								
Vert: 10=-672(E 2) Dead + 0.75 Roof Live (	3) 9=-672(B) 15=-1858(B) 16= balanced): Lumber Increase=	=-677(B) 17=-677(B) 18=-678(B) 19=-678(B) 20 1.15, Plate Increase=1.15	=-678(B)	21=-672(	B) 22=-1834(B)				
Vert: 1-7=-758, Concentrated Loads (Ib)	8-14=-20								
3) Dead + Uninhabitable A Uniform Loads (plf)	3) 9=-576(B) 15=-1697(B) 16 ttic Without Storage: Lumber	582(B) 17=-582(B) 18=-583(B) 19=-583(B) 20 Increase=1.25, Plate Increase=1.25	=-583(B)	21=-576(	B) 22=-1572(B)				
Vert: 1-7=-720, Concentrated Loads (lb) Vert: 10=-425(E	8-14=-40 ) 3) 9=-425(B) 15=-1440(B) 16=	=-437(B) 17=-437(B) 18=-438(B) 19=-438(B) 20	=-438(B)	21=-425(	B) 22=-1148(B)				
4) Dead + 0.6 MWFRS Win Uniform Loads (plf) Vert: 1-7=-671, Horz <sup>-</sup> 1-14=17	nd (Pos. Internal) Left: Lumbe 8-14=-8 7-8=22	er Increase=1.60, Plate Increase=1.60							
Concentrated Loads (lb) Vert: 10=169(B 5) Dead + 0.6 MWFRS Wij	) ) 9=152(B) 15=-975(B) 16=13 nd (Pos. Internal) Right: Lumb	30(B) 17=130(B) 18=130(B) 19=130(B) 20=130( per Increase=1.60. Plate Increase=1.60	B) 21=14	4(B) 22=4	71(B)				
Uniform Loads (plf) Vert: 1-7=-671, Horz: 1-14=-22	8-14=-8 . 7-8=-17								
Concentrated Loads (lb) Vert: 10=169(B	) ) 9=152(B) 15=-975(B) 16=13 nd (Neg. Internal) Left: Lumb	30(B) 17=130(B) 18=130(B) 19=130(B) 20=130(	B) 21=14	4(B) 22=4	71(B)				
Uniform Loads (plf) Vert: 1-7=-691, Horz: 1-14=28	8-14=-20 7-8=10	n increase = 1.00, 1 late increase = 1.00							
Concentrated Loads (lb) Vert: 10=181(B 7) Dead + 0.6 MWERS Wil	) ) 9=164(B) 15=-966(B) 16=14 nd (Neg. Internal) Right: Lum	42(B) 17=142(B) 18=142(B) 19=142(B) 20=142( ber Increase=1 60, Plate Increase=1 60	B) 21=15	6(B) 22=4	82(B)				
Uniform Loads (plf) Vert: 1-7=-691, Horz: 1-14=-10	8-14=-20 , 7-8=-28								
Concentrated Loads (lb) Vert: 10=181(B 8) Dead + 0.6 MWFRS Win	) ) 9=164(B) 15=-966(B) 16=14 nd (Pos. Internal) 1st Parallel	42(B) 17=142(B) 18=142(B) 19=142(B) 20=142( : Lumber Increase=1.60, Plate Increase=1.60	B) 21=15	6(B) 22=4	82(B)				
Uniform Loads (plf) Vert: 1-7=-671, Horz: 1-14=14,	8-14=-8 7-8=20								
Concentrated Loads (lb) Vert: 10=169(B 9) Dead + 0.6 MWFRS Win	) ) 9=152(B) 15=-975(B) 16=13 nd (Pos. Internal) 2nd Paralle	30(B) 17=130(B) 18=130(B) 19=130(B) 20=130( l: Lumber Increase=1.60, Plate Increase=1.60	B) 21=14	4(B) 22=4	71(B)				
Uniform Loads (plf) Vert: 1-7=-671, Horz: 1-14=-20	8-14=-8 , 7-8=-14								
Concentrated Loads (lb) Vert: 10=169(B 10) Dead + 0.6 MWFRS W	) ) 9=152(B) 15=-975(B) 16=13 /ind (Pos. Internal) 3rd Paralle	30(B) 17=130(B) 18=130(B) 19=130(B) 20=130( el: Lumber Increase=1.60, Plate Increase=1.60	B) 21=14	4(B) 22=4	-71(B)				
Uniform Loads (plf) Vert: 1-7=-684 Horz: 1-14=7,	4, 8-14=-8 7-8=15								
Concentrated Loads (II Vert: 10=169( 11) Dead + 0.6 MWFRS W	b) B) 9=152(B) 15=-975(B) 16=′ /ind (Pos. Internal) 4th Paralle	130(B) 17=130(B) 18=130(B) 19=130(B) 20=130 l: Lumber Increase=1.60, Plate Increase=1.60	)(B) 21=1	44(B) 22=	:471(B)				
Uniform Loads (plf) Vert: 1-7=-684 Horz: 1-14=-1	1, 8-14=-8 5, 7-8=-7								
Vert: 10=169(I 12) Dead + 0.6 MWFRS W Uniform Loads (plf)	b) B) 9=152(B) 15=-975(B) 16=′ /ind (Neg. Internal) 1st Paralle	130(B) 17=130(B) 18=130(B) 19=130(B) 20=130 el: Lumber Increase=1.60, Plate Increase=1.60	)(B) 21=1	44(B) 22=	-471(B)				
Vert: 1-7=-691 Horz: 1-14=26 Concentrated Loads (II	l, 8-14=-20 5, 7-8=8 b)								
Vert: 10=181(	B) 9=164(B) 15=-966(B) 16= <sup>-</sup>	142(B) 17=142(B) 18=142(B) 19=142(B) 20=142	2(B) 21=1	56(B) 22=	-482(B)				
Continued on page 3									



Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO
2684039	GR2	FLAT GIRDER	1	2	145972602
Builders FirstSource (Valley	Center) Valley Center K	S - 67147	8.	430 s Apr	Job Reference (optional) 20 2021 MiTek Industries Inc. Wed May 5 08:58:05 2021 Page 3
		l (1977)	D:WV5xOZ45cNK	4PQ2HmS	Su_xyyPFt9-B2S7qk6BGzPkQiVS5e95Y928ybtsQ54bsIDtOLzJbiG
LOAD CASE(S) Standard 13) Dead + 0.6 MWFRS W Uniform Loads (plf) Vert: 1-7=-691 Horz: 1-14=-8. Concentrated Loads (ll	l /ind (Neg. Internal) 2nd Paral , 8-14–-20 , 7-8–-26 ))	iel: Lumber Increase=1.60, Plate Increas	e=1.60		
Vert: 10=181( 14) Dead: Lumber Increase Uniform Loads (plf) Vert: 1-7=-720 Concentrated Loads (ll	9) 9=164(B) 15=-966(B) 16≕ e=0.90, Plate Increase=0.90 0, 8-14=-20 0)	142(B) 17=142(B) 18=142(B) 19=142(B) Plt. metal=0.90	20=142(B) 21=1	56(B) 22=	-482(B)
Vert: 10=-289 15) Dead + 0.75 Roof Live Uniform Loads (plf) Vert: 1-7=-736 Horz: 1-14-21	(B) 9=-289(B) 15=-1214(B) 1 (bal.) + 0.75(0.6 MWFRS Wi 5, 8-14=-20 7-8=7	6=-297(B) 17=-297(B) 18=-298(B) 19=-2 nd (Neg. Int) Left): Lumber Increase=1.6	98(B) 20=-298(B 0, Plate Increase	) 21=-289 =1.60	(B) 22=-787(B)
Concentrated Loads (II Vert: 10=101( 16) Dead + 0.75 Roof Live Uniform Loads (plf) Vert: 1-7=-736 Horz: 1-14=-7	, 7-5-7 b) B) 9=88(B) 15=-966(B) 16=7' (bal.) + 0.75(0.6 MWFRS Wi 6, 8-14=-20 , 7-8=-21	1(B) 17=71(B) 18=71(B) 19=71(B) 20=71 nd (Neg. Int) Right): Lumber Increase=1.	(B) 21=82(B) 22 60, Plate Increas	=263(B) se=1.60	
Concentrated Loads (II Vert: 10=101(I 17) Dead + 0.75 Roof Live Uniform Loads (plf) Vert: 1-7=-736	b) B) 9=88(B) 15=-966(B) 16=7 (bal.) + 0.75(0.6 MWFRS Wi 6, 8-14=-20	1(B) 17=71(B) 18=71(B) 19=71(B) 20=71 nd (Neg. Int) 1st Parallel): Lumber Increa	(B) 21=82(B) 22 ase=1.60, Plate I	=263(B) ncrease=	1.60
Hol2. 1-14-19 Concentrated Loads (II Vert: 10=101(I 18) Dead + 0.75 Roof Live Uniform Loads (plf) Vert: 1-7=-736	, 7-96 5) B) 9=88(B) 15=-966(B) 16=7 (bal.) + 0.75(0.6 MWFRS Wi 5, 8-14=-20	1(B) 17=71(B) 18=71(B) 19=71(B) 20=71 nd (Neg. Int) 2nd Parallel): Lumber Incre	(B) 21=82(B) 22 ase=1.60, Plate	=263(B) Increase=	<b>:1.6</b> 0
Horz: 1-14=-6 Concentrated Loads (II Vert: 10=101(I 19) Dead + 0.6 MWFRS W Uniform Loads (plf) Vert: 1-7=-712	, 7-8=-19 5) B) 9=88(B) 15=-966(B) 16=7 <sup>;</sup> Iind Min. Left: Lumber Increa: 2, 8-14=-8	1(B) 17=71(B) 18=71(B) 19=71(B) 20=71 se=1.60, Plate Increase=1.60	(B) 21=82(B) 22	=263(B)	
Horz: 1-14=16 Concentrated Loads (II Vert: 10=123(I 20) Dead + 0.6 MWFRS W Uniform Loads (plf)	5 5) B) 9=106(B) 15=-975(B) 16=4 Ind Min. Right: Lumber Incre	35(B) 17=85(B) 18=85(B) 19=85(B) 20=8 ase=1.60, Plate Increase=1.60	5(B) 21=98(B) 2	2=341(B)	
Vert: 1-7=-712 Horz: 7-8=-16 Concentrated Loads (II Vert: 10=123(I 21) Reversal: Dead + 0.6 M	/, 8-14=-8 b) B) 9=106(B) 15=-975(B) 16≓ł //WFRS Wind (Pos. Internal)	85(B) 17=85(B) 18=85(B) 19=85(B) 20=8 Left: Lumber Increase=1.60, Plate Increa	5(B) 21=98(B) 2 ase=1.60	2=341(B)	
Uniform Loads (pii) Vert: 1-7=-671 Horz: 1-14=17 Concentrated Loads (It Vert: 10=-210) 22 - 743(P)	, 8-14=-8 ', 7-8=22 o) (B) 9=-194(B) 15=-1327(B) 1	6=-252(B) 17=-252(B) 18=-252(B) 19=-2	52(B) 20=-252(B	) 21=-219	(B)
22) Reversal: Dead + 0.6 M Uniform Loads (plf) Vert: 1-7=-671 Horz: 1-14=-2: Concentrated Loads (ll	MWFRS Wind (Pos. Internal) , 8-14=-8 2, 7-8=-17 o)	Right: Lumber Increase=1.60, Plate Incre	ease=1.60		
Vert: 10=-210 22=-742(B) 23) Reversal: Dead + 0.6 M Uniform Loads (plf) Vert: 1-7=-691 Horz: 1-14=28	(B) 9=-194(B) 15=-1327(B) 1 //WFRS Wind (Neg. Internal) , 8-14=-20 , 7-8=10	6=-252(B) 17=-252(B) 18=-252(B) 19=-2:	52(B) 20=-252(B ase=1.60	) 21=-219	(B)
Vert: 10=-198( 22=-731(B) 24) Reversal: Dead + 0.6 M Uniform Loads (plf) Vert: 1-7=-691	, B) 9=-182(B) 15=-1317(B) 1 MWFRS Wind (Neg. Internal) , 8-14=-20	6=-240(B) 17=-240(B) 18=-241(B) 19=-2 Right: Lumber Increase=1.60, Plate Incr	41(B) 20=-241(B ease=1.60	) 21=-207	(B)
Horz: 1-14=-1 Concentrated Loads (II Vert: 10=-198 22=-731(B)	u, /-७=-2੪ ɔ) B) 9=-182(B) 15=-1317(B) 1⊧	6=-240(B) 17=-240(B) 18=-241(B) 19=-2	41(B) 20=-241(B	) 21=-207	(B)

# Continued on page 4



Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO
2684039	GR2	FLAT GIRDER	1	2	145972602
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8	430 s Apr	Job Reference (optional) 20 2021 MiTek Industries, Inc. Wed May 5 08:58:05 2021 Page 4
2684039         Builders FirstSource (Valley         LOAD CASE(S) Standard         25) Reversal: Dead + 0.6 M         Uniform Loads (plf)         Vert: 1-7=-671         Horz: 1-14=14         Concentrated Loads (lt)         Vert: 10=-210(         26) Reversal: Dead + 0.6 M         Uniform Loads (plf)         Vert: 1-7=-671         Horz: 1-14=-2(         Concentrated Loads (plf)         Vert: 10=-210(         27) Reversal: Dead + 0.6 M         Uniform Loads (plf)         Vert: 1-7=-684         Horz: 1-14=-7.         Concentrated Loads (lt)         Vert: 10=-210(         28) Reversal: Dead + 0.6 N         Uniform Loads (plf)         Vert: 1-7=-684         Horz: 1-14=-7.         Concentrated Loads (lt)         Vert: 10=-210(         29) Reversal: Dead + 0.6 N         Uniform Loads (plf)         Vert: 1-7=-684         Horz: 1-14=-26         Concentrated Loads (lt)         Vert: 1-7=-691         Horz: 1-14=26         Concentrated Loads (plf)         Vert: 10=-198(         30) Reversal: Dead + 0.6 N         Uniform Loads (plf)	GR2 Center), Valley Center, K //WFRS Wind (Pos. Internal) , 8-14=-8 , 7-8=20 ) B) 9=-194(B) 15=-1327(B) 1 //WFRS Wind (Pos. Internal) , 8-14=-8 0, 7-8=-14 ) B) 9=-194(B) 15=-1327(B) 1 //WFRS Wind (Pos. Internal) , 8-14=-8 7-8=15 ) B) 9=-194(B) 15=-1327(B) 1 //WFRS Wind (Neg. Internal) , 8-14=-8 5, 7-8=-7 ) B) 9=-194(B) 15=-1327(B) 1 //WFRS Wind (Neg. Internal) , 8-14=-20 , 7-8=-26	FLAT GIRDER S - 67147, II 1st Parallel: Lumber Increase=1.60, Plate 6=-252(B) 17=-252(B) 18=-252(B) 19=-25 2nd Parallel: Lumber Increase=1.60, Plat 6=-252(B) 17=-252(B) 18=-252(B) 19=-25 3rd Parallel: Lumber Increase=1.60, Plat 6=-252(B) 17=-252(B) 18=-252(B) 19=-25 4th Parallel: Lumber Increase=1.60, Plat 6=-252(B) 17=-252(B) 18=-252(B) 19=-25 4th Parallel: Lumber Increase=1.60, Plat 6=-252(B) 17=-252(B) 18=-252(B) 19=-25 1st Parallel: Lumber Increase=1.60, Plat 6=-240(B) 17=-240(B) 18=-241(B) 19=-24 2nd Parallel: Lumber Increase=1.60, Plat	1 8 2:WV5xOZ45cNH e Increase=1.60 52(B) 20=-252(E te Increase=1.60 52(B) 20=-252(E e Increase=1.60 52(B) 20=-252(E e Increase=1.60 52(B) 20=-252(E e Increase=1.60 52(B) 20=-252(E 41(B) 20=-241(E te Increase=1.60 41(B) 20=-241(E) 41(B) 20=-241(E) 4	<b>2</b> (4PQ2HmS (4PQ2HmS ) 3) 21=-219 3) 21=-219 3) 21=-219 3) 21=-219 3) 21=-219 3) 21=-219 3) 21=-219 3) 21=-219 3) 21=-219 3) 21=-219	Job Reference (optional) 20 2021 MiTek Industries, Inc. Wed May 5 08:58:05 2021 Page 4 Su_xyyPFt9-B2S7qk6BGzPkQiVS5e95Y928ybtsQ54bsIDtOLzJbiG 0(B) 22=-742(B) 0(B) 22=-742(B) 0(B) 22=-742(B) 0(B) 22=-742(B) 0(B) 22=-742(B)
Concentrated Loads (lt Vert: 10=-198( 31) Reversal: Dead + 0.75 Uniform Loads (plf) Vert: 1-7=-736 Horz: 1-14=21 Concentrated Loads (lt	) B) 9=-182(B) 15=-1317(B) 1 Roof Live (bal.) + 0.75(0.6 M ;, 8-14=-20 , 7-8=7 ) D) 0 424(D) 45 4504(D) 1	6=-240(B) 17=-240(B) 18=-241(B) 19=-24 IWFRS Wind (Neg. Int) Left): Lumber Inc	41(B) 20=-241(E rease=1.60, Pla	3) 21=-207 te Increas	7(B) 22=-731(B) e=1.60
Vert: 10=-436 32) Reversal: Dead + 0.75 Uniform Loads (plf) Vert: 1-7=-736 Horz: 1-14=-7, Concentrated Loads (lt Vert: 10=-436( 22=-1240(B)	B) 9=-424(B) 15=-1594(B) 1 Roof Live (bal.) + 0.75(0.6 M ;, 8-14=-20 ,7-8=-21 )) B) 9=-424(B) 15=-1594(B) 1	6=-468(B) 17=-468(B) 18=-469(B) 19=-46 IWFRS Wind (Neg. Int) Right): Lumber In 6=-468(B) 17=-468(B) 18=-469(B) 19=-46	59(B) 20=-469(E crease=1.60, Pl 69(B) 20=-469(E	3) 21=-443 late Increa 3) 21=-443	s(B) 22=-1240(B) ase=1.60 B(B)
33) Reversal: Dead + 0.75 Increase=1.60 Uniform Loads (plf) Vert: 1-7=-736 Horz: 1-14=19 Concentrated Loads (lt	Roof Live (bal.) + 0.75(0.6 M ;, 8-14=-20 , 7-8=6 )	IWFRS Wind (Neg. Int) 1st Parallel): Lum	ber Increase=1	.60, Plate	
Vert: 10=-436( 22=-1240(B) 34) Reversal: Dead + 0.75 Increase=1.60 Uniform Loads (plf) Vert: 1-7=-736 Horz: 1-14=-6,	B) 9=-424(B) 15=-1594(B) 1 Roof Live (bal.) + 0.75(0.6 M 5, 8-14=-20 7-8=-19	6=-468(B) 17=-468(B) 18=-469(B) 19=-46	69(B) 20=-469(E nber Increase=1	3) 21=-443 I.60, Plate	3(B)
Concentrated Loads (lt Vert: 10=-436( 22=-1240(B) 35) Reversal: Dead + 0.6 M Uniform Loads (plf) Vert: 1-7=-712 Horz: 1-14=16 Concentrated Loads ( <sup>lt</sup>	) B) 9=-424(B) 15=-1594(B) 1 //WFRS Wind Min. Left: Lum , 8-14=-8	6=-468(B) 17=-468(B) 18=-469(B) 19=-46 ber Increase=1.60, Plate Increase=1.60	69(B) 20=-469(E	3) 21=-443	B(B)
Vert: 10=-164( 22=-612(B) 36) Reversal: Dead + 0.6 M	// B) 9=-148(B) 15=-1254(B) 1 //WFRS Wind Min. Right: Lur	6=-207(B) 17=-207(B) 18=-207(B) 19=-20 nber Increase=1.60, Plate Increase=1.60	07(B) 20=-207(E	3) 21=-173	3(B)

Continued on page 5



Job	Truss	Truss Type	Qty	Ply	ROESER/ROANOKE LOT 1475/MO	
						145972602
2684039	GR2	FLAT GIRDER	1	2		
				<b>_</b>	Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.	430 s Apr	20 2021 MiTek Industries, Inc. Wed May 5 08:58:05 2021	Page 5

ID:WV5xOZ45cNK4PQ2HmSu\_xyyPFt9-B2S7qk6BGzPkQiVS5e95Y928ybtsQ54bsIDtOLzJbiG

LOAD CASE(S) Standard

Uniform Loads (plf) Vert: 1-7=-712, 8-14=-8 Horz: 7-8=-16

Concentrated Loads (lb)

Vert: 10=-164(B) 9=-148(B) 15=-1254(B) 16=-207(B) 17=-207(B) 18=-207(B) 19=-207(B) 20=-207(B) 21=-173(B) 22=-612(B)





				2-0-0
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 0.30	Vert(LL) -0.00 5 >999 240 MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 4-5 >999 180
BCLL	0.0	Rep Stress Incr YES	WB 0.02	Horz(CT) -0.00 3 n/a n/a
BCDL	10.0	Code IRC2018/TPI2014	Matrix-MP	Weight: 10 lb FT = 20%

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 or 2-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical Max Horz 5=51(LC 9) Max Uplift 5=-92(LC 8), 3=-16(LC 1), 4=-13(LC 12) Max Grav 5=308(LC 1), 3=24(LC 8), 4=37(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-290/243

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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 1-11-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

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



SCOTT M. SEVIER PE-2001018807 FF-SSIONAL ENGINE May 6,2021



LOADING TCLL TCDL	<b>G</b> (psf) 25.0 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	<b>CSI.</b> TC 0.30 BC 0.03	DEFL. Vert(LL) Vert(CT)	in -0.00 -0.00	(loc) 5 4-5	l/defl >999 >999	L/d 240 180	PLATES         GRIP           MT20         197/144	
BCLL BCDL	0.0 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.02 Matrix-MP	Horz(CT)	-0.00	3	n/a	n/a	Weight: 10 lb FT = 20%	

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

BRACING-TOP CHORD

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

REACTIONS. 5=0-5-8, 3=Mechanical, 4=Mechanical (size) Max Horz 5=56(LC 11) Max Uplift 5=-88(LC 8), 3=-24(LC 1), 4=-19(LC 12) Max Grav 5=308(LC 1), 3=27(LC 8), 4=35(LC 3)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-5=-291/234

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

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

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

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







LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.30 BC 0.01 WB 0.02 Matrix-MP	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         -0.00         5         >999         240           Vert(CT)         -0.00         5         >999         180           Horz(CT)         -0.00         3         n/a         n/a	PLATES         GRIP           MT20         197/144           Weight: 7 lb         FT = 20%
LUMBER-			BRACING-	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 1-2-7 oc purlins,
BOT CHORD	2x4 SPF No.2		except end verticals.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

Max Horz 5=51(LC 11) Max Uplift 5=-109(LC 8), 3=-106(LC 1), 4=-30(LC 8) Max Grav 5=334(LC 1), 3=66(LC 8), 4=21(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-323/267

TOP CHORD

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

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.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=109, 3=106.

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.







LUMBER-
---------

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

BRACING-TOP CHORD

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

REACTIONS. (size) 5=0-5-8, 3=Mechanical, 4=Mechanical Max Horz 5=82(LC 12) Max Uplift 5=-74(LC 8), 3=-52(LC 12), 4=-5(LC 12) Max Grav 5=355(LC 1), 3=93(LC 1), 4=77(LC 3)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-5=-316/229

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate

grip DOL=1.60 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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







REACTIONS. (size) 7=0-3-8, 4=Mechanical, 5=Mechanical Max Horz 7=274(LC 1), 4=-274(LC 1) Max Uplift 7=-145(LC 12), 5=-14(LC 12) Max Grav 7=578(LC 1), 5=60(LC 3)

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

TOP CHORD 2-7=-521/316, 2-3=-369/177, 3-4=-302/230

BOT CHORD	6-7=-274/41
WEBS	2-6=-43/283

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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-7-4 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.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=145.

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.







		2-10-0	2-10-	-0	
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	CSI. TC 0.11 BC 0.33 WB 0.19 Matrix-MP	DEFL.         in           Vert(LL)         -0.01           Vert(CT)         -0.02           Horz(CT)         0.00	(loc) l/defl L/ 7-8 >999 24 7-8 >999 18 6 n/a n/	d PLATES GRIP 0 MT20 197/144 0 a Weight: 29 lb FT = 20%

```
LUMBER-
```

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

WEBS 2x4 SPF No.2

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. 8=0-3-8, 6=Mechanical (size) Max Horz 8=130(LC 5) Max Uplift 8=-141(LC 8), 6=-176(LC 8) Max Grav 8=797(LC 1), 6=790(LC 1)

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

TOP CHORD 1-8=-617/120, 1-2=-824/146

BOT CHORD 6-7=-173/739

WEBS 1-7=-121/775, 2-7=-112/657, 2-6=-931/218

#### 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=141.6=176.
- 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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-8-12 from the left end to 3-8-12 to connect truss(es) to front face of bottom chord.

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

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: 1-3=-70, 3-4=-20, 5-8=-20 Concentrated Loads (lb)









BCDL	10.	0	Code IRC2018/TPI2014
LUMBER	-		
TOP CHC	DRD	2x4 SP	PF No.2
DOT OUR		~ ~ ~ ~ ~	

BOT CHORD WEBS

25.0

10.0

0.0

LOADING (psf)

TCLL

TCDL

BCLL

BCDL

2x6 SPF No.2 2x4 SPF No.2 BRACING-TOP CHORD

LUS24

4-6-0 4-6-0

DEFL.

Vert(LL)

Vert(CT)

Horz(CT)

Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

PLATES

Weight: 21 lb

MT20

GRIP

197/144

FT = 20%

4x6 =

l/defl

>999

>782

n/a

in (loc)

5-6

5-6

5

-0.03

-0.06

-0.00

4

L/d

240

180

n/a

REACTIONS. (size) 6=0-3-8, 5=Mechanical Max Horz 6=109(LC 5) Max Uplift 6=-159(LC 8), 5=-131(LC 8) Max Grav 6=909(LC 1), 5=579(LC 1)

SPACING-

Plate Grip DOL

Rep Stress Incr

Lumber DOL

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; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

LUS24

CSI.

TC

BC

WB

Matrix-MP

0.36

0.71

0.01

6 2x4 ||

2-0-0

1.15

1.15

NO

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) 6=159, 5=131.
- 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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-6-12 from the left end to 2-6-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- 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: 1-2=-70, 2-3=-20, 4-6=-20

Concentrated Loads (lb) Vert: 7=-558(B) 8=-552(B)









LOADING	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 0.27	Vert(LL) 0.03 3-4 >999 240 MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.04 3-4 >999 180
BCLL	0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.04 2 n/a n/a
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS	Weight: 12 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

WEBS 2x4 SPF No.2

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

Max Horz 4=68(LC 9)

Max Uplift 4=-14(LC 12), 2=-76(LC 12) Max Grav 4=193(LC 1), 2=141(LC 1), 3=81(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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate

grip DOL=1.60

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

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.





			-	00		
LOADING	G (psf)	<b>SPACING-</b> 2-0-0	CSI.	DEFL. in	(loc) l/defl L/d	PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.29	Vert(LL) 0.03	6 >999 240	MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.16	Vert(CT) -0.03	6 >999 180	
BCLL	0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.01	5 n/a n/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS			Weight: 16 lb FT = 20%

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

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

Max Horz 8=90(LC 12) Max Uplift 8=-74(LC 8), 4=-53(LC 12), 5=-12(LC 12)

Max Grav 8=372(LC 1), 4=107(LC 1), 5=67(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-8=-327/235

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 4-5-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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, 4, 5.

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

referenced standard ANSI/TPI 1.

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.



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



BRACING-TOP CHORD BOT CHORD

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



				2-3-8	5		0-1-9		
LOADING TCLL	(psf) 25.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.30	DEFL. in Vert(LL) -0.00	(loc) 7	l/defl >999	L/d 240	PLATES MT20	<b>GRIP</b> 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00	7	>999	180		
BCLL BCDL	0.0 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.00 Matrix-MR	Horz(CT) -0.00	5	n/a	n/a	Weight: 12 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 2-5-1 oc purlins, except end verticals. Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 4=Mechanical, 5=Mechanical Max Horz 7=63(LC 9) Max Uplift 7=-75(LC 8), 4=-19(LC 12), 5=-7(LC 9) Max Grav 7=328(LC 1), 4=41(LC 1), 5=66(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-7=-296/227

#### 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) -1-11-0 to 1-0-11, Interior(1) 1-0-11 to 2-4-5 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate

grip DOL=1.60 2) 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) 7, 4, 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.







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

BRACING-TOP CHORD

BOT CHORD

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

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

Max Horz 4=42(LC 9) Max Uplift 2=-38(LC 12), 3=-2(LC 9)

Max Grav 4=88(LC 1), 2=65(LC 1), 3=38(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) 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.







BRACING-

TOP CHORD

BOT CHORD

LUMBER-

WEBS

TOP CHORD

BOT CHORD

REACTIONS.

Max Uplift 2=-25(LC 12), 3=-6(LC 9) Max Grav 4=53(LC 1), 2=39(LC 1), 3=23(LC 3)

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

4=0-3-8, 2=Mechanical, 3=Mechanical

#### 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
- 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.

2x4 SPF No.2

2x4 SPF No.2

2x4 SPF No.2

(size) 4=0-3-8, 2= Max Horz 4=33(LC 9)

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



Structural wood sheathing directly applied or 1-4-0 oc purlins,

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

except end verticals.





LOADING ( TCLL 2 TCDL 1	(psf) 25.0 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	CSI. TC 0.30 BC 0.07	DEFL. Vert(LL) Vert(CT)	in 0.00 0.00	(loc) 4-5 4-5	l/defl >999 >999	L/d 240 180	PLATES MT20	<b>GRIP</b> 197/144
BCDL 1	0.0 10.0	Code IRC2018/TPI2014	Matrix-MR	Horz(CT)	-0.01	3	n/a	n/a	Weight: 8 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 2-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

- REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical Max Horz 5=59(LC 9) Max Uplift 5=-86(LC 8), 3=-20(LC 12), 4=-3(LC 1) Max Grav 5=308(LC 1), 3=5(LC 22), 4=29(LC 3)
- FORCES. (lb) Max. Comp./Max. Ten. All forces 250 (lb) or less except when shown. TOP CHORD 2-5=-269/231

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 1-11-14 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate
- grip DOL=1.60 2) 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.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 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.







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 or 3-2-7 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. 5=0-5-8, 3=Mechanical, 4=Mechanical (size) Max Horz 5=72(LC 9) Max Uplift 5=-77(LC 8), 3=-33(LC 12), 4=-10(LC 12) Max Grav 5=329(LC 1), 3=55(LC 1), 4=61(LC 3)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-5=-299/225

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-1-11 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate

grip DOL=1.60 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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







	J-1-12	
Γ	5-1-12	

LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.45 BC 0.20 WB 0.00 Matrix-AS	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         -0.02         4-5         >999         240           Vert(CT)         -0.04         4-5         >999         180           Horz(CT)         0.00         n/a         n/a	PLATES         GRIP           MT20         197/144           Weight: 16 lb         FT = 20%
LUMBER-			BRACING-	

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

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

TOP CHORD BOT CHORD

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

REACTIONS. (size) 5=0-5-8, 3=Mechanical, 4=Mechanical Max Horz 5=274(LC 1), 3=-274(LC 1) Max Uplift 5=-167(LC 12)

Max Grav 5=562(LC 1), 4=81(LC 3)

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

TOP CHORD 2-5=-490/356, 2-3=-385/291

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) 5=167.
- 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.







LOADING	(psf)	SPACING- 2-0-	CSI.	DEFL. in (loc)	) l/defl L/d	PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.1	5 TC 0.34	Vert(LL) -0.02 6-7	/ >999 240	MT20 197/144
TCDL	10.0	Lumber DOL 1.1	BC 0.22	Vert(CT) -0.04 6-7	/ >999 180	
BCLL	0.0	Rep Stress Incr NO	WB 0.06	Horz(CT) 0.00 6	6 n/a n/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-MP			Weight: 33 lb FT = 20%

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

2x4 SPF No.2

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. 6=Mechanical, 8=0-5-8 (size) Max Horz 8=142(LC 5) Max Uplift 6=-75(LC 8), 8=-113(LC 8) Max Grav 6=283(LC 1), 8=464(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-3=-271/42, 2-8=-466/110

TOP CHORD

WEBS 4-6=-275/102

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) Provide adequate drainage to prevent water ponding.

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

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

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=113.

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

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

8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.

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

#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-8=-20 Concentrated Loads (lb)

Vert: 7=14(B)







		$\vdash$			4-2-8 4-2-8				7-1-12		
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TPI2	2-0-0 1.15 1.15 YES 014	CSI. TC BC WB Matrix	0.29 0.52 0.06 <-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.13 -0.26 -0.00	(loc) 5-6 5-6 5	l/defl >621 >311 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 32 lb	<b>GRIP</b> 197/144 FT = 20%

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, and 2-0-0 oc purlins: 3-4. Rigid ceiling directly applied.

REACTIONS. 5=Mechanical, 6=0-5-8 (size) Max Horz 6=121(LC 9) Max Uplift 5=-71(LC 9), 6=-108(LC 8) Max Grav 5=287(LC 1), 6=475(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-6=-323/306

# 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 4-2-8, Exterior(2E) 4-2-8 to 7-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) 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) 5 except (jt=lb) 6 = 108

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.







		3-6-14				3-6-1	2 4		
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IPC2018/TPI2014	CSI. TC 0.49 BC 0.10 WB 0.05 Matrix AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.00 -0.01 -0.00	(loc) 6-7 6-7 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 197/144
			BRACING.					Troight. 00 lb	11-2070

TOP CHORD

BOT CHORD

2-0-0 oc purlins: 3-4.

Rigid ceiling directly applied.

# LUMBER-

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

WEBS 2x4 SPF No.2

REACTIONS. 5=Mechanical, 7=0-5-8 (size) Max Horz 7=158(LC 9) Max Uplift 5=-66(LC 9), 7=-107(LC 12) Max Grav 5=287(LC 1), 7=475(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-7=-448/271

BOT CHORD 6-7=-282/191

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 6-2-8, Exterior(2E) 6-2-8 to 7-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) 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) 5 except (jt=lb) 7=107

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.



Structural wood sheathing directly applied, except end verticals, and

MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



BRACING-TOP CHORD

BOT CHORD

LUMBER-	
---------	--

BCDL

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

10.0

WEBS 2x4 SPF No.2

REACTIONS. 7=0-5-8, 5=Mechanical (size) Max Horz 7=129(LC 12) Max Uplift 7=-85(LC 12), 5=-88(LC 12) Max Grav 7=478(LC 1), 5=295(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-7=-396/233

Code IRC2018/TPI2014

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 7-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

Matrix-AS

- 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) 7, 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Weight: 31 lb

Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

FT = 20%





	6-0-0 6-0-0	
LOADING (psf)         SPACING-         2-0-0           TCLL         25.0         Plate Grip DOL         1.15           TCDL         10.0         Lumber DOL         1.15           BCLL         0.0         Rep Stress Incr         YES           BCDL         10.0         Code IRC2018/TPI2014	CSI.         DEFL.         in           TC         0.44         Vert(LL)         -0.13           BC         0.52         Vert(CT)         -0.26           WB         0.15         Horz(CT)         -0.00           Matrix-AS         Image: Comparison of the second sec	in (loc) I/defl L/d 3 5-6 >621 240 6 5-6 >311 180 0 5 n/a n/a Weight: 34 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

2-0-0 oc purlins: 3-4.

Rigid ceiling directly applied.

# LUMBER-

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

2x4 SPF No.2

REACTIONS. 5=Mechanical, 6=0-5-8 (size) Max Horz 6=154(LC 9) Max Uplift 5=-67(LC 9), 6=-108(LC 12) Max Grav 5=287(LC 1), 6=475(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-6=-375/333

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 6-0-0, Exterior(2E) 6-0-0 to 7-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) 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) 5 except (jt=lb) 6 = 108

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.



Structural wood sheathing directly applied, except end verticals, and





	l	4-0-0	) )	7-1-12 3-1-12	I
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNOCodeIRC2018/TPI2014	CSI. TC 0.34 BC 0.80 WB 0.07 Matrix-MP	DEFL.         in           Vert(LL)         -0.20           Vert(CT)         -0.40           Horz(CT)         0.00	(loc) l/defl L/d 5-6 >420 240 5-6 >207 180 5 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 31 lb         FT = 20%

BRACING-

TOP CHORD

BOT CHORD

# LUMBER-

TOP CHORD 2x4 SPF No 2 2x4 SPF 1650F 1.5E BOT CHORD WEBS 2x4 SPF No.2

REACTIONS. 5=Mechanical, 6=0-5-8 (size) Max Horz 6=117(LC 26)

Max Uplift 5=-165(LC 5), 6=-162(LC 8)

Max Grav 5=421(LC 1), 6=555(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-6=-318/141

# 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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=165, 6=162,

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

- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 146 lb down and 99 lb up at
- 4-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15. Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-6=-20 Concentrated Loads (lb) Vert: 3=-23(F) 7=-26(F) 8=-146(F) 9=-19(F)



Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.

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





BOT CHORD

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

Structural wood sheathing directly applied or 5-9-11 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 5-9-11.

(lb) - Max Horz 1=229(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 6=-146(LC 12), 7=-130(LC 12) Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6, 7

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

TOP CHORD 1-2=-432/432, 2-3=-312/318

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) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 5-7-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Gable requires continuous bottom chord bearing.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 6=146, 7=130.

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.







- 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.



Milek<sup>°</sup>

16023 Swingley Ridge Rd Chesterfield, MO 63017



- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



NITEK\* 16023 Swingley Ridge Rd Chesterfield, MO 63017



#### 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 6-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Gable requires continuous bottom chord bearing.

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4 except (jt=lb) 5=133, 6=162.
- 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.







BRACING-

TOP CHORD

BOT CHORD

#### LUMBER-

TOP CHORD2x4 SPF No.2BOT CHORD2x4 SPF No.2OTHERS2x4 SPF No.2

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

**REACTIONS.** All bearings 9-2-6.

(lb) - Max Horz 1=170(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7, 8, 6 except 9=-159(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 9, 8 except 6=276(LC 26)

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

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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 4-1-11, Exterior(2R) 4-1-11 to 7-1-11, Interior(1) 7-1-11 to 8-10-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) Gable requires continuous bottom chord bearing.

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 7, 8, 6 except (jt=lb) 9=159.

7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 6.

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.



nt 16023 Swingley Ridge Rd Chesterfield, MO 63017


May 6,2021





# REACTIONS.

(size) 1=3-6-5, 4=3-6-5, 5=3-6-5 Max Horz 1=131(LC 9) Max Uplift 1=-49(LC 10), 4=-52(LC 9), 5=-133(LC 12)

Max Grav 1=103(LC 9), 4=91(LC 19), 5=202(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-249/253

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) Gable requires continuous bottom chord bearing.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=133

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.









May 6,2021





Scale = 1:22.5



	0-0-8 1-8-2	3-10-5 2-2-4	<u>6-4-1</u> 2-5-11	7-5-3 1-1-2	<u>11-3-8</u> 3-10-5	<u>11-3</u> -12 0-0-4
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	<b>CSI.</b> TC 0.34 BC 0.34 WB 0.40 Matrix-MS	DEFL. in Vert(LL) -0.04 Vert(CT) -0.07 Horz(CT) 0.02	(loc) l/defl L/d 7 >999 240 7-8 >999 180 6 n/a n/a	PLATES C MT20 1 Weight: 44 lb	<b>SRIP</b> 97/144 FT = 20%

## LUMBER-

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

BRACING-TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 9=0-3-8 Max Horz 9=60(LC 7) Max Uplift 6=-112(LC 5), 9=-166(LC 4) Max Grav 6=419(LC 22), 9=596(LC 1)

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

TOP CHORD 2-3=-462/114, 3-4=-416/109

BOT CHORD 7-8=-284/1007, 6-7=-284/1007

WEBS 2-9=-624/175, 4-6=-956/260, 4-8=-652/190, 2-8=-87/515

#### 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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=112, 9=166.

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

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

9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

 Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 131 lb down and 86 lb up at 2-0-0 on top chord, and 29 lb down and 26 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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

# LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-70, 3-5=-70, 6-9=-20 Concentrated Loads (lb) Vert: 4=25(B) 10=25(B) 11=25(B) 12=25(B) 13=25(B) SCOTT M. SEVIER PE-2001018807

May 6,2021





LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.25 BC 0.05 WB 0.00 Matrix-MP	DEFL. ir Vert(LL) -0.00 Vert(CT) -0.00 Horz(CT) 0.00	n (loc) l/defl L/d ) 5-8 >999 240 ) 5-8 >999 180 ) 2 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 16 lb         FT = 20%
LUMBER- TOP CHORD 2x4 S BOT CHORD 2x4 S WEBS 2x4 S SLIDER Left 2	PF No.2 PF No.2 PF No.2 x6 SPF No.2 -t 2-6-0		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing din except end verticals. Rigid ceiling directly applied o	rectly applied or 2-11-8 oc purlins, or 10-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 2=0-3-8 Max Horz 2=86(LC 11) Max Uplift 5=-28(LC 9), 2=-87(LC 8)

Max Grav 5=81(LC 1), 2=306(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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 2-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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







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

TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. 7=Mechanical, 10=0-3-8 (size) Max Horz 10=224(LC 7) Max Uplift 7=-141(LC 8), 10=-151(LC 8) Max Grav 7=535(LC 1), 10=704(LC 1)

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

- 2-3=-618/87, 3-4=-511/79, 4-5=-606/104 TOP CHORD
- BOT CHORD 8-9=-241/935, 7-8=-100/513

WEBS 4-9=-514/164, 4-8=-447/149, 5-8=-4/324, 5-7=-635/184, 2-10=-711/143, 2-9=-24/571

#### 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) Provide adequate drainage to prevent water ponding.

3) 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.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=141, 10=151.

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

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

8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.

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

#### LOAD CASE(S) Standard

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

Vert: 1-3=-70. 3-4=-70. 4-6=-70. 7-10=-20







Max Grav 1=464(LC 1), 5=464(LC 1)

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

TOP CHORD 1-3=-531/200 BOT CHORD 1-6=-320/491, 5-6=-320/

BOT CHORD 1-6=-320/491, 5-6=-320/491 WEBS 3-5=-541/292

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

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

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

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 5=129.

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

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



May 6,2021





BOT CHORD 2-7=-260/461

WEBS 4-7=-332/236, 5-7=-268/607

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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 10-3-12 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=126, 2=129.

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

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



16023 Swingley Ridge Rd Chesterfield, MO 63017



1 1010 011	0010 (71,1)	[2.0 0 0,0 0 1]; [4.0 4 2,Eug	901	1								
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	0.06	7-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.12	7-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.04	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2	2014	Matrix	-AS						Weight: 44 lb	FT = 20%
LUMBER TOP CH	<b>R-</b> ORD 2x4 SF	PF No.2				BRACING- TOP CHOF	2D	Structu	ral wood	sheathing d	irectly applied, except	end verticals, and

 BOT CHORD
 2x4 SPF No.2
 2-0-0 oc purlins (6-0-0 max.): 4-5.

 WEBS
 2x4 SPF No.2
 BOT CHORD
 Rigid ceiling directly applied.

 SLIDER
 Left 2x6 SPF No.2 -t 2-6-0
 Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=Mechanical Max Horz 2=169(LC 11) Max Uplift 2=-133(LC 12), 6=-93(LC 9) Max Grav 2=611(LC 1), 6=452(LC 1)

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

TOP CHORD 2-4=-369/167

BOT CHORD 2-7=-215/324, 6-7=-216/317

WEBS 4-6=-564/309, 4-7=0/273

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 7-8-2, Exterior(2E) 7-8-2 to 10-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

5) 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) 6 except (jt=lb) 2=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.
- 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.







Plate Offsets (X,Y)	[2:0-7-8,Edge]						
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYES	CSI. TC 0.27 BC 0.20 WB 0.25	<b>DEFL.</b> ii Vert(LL) -0.07 Vert(CT) -0.03 Horz(CT) -0.07	n (loc) l/defl l 6-7 >999 3 6-7 >999 l 2 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS				Weight: 43 lb	FT = 20%
LUMBER- TOP CHORD 2x4 SP	PF No.2	II	BRACING- TOP CHORD	Structural woo	d sheathing dir	ectly applied, except	end verticals, and
WEBS 2x4 SP	2F No.2		BOT CHORD	Rigid ceiling di	rectly applied.	4-5.	

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x6 SPF No.2 -t 2-6-0

 REACTIONS.
 (size)
 2=0-3-8, 6=Mechanical

Max Horz 2=132(LC 11) Max Uplift 2=-126(LC 12), 6=-99(LC 9) Max Grav 2=611(LC 1), 6=452(LC 1)

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

TOP CHORD 2-4=-466/164

BOT CHORD 2-7=-248/433, 6-7=-249/428

WEBS 4-6=-465/244

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-8-2, Exterior(2R) 5-8-2 to 9-11-0, Interior(1) 9-11-0 to 10-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

5) 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) 6 except (jt=lb) 2=126.

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.



NiTek\* 16023 Swingley Ridge Rd Chesterfield, MO 63017



Scale = 1:21.0



	0-0-4 1-8-11	<u>5-2-12</u>	+ 5-11-5	10-5-8	<u>10</u> 76-1
	0-0-4 1-8-7	3-6-1	0-8-9	4-6-3	0-0-9
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNOCode IRC2018/TPI2014	CSI. TC 0.34 BC 0.28 WB 0.29 Matrix-MS	DEFL.         in         (loc)         I/defl           Vert(LL)         -0.03         7         >999           Vert(CT)         -0.04         7         >999           Horz(CT)         0.01         6         n/a	L/d PLATES 240 MT20 180 n/a Weight: 41 lb	<b>GRIP</b> 197/144 FT = 20%

```
LUMBER-
```

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

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5. Rigid ceiling directly applied or 10-0-0 oc bracing.

- REACTIONS. 6=Mechanical, 9=0-3-8 (size) Max Horz 9=62(LC 7) Max Uplift 6=-112(LC 5), 9=-157(LC 4) Max Grav 6=389(LC 44), 9=565(LC 1)
- FORCES. (Ib) Max. Comp./Max. Ten. All forces 250 (Ib) or less except when shown.

2-3=-444/109, 3-4=-390/102 TOP CHORD

BOT CHORD 7-8=-236/828, 6-7=-236/828

WEBS 2-9=-573/166, 2-8=-76/471, 4-6=-794/217, 4-8=-500/148

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; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate
- grip DOL=1.60 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=112.9=157.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 29 lb down and 26 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-70, 3-5=-70, 6-9=-20

Concentrated Loads (lb)

Vert: 5=17(F) 6=-6(F) 4=25(F) 10=25(F) 11=25(F) 12=25(F)







Scale = 1:19.2



		⊢ <u>1</u> · 1·	11-15 11-15	4-1-0 2-1-1				8-2-0 4-1-0	1	
LOADING (psf) TCLL 25.0 TCDL 10.0	SPACING- Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15	<b>CSI.</b> TC 0.34 BC 0.34	DEFL. Vert(LL) Vert(CT)	in -0.05 -0.10	(loc) 6-7 6-7	l/defl >999 >967	L/d 240 180	PLATES MT20	<b>GRIP</b> 197/144
BCLL 0.0 BCDL 10.0	Rep Stress Incr Code IRC2018/T	NO PI2014	WB 0.10 Matrix-MP	Horz(CT)	0.00	6	n/a	n/a	Weight: 33 lb	FT = 20%

# LUMBER-

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

BRACING-TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. 6=Mechanical, 8=0-3-8 (size) Max Horz 8=66(LC 7) Max Uplift 6=-81(LC 5), 8=-133(LC 4) Max Grav 6=300(LC 22), 8=481(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. 2-3=-370/74. 3-4=-311/69

TOP CHORD BOT CHORD 6-7=-134/399

WEBS

2-8=-504/143, 2-7=-36/376, 4-6=-431/134

#### 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; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=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.

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

9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 128 lb down and 86 lb up at 1-11-15 on top chord, and 25 lb down and 24 lb up at 1-11-15, and 4 lb down and 21 lb up at 2-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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

# LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-70, 3-5=-70, 6-8=-20 Concentrated Loads (lb)

Vert: 3=25(F) 9=25(F) 10=25(F)







	L	1-9-8	3-11-15		8-2-0		_
		1-9-8	2-2-7		4-2-1		
Plate Offsets (X,Y)-	- [2:0-1-8,0-0-1], [3:0-1-15	5,0-2-0]					
LOADING         (psf)           TCLL         25.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/T	2-0-0 1.15 1.15 YES PI2014	CSI. TC 0.69 BC 0.20 WB 0.19 Matrix-AS	DEFL.         ir           Vert(LL)         0.11           Vert(CT)         -0.16           Horz(CT)         0.14	n (loc) l/defl L/d 8 >867 240 5 8 >619 180 6 n/a n/a	<b>PLATES</b> MT20 Weight: 33 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 BOT CHORD 2x4 WEBS 2x4 SLIDER Left	SPF No.2 SPF No.2 SPF No.2 SPF No.2 t 2x6 SPF No.2 -t 1-9-1			BRACING- TOP CHORD BOT CHORD	Structural wood sheathing dir 2-0-0 oc purlins (6-0-0 max.): Rigid ceiling directly applied.	ectly applied, except 4-5.	end verticals, and
REACTIONS. ( Ma Ma	(size) 6=Mechanical, 2=0- ix Horz 2=77(LC 9) ix Uplift 6=-78(I C 9) 2=-11(	3-8 0(LC 8)					

Max Grav 6=345(LC 1), 2=511(LC 1)

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

3-10=-454/358, 3-4=-549/216 TOP CHORD

3-7=-300/545, 6-7=-304/538 BOT CHORD

WEBS 4-6=-563/302

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-11-15, Exterior(2E) 3-11-15 to 8-0-4 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) 6 except (jt=lb) 2=110
- 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.



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

**MiTek** 16023 Swingley Ridge Rd Chesterfield, MO 63017



Plate Offsets (X,)	) [2:0-3-8,Edge], [3:0-1-15,0	0-2-0]			1					1	
LOADING (psf) TCLL 25.0 TCDL 10.0	SPACING- Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15	CSI. TC BC	0.79 0.16	DEFL. Vert(LL) Vert(CT)	in 0.21 -0.27	(loc) 8 8	l/defl >460 >358	L/d 240 180	PLATES MT20	<b>GRIP</b> 197/144
BCLL 0.0 BCDL 10.0	Rep Stress Incr Code IRC2018/TP	YES 12014	WB Matrix	0.07 <-AS	Horz(CT)	0.23	6	n/a	n/a	Weight: 33 lb	FT = 20%
LUMBER- TOP CHORD 2	4 SPF No.2				BRACING- TOP CHOF	RD.	Structu	ral wood	sheathing di	rectly applied, except	end verticals, and

BOT CHORD 2x4 SPF No.2 2-0-0 oc purlins: 4-5. 2x4 SPF No.2 BOT CHORD Rigid ceiling directly applied. Left 2x6 SPF No.2 -t 1-9-1

REACTIONS. (size) 6=Mechanical, 2=0-3-8 Max Horz 2=114(LC 9) Max Uplift 6=-72(LC 9), 2=-113(LC 12) Max Grav 6=345(LC 1), 2=511(LC 1)

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

3-10=-444/389, 3-4=-297/78 TOP CHORD

BOT CHORD 3-7=-176/266, 6-7=-177/258

WEBS 4-6=-370/218

### NOTES-

WEBS

SLIDER

- 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 5-11-15, Exterior(2E) 5-11-15 to 8-0-4 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) 6 except (jt=lb) 2=113

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

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

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







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 0.50	Vert(LL) 0.10 3-6 >913 240 MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.37	Vert(CT) -0.20 3-6 >483 180
BCLL	0.0	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.11 6 n/a n/a
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS	Weight: 32 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

#### LUMBER-

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

REACTIONS. (size) 6=Mechanical, 8=0-3-8 Max Horz 8=172(LC 9) Max Uplift 6=-96(LC 12), 8=-112(LC 12)

Max Grav 6=336(LC 1), 8=519(LC 1)

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

TOP CHORD 3-4=-419/130, 2-8=-500/266

BOT CHORD 7-8=-323/268, 3-6=-299/388

WEBS 4-6=-417/299. 2-7=-305/367

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 8-0-4 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.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=112.

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

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



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

May 6,2021



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

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 9=107.

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

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.







LOADING	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 0.24	Vert(LL) -0.10 8-11 >933 240	MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.20 8-11 >469 180	
BCLL	0.0	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.01 2 n/a n/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 35 lb FT = 20%

#### LUMBER-

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x6 SPF No.2 - t 2-6-0

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 2=0-3-8, 8=Mechanical Max Horz 2=181(LC 11) Max Uplift 2=-105(LC 12), 8=-77(LC 12)

Max Grav 2=506(LC 1), 8=350(LC 1)

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

 TOP CHORD
 2-4=-580/123

 BOT CHORD
 2-8=-242/273

 WEBS
 4-8=-323/239

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

2) 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.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=105.

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.



Mitek° 16023 Swingley Ridge Rd Chesterfield, MO 63017



			1-6-10	1			5-2-	-12	0-0-7
[2:0-7-8,Edge], [5:Edge,0-2-	0]								
SPACING- 2 Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TPI20	2-0-0 1.15 1.15 YES 014	<b>CSI.</b> TC 0.56 BC 0.34 WB 0.37 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.06 -0.12 0.01	(loc) 6-7 6-7 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 43 lb	<b>GRIP</b> 197/144 FT = 20%
F No.2 F No.2 F No.2 S SPF No.2 -t 2-6-0			BRACING- TOP CHOR BOT CHOR	D D	Structu 2-0-0 c Rigid c	ral wood c purlins eiling dire	sheathing dir (6-0-0 max.): actly applied.	ectly applied, except 4-5.	end verticals, and
FFF	SPACING- 2 Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TPI20	SPACING-         2-0-0           Plate Grip DOL         1.15           Lumber DOL         1.15           Code IRC2018/TPI2014	SPACING-         2-0-0         CSI.           Plate Grip DOL         1.15         TC         0.56           Lumber DOL         1.15         BC         0.34           Rep Stress Incr         YES         WB         0.37           Code         IRC2018/TPI2014         Matrix-AS	SPACING-         2-0-0         CSI.         DEFL.           Plate Grip DOL         1.15         TC         0.56         Vert(LL)           Lumber DOL         1.15         BC         0.34         Vert(CT)           Rep Stress Incr         YES         WB         0.37         Horz(CT)           Code         IRC2018/TPI2014         Matrix-AS         BRACING-           F No.2         F No.2         BOT CHOR         SOT CHOR           SPF No.2 - 1 2-6-0         SOL 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	SPACING-         2-0-0         CSI.         DEFL.         in           Plate Grip DOL         1.15         TC         0.56         Vert(LL)         -0.06           Lumber DOL         1.15         BC         0.34         Vert(CT)         -0.12           Rep Stress Incr         YES         WB         0.37         Horz(CT)         0.01           Code IRC2018/TPI2014         Matrix-AS         BRACING-         TOP CHORD           F No.2         No.2         BOT CHORD         BOT CHORD           SPF No.2 - 12-6-0         SPF No.2 - 12-6-0         BOT CHORD         SPF No.2 - 12-6-0	SPACING-         2-0-0         CSI.           Plate Grip DOL         1.15         TC         0.56           Lumber DOL         1.15         BC         0.34           Rep Stress Incr         YES         WB         0.37           Code IRC2018/TPI2014         Matrix-AS         BRACING-           F No.2         F No.2         E No.2         BRACING-           F No.2         SPF No.2 - 1 2-6-0         BOT CHORD         Rigid c	SPACING-         2-0-0         CSI.           Plate Grip DOL         1.15         TC         0.56           Lumber DOL         1.15         BC         0.34           Rep Stress Incr         YES         WB         0.37           Code IRC2018/TPI2014         Matrix-AS         BRACING-           F No.2         No.2         TOP CHORD         Structural wood           SPF No.2 - 12-6-0         Structural wood         2-0-0 oc purlins	SPACING-         2-0-0         CSI.           Plate Grip DOL         1.15         TC         0.56           Lumber DOL         1.15         BC         0.34           Rep Stress Incr         YES         WB         0.37           Code IRC2018/TPI2014         Matrix-AS         Horz(CT)         0.01         6         n/a         n/a           * No.2         No.2         SPF No.2 - 12-6-0         SPF No.2 - 12-6-0         Structural wood sheathing directly applied.	SPACING-         2-0-0         CSI.         DEFL.         in         (loc)         //defl         L/d         PLATES           Plate Grip DOL         1.15         TC         0.56         Vert(LL)         -0.06         6-7         >999         240         MT20           Lumber DOL         1.15         BC         0.34         Vert(CT)         -0.12         6-7         >999         180           Rep Stress Incr         YES         WB         0.37         Matrix-AS         Weight: 43 lb         Weight: 43 lb           F         No.2         TOP CHORD         Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 4-5.         BOT CHORD         Rigid ceiling directly applied.           SPF No.2 - 12-6-0         SPF No.2 - 12-6-0         Mit is a back         BIT         Structural wood sheathing directly applied.

REACTIONS. (size) 2=0-3-8, 6=Mechanical Max Horz 2=96(LC 11) Max Uplift 2=-134(LC 8), 6=-103(LC 9) Max Grav 2=611(LC 1), 6=452(LC 1)

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

TOP CHORD 2-4=-609/194

BOT CHORD 2-7=-242/550, 6-7=-247/546

WEBS 4-6=-430/189

#### 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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 3-8-2, Exterior(2R) 3-8-2 to 7-11-0, Interior(1) 7-11-0 to 10-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

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

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=134, 6=103.

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.



MITEK° 16023 Swingley Ridge Rd Chesterfield, MO 63017



LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	<b>CSI.</b> TC 0.20 BC 0.10 WB 0.04 Matrix-P	DEFL. Vert(LL) Vert(CT) Horz(CT) -	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 22 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER-			BRACING-						

TOP CHORD

BOT CHORD

# LUMBER-

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

#### REACTIONS. (size) 1=7-8-4, 4=7-8-4, 5=7-8-4

Max Horz 1=125(LC 9) Max Uplift 4=-27(LC 9), 5=-112(LC 12)

Max Grav 1=89(LC 20), 4=138(LC 1), 5=389(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-5=-303/243WEBS

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) 0-9-1 to 3-8-14, Interior(1) 3-8-14 to 7-7-2 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Gable requires continuous bottom chord bearing.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=112.

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 6-0-0 oc purlins,

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

except end verticals.





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

TOP CHORD

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

BOT CHORD

Structural wood sheathing directly applied or 5-8-14 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. 1=5-8-4, 3=5-8-4 (size) Max Horz 1=89(LC 9)

Max Uplift 1=-40(LC 12), 3=-58(LC 12) Max Grav 1=218(LC 1), 3=218(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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 5-7-2 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate

grip DOL=1.60 2) Gable requires continuous bottom chord bearing.

- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.







2x4 ⋍

2x4 ||

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

except end verticals.

LOADING (psf) TCLL 25.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.14	DEFL.         in         (loc)         l/defl         L/d         PLATES         GRIP           Vert(LL)         n/a         -         n/a         999         MT20         197/144           Vert(CT)         -         n/a         900         MT20         197/144
ICDL         10.0           BCLL         0.0           BCDL         10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.00 Matrix-P	Horz(CT) 1/a - 1/a 999 Horz(CT) 0.00 3 n/a n/a Weight: 9 lb FT = 20%
LUMBER- TOP CHORD 2x4 SP	F No.2		BRACING- TOP CHORD Structural wood sheathing directly applied or 3-8-14 oc purlins,

BOT CHORD

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

REACTIONS. (size) 1=3-8-4, 3=3-8-4 Max Horz 1=52(LC 11) Max Uplift 1=-24(LC 12), 3=-34(LC 12) Max Grav 1=128(LC 1), 3=128(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

2) Gable requires continuous bottom chord bearing.

- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.

# NUMBER PE-2001018807 May 6,2021



