



12/02/2020

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

Re: 2532255 Summit/6 Woodside

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: I43731891 thru I43731929

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

Missouri COA: Engineering 001193



Sevier, Scott

November 23,2020

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

,Engineer



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🔺 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 besign value to be only with with ever connectors. This besign is based only upon 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 Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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MiTek



TOP CHORD 2x4 SPF No.2 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc pur	ins,
BOT CHORD 2x4 SPF No.2 except end verticals.	
WEBS 2x4 SPF No.2 BOT CHORD Rigid ceiling directly applied or 10-0 oc bracing.	
OTHERS 2x4 SPF No.2 WEBS 1 Row at midpt 13-24, 12-25, 11-26, 14-23, 1	5-22

REACTIONS. All bearings 30-3-8.

(lb) - Max Horz 34=301(LC 15)

Max Uplift All uplift 100 b or less at joint(s) 19, 34, 24, 25, 26, 27, 28, 29, 30, 31, 32, 23, 22, 21, 20 except 33=-103(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 19, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 23, 22, 21, 20 except 34=267(LC 29)

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

TOP CHORD 2-3=-265/201, 11-12=-158/262, 12-13=-164/303, 13-14=-164/303, 14-15=-150/262

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-3-2, Exterior(2N) 2-3-2 to 20-3-2, Corner(3R) 20-3-2 to 23-3-2, Exterior(2N) 23-3-2 to 30-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 34, 24, 25, 26, 27, 28, 29, 30, 31, 32, 23, 22, 21, 20 except (jt=lb) 33=103.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.





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2-0	0-0 6-0-0	·	10-0-0 12-0-0							
2-(0-0 4-0-0	I	4-0-0	I	2-0-0					
Plate Offsets (X,Y) [3:0-3-5,]	Edge], [5:0-3-5,Edge]									
LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 20.4/20.0 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. DE TC 0.27 Ve BC 0.22 Ve WB 0.17 Ho Matrix-MS Ho Ho	FL. in (loc) t(LL) -0.04 10 t(CT) -0.06 10 z(CT) 0.01 8	l/defl L/d >999 240 >999 180 n/a n/a	PLATES GRIP MT20 197/144 Weight: 48 lb FT = 20%					
BCDL 10.0										
LUMBER- TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2		BRACING- TOP CHOR BOT CHOR	 Structural wood except end verti Rigid ceiling dire 	sheathing directly app cals, and 2-0-0 oc purl actly applied or 6-0-0 o	lied or 6-0-0 oc purlins, lins (5-0-2 max.): 3-5. c bracing.					
REACTIONS. (size) 12=0 Max Horz 12=- Max Uplift 12=- Max Grav 12=5	9-3-8, 8=0-3-8 48(LC 10) 90(LC 12), 8=-90(LC 12) 97(LC 2), 8=597(LC 2)									
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-663/78, 3-4=-1255/150, 4-5=-1255/150, 5-6=-663/78, 2-12=-589/95, 6-8=-589/95 BOT CHORD 10-11=-56/611, 9-10=-52/611 WEBS 3-10=-84/687, 4-10=-415/82, 5-10=-84/687, 2-11=-59/631, 6-9=-60/631										
NOTES- 1) Unbalanced roof live loads ha 2) Wind: ASCE 7-16; Vult=115m II; Exp C; Enclosed; MWFRS plate grip DOL=1.60 3) TCLL: ASCE 7-16; Pr=25.0 p DOL=1.15); Is=1.0; Rough Ca surfaces with slopes less than 4) Unbalanced snow loads have 5) This truss has been designed non-concurrent with other live 6) Provide adequate drainage to 7) This truss has been designed 8) Provide mechanical connectie 9) This truss is designed in accor referenced standard ANSI/TF 10) Graphical purlin representat 11) "NAILED" indicates 3-10d (0 12) In the LOAD CASE(S) sector LOAD CASE(S) Standard 1) Dead + Snow (balanced): Lur Uniform Loads (plf) Vert: 1-2=-51, 2-3=-5	 IOP CHORD 2-3=-663/78, 3-4=-125/150, 5-6=-663/78, 2-12=-589/95, 6-8=-589/95 BOT CHORD 10-11=-56/611, 9-10=-29/611 WEBS 3-10=-84/687, 4-10=-415/82, 5-10=-84/687, 2-11=-59/631, 6-9=-60/631 NOTES- Unbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II: Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed : end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60 TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15; Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Cl=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4. Unbalanced snow loads have been considered for this design. This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads. Provide adequate drainage to prevent water ponding. This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. Provide adequate drainage to prevent water ponding. This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. Provide adequate drainage to prevent water ponding. This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TP1 1. Graphicates 3-104 (0.148'x3.7) or 2-12d (0.148'x3.25') toe-nails per NDS guidlines. 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 + Snow (balanced): Lumber Increase=1.15 									

Continued on page 2

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November 23,2020

			RELEASE FO	DR			
Job	Truss	Truss Type	CONSTRUCT	ØN	Ply	Summit/6 Woodside	
2532255	D1	Hin Girder	AS NOTED ON PLANS	REVIE	W 1		143731900
2332233			DEVELOPMENT SEF	RVICES		Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	LEE'S SUMMIT, MIS	SOURI	240 s Mar	9 2020 MiTek Industries, Inc. Mon Nov 23 08:08:32	2020 Page 2
			ID:VPVqvF	nP0P0b1j	2tZrlOqez	dKbx-v?QNPdLn_ROFZ9hR9_6ZW6X1Enz6e1W_Xv	/?pL_yGMQT
			12/02/2020				
LOAD CASE(S) Standard							
Concentrated Loads (lb)							

Concentrated Loads (lb) Vert: 11=1(F) 10=0(F) 9=1(F) 19=0(F) 20=0(F)

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Scale = 1:22.9



	4-0-0	<u>8-0-0</u> 4-0-0		<u>12-0-0</u> 4-0-0		
Plate Offsets (X,Y) [2:Edge,0	0-0-0], [7:Edge,0-0-0]					
LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 20.4/20.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.31 BC 0.26 WB 0.03 Matrix-AS	DEFL. in Vert(LL) -0.04 Vert(CT) -0.06 Horz(CT) 0.02	(loc) l/defi L/d 9 >999 240 9 >999 180 7 n/a n/a	PLATES MT20 Weight: 45 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2		BRACIN TOP CH	IG- ORD Structura 2-0-0 oc j	l wood sheathing directly appli purlins (6-0-0 max.): 4-5.	ed, except	

Rigid ceiling directly applied

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2
 BOT CHORD

 SLIDER
 Left 2x6 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0
 BOT CHORD

REACTIONS. (size) 2=0-3-8, 7=0-3-8 Max Horz 2=46(LC 15) Max Uplift 2=-72(LC 16), 7=-72(LC 16) Max Grav 2=608(LC 39), 7=608(LC 39)

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

TOP CHORD 2-4=-680/223, 4-5=-584/222, 5-7=-680/223

BOT CHORD 2-10=-114/587, 9-10=-115/584, 7-9=-113/587

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 4-0-0, Exterior(2E) 4-0-0 to 8-0-0, Exterior(2R) 8-0-0 to 12-0-0, Interior(1) 12-0-0 to 12-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.

Unbalanced snow loads have been considered for this design.

5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

6) Provide adequate drainage to prevent water ponding.

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

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

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





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3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

4) Unbalanced snow loads have been considered for this design.

- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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) 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

REACTIONS.

WEBS

OTHERS

Max Uplift All uplift 100 lb or less at joint(s) 5, 7, 6

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TOP CHORD 1-2=-276/148
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(lb) -

2x4 SPF No.2

2x4 SPF No.2

2x4 SPF No.2

2x4 SPF No.2

All bearings 5-10-15. Max Horz 1=107(LC 13)

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WEBS 2-7=-239/309
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NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-0-0 to 2-11-8, Exterior(2N) 2-11-8 to 5-9-3 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
- 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 7=301(LC 20)

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



Structural wood sheathing directly applied or 5-10-15 oc purlins,

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

except end verticals.

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



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







[14:0-0-	9,0-1-12]							
LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 TCDL 10.0 BCLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.41 BC 0.38 WB 0.11	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.05 12 -0.09 11-12 0.07 10	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 MT20HS	GRIP 197/144 148/108
		Maurix-AS					vvelant: 45 lb	FI = 20%

BRACING-TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 11-12

REACTIONS. (size) 14=0-3-8, 10=0-3-8 Max Horz 14=66(LC 15) Max Uplift 14=-75(LC 16), 10=-75(LC 16)

Max Uplift 14=-75(LC 16), 10=-75(LC 16)Max Grav 14=601(LC 2), 10=601(LC 2)

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

 TOP CHORD
 2-3=-647/213, 3-4=-1392/433, 4-5=-886/283, 5-6=-886/290, 6-7=-1392/397, 7-8=-647/200, 2-14=-676/240, 8-10=-676/252

 BOT CHORD
 13-14=-145/472, 3-13=-218/835, 12-13=-356/1285, 11-12=-300/1285, 7-11=-201/835, 10-11=-104/472

WEBS 5-12=-113/456, 6-12=-546/191, 4-12=-546/207

10.0

2x4 SPF No.2

2x4 SPF No.2

2x4 SPF No.2

2x4 SPF No.2

NOTES-

BCDL

WEBS

OTHERS

I UMBER-

TOP CHORD

BOT CHORD

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 1-11-13, Interior(1) 1-11-13 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

4) Unbalanced snow loads have been considered for this design.

5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

6) All plates are MT20 plates unless otherwise indicated.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 14, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 10.
 This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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[11000	, o i i =]						
LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 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 0.41 BC 0.38 WB 0.11 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) l/da -0.05 12 >99 -0.09 11-12 >99 0.07 10 n	efl L/d 39 240 39 180 a/a n/a	PLATES MT20 MT20HS Weight: 45 lb	GRIP 197/144 148/108 FT = 20%
LUMBER- TOP CHORD 2x4 SPF No.2		BR TO	ACING- P CHORD St	tructural wood shea	athing directly applied		

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 11-12

REACTIONS. (size) 14=0-3-8, 10=0-3-8 Max Horz 14=66(LC 15) Max Uplift 14=-75(LC 16), 10=-75(LC 16) Max Grav 14=601(LC 2), 10=601(LC 2)

2x4 SPF No.2

2x4 SPF No.2

2x4 SPF No.2

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

 TOP CHORD
 2-3=-647/213, 3-4=-1392/433, 4-5=-886/283, 5-6=-886/290, 6-7=-1392/397, 7-8=-647/200, 2-14=-676/240, 8-10=-676/252

 BOT CHORD
 13-14=-145/472, 3-13=-218/835, 12-13=-356/1285, 11-12=-300/1285, 7-11=-201/835, 10-11=-104/472

 WEBS
 5-12=-113/456, 6-12=-546/191, 4-12=-546/207

NOTES-

BOT CHORD

WEBS

OTHERS

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 1-11-13, Interior(1) 1-11-13 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

4) Unbalanced snow loads have been considered for this design.

5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

6) All plates are MT20 plates unless otherwise indicated.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 14, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 10.
 This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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16023 Swingley Ridge Rd Chesterfield, MO 63017

			RELEASE FOR			
Job	Truss	Truss Type	CONSTRUCTION	Ply	Summit/6 Woodside	
2532255	GR1	Roof Special	Girder AS NOTED ON PLANS REVIE	w 2	143	731907
Builders FirstSource (Valley	Center), Valley Center, F	(S - 67147,	LEE'S SUMMIT, MISSOURI	240 s Ma	9 2020 MiTek Industries, Inc. Mon Nov 23 08:08:40 2020 Pag	je 2
			ID:VPVqvFnP0P0b1j2	2tZrlOqez	dKbx-gYvP4MRo5uP7WOI_dfFRqosN10caWV?9M9xFdWyGM	QL
NOTES- 12) Fill all nail holes where	hanger is in contact with lun	nher	12/02/2020			

Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-4=-61, 9-11=-20, 6-9=-20, 5-6=-20

Concentrated Loads (lb)

Vert: 8=-1187(F) 14=-1146(F) 15=-1187(F) 16=-1187(F) 17=-1146(F)

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16023 Swingley Ridge Rd Chesterfield, MO 63017

MiTek



LOADING (psf) SPACING- TCLL (roof) 25.0 Plate Grip DOL Snow (Pf/Pg) 15.4/20.0 Lumber DOL TCDL 10.0 Rep Stress Incr BCLL 0.0 Code IRC2018/TPI2	2-0-0 CSI. 1.15 TC 1.15 BC YES WB 2014 Matr	DEFL. 0.08 Vert(LL) 0.04 Vert(CT) 0.00 Horz(CT) ix-MR Horz(CT)	in (loc) -0.00 5 -0.00 5 -0.00 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 6 lb	GRIP 197/144 FT = 20%
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LUMBER-

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

BRACING-TOP CHORD

Structural wood sheathing directly applied or 1-10-3 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=61(LC 16) Max Uplift 5=-26(LC 16), 3=-18(LC 16), 4=-1(LC 16) Max Grav 5=179(LC 21), 3=42(LC 28), 4=30(LC 7)

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=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

3) Unbalanced snow loads have been considered for this design.

4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.

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



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BRACING-

TOP CHORD

BOT CHORD

Matrix-MR

NOTES-

BCDL

WEBS

LUMBER-

TOP CHORD

BOT CHORD

REACTIONS.

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

3) Unbalanced snow loads have been considered for this design.

4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

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

Code IRC2018/TPI2014

5=0-3-8, 3=Mechanical, 4=Mechanical

Max Grav 5=185(LC 21), 3=48(LC 21), 4=33(LC 7) FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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

10.0

2x4 SPF No.2

2x4 SPF No.2

2x4 SPF No.2

Max Horz 5=63(LC 16)

Max Uplift 5=-26(LC 16), 3=-19(LC 16)

(size)

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

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.



Weight: 7 lb

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

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

except end verticals.

FT = 20%

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





BOT CHORD

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

OTHERS 2x4 SPF No.2

REACTIONS. All bearings 7-8-9.

Max Horz 1=-101(LC 12) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-4, Exterior(2R) 3-10-4 to 6-10-4, Interior(1) 6-10-4 to 7-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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, 8, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017

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

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

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



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RELEASE FOR	
Job Truss Truss Type CONSTRUCTION Ply Summit/6 Woodside	
2532255 M2 Common AS NOTED ON PLANS REVIEW 1 DEVELOPMENT SERVICES 1 Job Reference (optional)	143731913
Builders FirstSource (Valley Center), Valley Center, KS - 67147, LEE'S SUMMIT, MISSOURI 240 s Ma 9 2020 MITek Industries, Inc. Mon Nov 23 06 ID:VPVgvEnP0P0b1i2tZrl0gezdKbx-1Vil74VxwQ1Pd9AxQCrcXsa6z1ES	8:08:45 2020 Page 1 BybyWRe?livGMQG
-0-11-0 7-9-12 15-4-0 12/02(2020 22-10-4 30-8-0 0-11-0 7-9-12 7-6-4 7-9-12	<u>31-7-0</u> 0-11-0



	10-3-13 10-3-13					
LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 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 0.85 BC 0.91 WB 0.18 Matrix-AS	DEFL. in Vert(LL) -0.23 1 Vert(CT) -0.50 1 Horz(CT) 0.11	(loc) l/defl L/d 2-14 >999 240 2-14 >730 180 10 n/a n/a	PLATES MT20 Weight: 110 lb	GRIP 197/144 FT = 20%
LUMBER-		BRACI	ING-			

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

LUMBER-

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

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8 Max Horz 2=-111(LC 14) Max Uplift 2=-140(LC 16), 10=-140(LC 16) Max Grav 2=1444(LC 2), 10=1444(LC 2)

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

2-4=-2464/318, 4-6=-2218/321, 6-8=-2218/321, 8-10=-2464/318 TOP CHORD

BOT CHORD

2-14=-212/2203, 12-14=-93/1560, 10-12=-216/2203 WFBS 6-12=-53/723, 8-12=-477/158, 6-14=-53/723, 4-14=-477/158

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-4-0, Exterior(2R) 15-4-0 to 18-4-0, Interior(1) 18-4-0 to 31-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

4) Unbalanced snow loads have been considered for this design.

5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

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

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=140, 10=140.

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

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



Scale = 1:52.2



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			R	RELEASE FO	R				
Job	Truss	Truss Type	C	ONSTRUCTIO	DN Ply	Summit/6 We	oodside		
2532255	M4	GABLE	AS NOT DEVE	TED ON PLANS	REVIEW 1 VICES	Job Referenc	e (optional)		143731914
Builders FirstSource (Valley	Center), Valley Center,	KS - 67147,	LEE'S	s summit, miss	OUR 240 s Ma	9 2020 MiTel	k Industries, Inc.	Mon Nov 23 08:08:	47 2020 Page 1
				ID:VPV	qvFnP0P0b1j2tZrl	OqezdKbx-zuq	2YmXBS2H7sSł	KYdu4cHfXwq1fflb	Bzl76NcyGMQE
-Q-11-Q	7-9-12		15-4-0	12/02/2020	22-10-4		1	30-8-0	31-7-0 ₁
0-11-0 [']	7-9-12		7-6-4		7-6-4		I	7-9-12	0-11-0 ¹



7-	<u>}-12</u>	15-4-0	20-8-0	22-10-4	۱ ۱	30-8-0			
Plate Offsets (X,Y) [2:0-5-9,]	Edge]	7-0-4	5-4-0	2-2-4		7-9-12			
LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 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 0.56 BC 0.48 WB 0.40 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.07 22-24 = -0.16 22-24 = 0.03 = 20	/defl L/d 9999 240 9999 180 n/a n/a	PLATES MT20 Weight: 143 lb	GRIP 197/144 FT = 20%		
LUMBER- TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2 OTHERS 2x4 SPF No.2 SLIDER Left 2x4 SPF No.2	9.2 2-6-0		BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sh Rigid ceiling direct 1 Row at midpt	neathing directly ap ly applied. 4-22	plied, except end vertic	cals.		
REACTIONS. All bearings 10 (lb) - Max Horz 2=12 Max Uplift All Max Grav All	 -3-8 except (jt=length) 2=0-3-8, 20=0-4(LC 15) uplift 100 lb or less at joint(s) 17, 16 exections 250 lb or less at joint(s) 18, 1 	3-8. ccept 2=-112(LC 16), 19 7, 16, 15, 14, 20 excep	=-101(LC 16), 14=- t 2=976(LC 2), 19=	102(LC 34) 1130(LC 2)					
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. TOP CHORD 2-4=-1306/214, 4-6=-683/185, 6-8=-654/181, 8-9=0/254 BOT CHORD 2-24=-119/1275, 22-24=-119/1275 WEBS 4-22=-851/146, 4-24=0/306, 8-19=-1172/148, 8-22=-43/881									
 NOTES- 1) Unbalanced roof live loads ha 2) Wind: ASCE 7-16; Vult=115m II; Exp C; Enclosed; MWFRS 18-4-0, Interior(1) 18-4-0 to 3 forces & MWFRS for reaction 3) Truss designed for wind load: Gable End Details as applical 4) TCLL: ASCE 7-16; Pr=25.0 p DOL=1.15); Is=1.0; Rough Ca 5) Unbalanced snow loads have 6) This truss has been designed non-concurrent with other live 7) All plates are 2x4 MT20 unles 8) Gable studs spaced at 2-0-0 9) This truss has been designed 10) Provide mechanical connect (jt=lb) 2=112, 19=101, 14=1 11) This truss is design equires th sheetrock be applied directly 	ve been considered for this design. ph (3-second gust) Vasd=91mph; TCI (directional) and C-C Exterior(2E) -0-1 1-7-0 zone; cantilever left and right exy s shown; Lumber DOL=1.60 plate grip in the plane of the truss only. For stu ble, or consult qualified building design sf (roof LL: Lum DOL=1.15 Plate DOL= tt C; Partially Exp.; Ce=1.0; Cs=1.00; (been considered for this design. for greater of min roof live load of 12.1 loads. so otherwise indicated. bc. for a 10.0 psf bottom chord live load r ion (by others) of truss to bearing plat 02. bordance with the 2018 International R Pl 1. hat a minimum of 7/16" structural wood y to the bottom chord.	DL=6.0psf; BCDL=4.2ps 1-0 to 2-1-0, Interior(1) posed ; end vertical left DOL=1.60 ids exposed to wind (no ier as per ANSI/TPI 1. =1.15); Pg=20.0 psf; Pf= Ct=1.10 D psf or 1.00 times flat me nonconcurrent with any is a capable of withstandir esidential Code section is sheathing be applied d	sf; h=15ft; B=45ft; L 2-1-0 to 15-4-0, Ex and right exposed;0 ormal to the face), so =15.4 psf (Lum DOL oof load of 15.4 psf other live loads. ng 100 lb uplift at joi s R502.11.1 and R8 lirectly to the top ch	=24ft; eave=4ft; Ca terior(2R) 15-4-0 to >-C for members ar ee Standard Industr .=1.15 Plate on overhangs nt(s) 17, 16 except 802.10.2 and ord and 1/2" gypsur	t. nd ry	DE LO DE MISO SUTE OF MISO SCOTT M. SEVER PE-200101880 PE-20010180 PE-20010 PE-20000 PE-20000 P			

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





I		20-8-0							1
Plate Offsets (X,Y) [2:0-4-5,0)-0-1], [14:0-4-5,0-0-1]								
LOADING (psf) ICLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 ICDL 10.0 SCLL 0.0 SCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.05 BC 0.03 WB 0.05 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.00 -0.00 0.00	(loc) 14 14 14	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 83 lb	GRIP 197/144 FT = 20%
UMBER-		BR	ACING-						

LUMBER-

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

SLIDER Left 2x4 SPF No.2 1-7-4, Right 2x4 SPF No.2 1-7-4 TOP CHORD BOT CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 20-8-0.

Max Horz 2=-77(LC 14) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 25, 19, 18, 17, 16, 14 All reactions 250 lb or less at joint(s) 2, 20, 22, 23, 24, 25, 19, 18, 17, 16, 14 Max Grav

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

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-4-0, Exterior(2N) 2-4-0 to 10-4-0, Corner(3R) 10-4-0 to 13-4-0, Exterior(2N) 13-4-0 to 21-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

- 4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

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

8) Gable requires continuous bottom chord bearing.

9) Gable studs spaced at 2-0-0 oc.

- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 23, 24, 25, 19. 18. 17. 16. 14.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.





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 Satisfies
 Ansi/TPH Qu

 Safety Information
 available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

				RELEASE FO	R			
Job	Truss	Truss Type		CONSTRUCTIO	N Ply	Summit/6 Woo	dside	
2532255	M6	Common	AS N DE	OTED ON PLANS	REVIEW 1 VICES	Job Reference	(ontional)	143731916
Builders FirstSource (V	/alley Center),	Valley Center, KS - 67147,	LE	E'S SUMMIT, MISS	OUR .240 s Ma	9 2020 MiTek I	ndustries, Inc. Mon Nov 23 08:00	8:50 2020 Page 1
				ID:VPV	qvFnP0P0b1j2tZr	OqezdKbx-O1W	BBnZ3lzfijw3vDmRnEvHzi2xcsA	petjMmzxyGMQB
1	7-9-12	1	15-4-0	12/02/2020	22-10-4		30-8-0	31-7-0
	7-9-12		7-6-4	12/02/2020	7-6-4		7-9-12	0-11-0



<u> </u>	<u>20-4-3</u> 10-0-5	<u> </u>	
Plate Offsets (X,Y) [4:0-4-0,Edge]			
LOADING (psf) SPACING- 2- TCLL (roof) 25.0 Plate Grip DOL 1 Snow (Pf/Pg) 15.4/20.0 Lumber DOL 1 TCLL 0.0 BCLL 0.0 Rep Stress Incr Y Gode 10.0 Code IRC2018/TPI201 Rep Stress Rep Stress	CSI. DEFL. i TC 0.85 Vert(LL) -0.2 BC 0.91 Vert(CT) -0.5 WB 0.18 Horz(CT) 0.1 Matrix-AS Horz(CT) 0.1 1	n (loc) l/defl L/d 3 11-13 >999 240 MT20 1 0 11-13 >736 180 1 9 n/a n/a Weight: 109 lb	GRIP 197/144 FT = 20%
LUMBER-	BRACING-		



Structural wood sheathing directly applied. Rigid ceiling directly applied.

REACTIONS. (size) 1=0-3-8, 9=0-3-8 Max Horz 1=-110(LC 14) Max Uplift 1=-112(LC 16), 9=-140(LC 16) Max Grav 1=1379(LC 2), 9=1445(LC 2)

TOP CHORD 2x4 SPF No.2

2x4 SPF No.2

2x4 SPF No.2

BOT CHORD

WEBS

SLIDER

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

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

TOP CHORD 1-3=-2470/325, 3-5=-2224/328, 5-7=-2220/322, 7-9=-2466/318

BOT CHORD 1-13=-212/2210, 11-13=-96/1562, 9-11=-218/2205

WEBS 5-11=-53/723, 7-11=-477/158, 5-13=-54/728, 3-13=-480/158

NOTES-

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

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 15-4-0, Exterior(2R) 15-4-0 to 18-4-0, Interior(1) 18-4-0 to 31-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

4) Unbalanced snow loads have been considered for this design.

5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

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

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=112, 9=140.

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

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



Scale = 1:52.1

16023 Swingley Ridge Rd Chesterfield, MO 63017

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Plate Offsets (X,Y) [2:0-4-12	,0-0-2]							
LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 TCDL 10.0 SCLL 0.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYES	CSI. TC 0.26 BC 0.15 WB 0.19	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (lo -0.02 5 -0.03 5 0.01	c) l/defl -9 >999 -9 >999 2 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 27 lb	FT = 20%
LUMBER-		BR	ACING-					

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2 OTHERS 2x4 SPF No.2 SLIDER Left 2x6 SPF No.2 2-6-0 TOP CHORD BOT CHORD

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

REACTIONS. (size) 2=0-3-8, 11=0-3-8 Max Horz 2=79(LC 16) Max Uplift 2=-26(LC 16), 11=-44(LC 16)

Max Grav 2=338(LC 2), 11=264(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-4=-524/264

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 5-8-8 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11. 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1. 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum
- sheetrock be applied directly to the bottom chord.



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





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November 23,2020



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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.

5) Gable requires continuous bottom chord bearing.

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

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to 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 **ANSITPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





2x4 💋

2x4 🔍

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

0- <u>0-8</u> 0-0-8 Plate Offsets (X.Y) [2:0-3-0.E	dael	<u>3-7-</u> 3-6-	-1 -9					
LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 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 0.03 BC 0.05 WB 0.00 Matrix-P	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) n/a - n/a - 0.00 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 7 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SPF No.2		BI	RACING- DP CHORD Stru	uctural wood	sheathing	directly app	blied or 3-7-1 oc purl	ins.

BOT CHORD

BOT CHORD 2x4 SPF No.2

REACTIONS. (size) 1=3-6-1, 3=3-6-1 Max Horz 1=11(LC 15) Max Uplift 1=-8(LC 16), 3=-8(LC 16) Max Grav 1=105(LC 2), 3=105(LC 2)

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

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.

5) Gable requires continuous bottom chord bearing.

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

r) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

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.



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Displace (poi) SPACING- 2-0-0 CSI. DEFL. in (loc) l/defl L/d PLATES GRIP Snow (Pf/Pg) 15.4/20.0 Plate Grip DOL 1.15 TC 0.23 Vert(LL) n/a - n/a 999 MT20 197/144 TCDL 10.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 3 n/a n/a BCDL 10.0 Code IRC2018/TPI2014 Matrix-P Weight: 11 lb FT = 20*	LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING- 2-0-0 20.0 Plate Grip DOL 1.15 10.0 Lumber DOL 1.15 0.0 Rep Stress Incr YES 10.0 Code IRC2018/TPI2014	CSI. TC 0.23 BC 0.12 WB 0.00 Matrix-P	DEFL. in (loc) l/defl L/d Vert(LL) n/a - n/a 999 Vert(CT) n/a - n/a 999 Horz(CT) 0.00 3 n/a n/a	PLATES GRIP MT20 197/144 Weight: 11 lb FT = 20%

LUMBER-

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

BRACING-TOP CHORD

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

REACTIONS. (size) 1=4-2-3, 3=4-2-3 Max Horz 1=60(LC 15) Max Uplift 1=-10(LC 16), 3=-15(LC 13) Max Grav 1=163(LC 20), 3=163(LC 20)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-0-15 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

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, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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2x4 💋

CSI.

тс

BC

WB

Matrix-P

0.05

0.03

0.00

ł

2-0-0

1.15

1.15

YES

2x4 ||

in (loc)

n/a

n/a

except end verticals.

DEFL.

BOT CHORD

Vert(LL)

Vert(CT)

	H0I2(CT)	0.00	3	n/a	n/a	Weight: 6 lb	FT = 20%
BRA TOP	CING- CHORD	Structural	wood s	sheathin	a directlv ap	plied or 2-6-11 oc purlir	IS.

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

l/defl

n/a

n/a

L/d

999

999

PLATES

MT20

GRIP

197/144

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

LOADING (psf)

Snow (Pf/Pg) 15.4/20.0

TCLL (roof)

TCDI

BCLL

BCDL

REACTIONS. (size) 1=2-6-3, 3=2-6-3 Max Horz 1=31(LC 15) Max Uplift 1=-5(LC 16), 3=-8(

25.0

10.0

0.0

10.0

Max Uplift 1=-5(LC 16), 3=-8(LC 13) Max Grav 1=80(LC 2), 3=80(LC 2)

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

SPACING-

Plate Grip DOL

Rep Stress Incr

Code IRC2018/TPI2014

Lumber DOL

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

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, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and

referenced standard ANSI/TPI 1.



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2x4 💋

2x4 ||

	ł							
LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.05 BC 0.03 WB 0.00 Matrix-P	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc n/a n/a 0.00) l/defl - n/a - n/a 3 n/a	L/d 999 999 n/a	PLATES MT20 Weight: 6 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2		BRA TOP BOT	CING- CHORD CHORD	Structural wor except end ve Rigid ceiling of	od sheathin erticals. lirectly appl	g directly ap	plied or 2-6-14 oc pu) oc bracing.	rlins,

WEBS 2x4 SPF No.2 REACTIONS.

1=2-6-6, 3=2-6-6 (size) Max Horz 1=32(LC 13) Max Uplift 1=-5(LC 16), 3=-8(LC 13) Max Grav 1=81(LC 2), 3=81(LC 2)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

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

referenced standard ANSI/TPI 1.



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LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 TCDL 10.0 BCLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.23 BC 0.12 WB 0.00	DEFL. Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P						Weight: 11 lb	FI = 20%
LUMBER-		BR	ACING-						

TOP CHORD

BOT CHORD

LUMBER-TOP CHORD

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

2x4 SPF No.2 REACTIONS. 1=4-2-6, 3=4-2-6 (size)

Max Horz 1=61(LC 15) Max Uplift 1=-10(LC 16), 3=-15(LC 13)

Max Grav 1=164(LC 20), 3=164(LC 20)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-1-2 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate
- DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 4-2-14 oc purlins,

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

except end verticals.

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LOADING (pst TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	f) 25.0 15.4/20.0 10.0 0.0 10.0	SPACING- 2- Plate Grip DOL 1 Lumber DOL 1 Rep Stress Incr Y Code IRC2018/TPI20	0-0 CSI. 1.15 TC 0.31 1.15 BC 0.17 YES WB 0.06 14 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (lc 0.00 0.00) -0.00	rc) l/defl 4 n/r 4 n/r 5 n/a	L/d 120 120 n/a	PLATES MT20 Weight: 30 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS OTHERS REACTIONS.	2x4 SPF No.2 2x4 SPF No.2 2x4 SPF No.2 2x4 SPF No.2 (size) 1=9-1 Max Horz 1=16 Max Uplift 5=-4: Max Grav 1=18	5-13, 5=9-6-13, 6=9-6-13 5(LC 13) 3(LC 13), 6=-75(LC 16) 1(LC 2), 5=198(LC 21), 6=49	92(LC 2)	BRACING- TOP CHORD BOT CHORD	Structural w except end v Rigid ceiling	ood sheathir verticals. directly app	ng directly app lied or 10-0-0	lied or 6-0-0 oc purlir oc bracing.	IS,
FORCES. (Ib) TOP CHORD WEBS) - Max. Comp./M 1-2=-253/165 2-6=-371/230	ax. 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=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 10-0-13 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
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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LOADING (ps TCLL (roof) Snow (Pf/Pg) TCDL BCLL	f) 25.0 15.4/20.0 10.0 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.21 BC 0.11 WB 0.04 Matrix-P	DEFL. Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 -0.00	(loc) 3 4 5	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 24 lb	GRIP 197/144 FT = 20%
BCDL	10.0									
LUMBER- TOP CHORD BOT CHORD	2x4 SPF No.2 2x4 SPF No.2		BI TC	RACING- DP CHORD	Structura except er	I wood	sheathin cals.	g directly ap	oplied or 6-0-0 oc purlin	ns,
WEBS	2x4 SPF No.2		BO	OT CHORD	Rigid ceil	ling dire	ectly appl	ied or 10-0-	0 oc bracing.	
OTHERS	2x4 SPF No.2				U	0	,		Ū	
REACTIONS.	(size) 1=7-	10-13, 5=7-10-13, 6=7-10-13								

Max Horz 1=136(LC 13)

Max Uplift 5=-42(LC 13), 6=-61(LC 16) Max Grav 1=112(LC 29), 5=208(LC 21), 6=400(LC 2)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. WEBS 2-6=-310/221

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 8-4-13 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



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LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 TCDL 10.0 DCLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.63 BC 0.32 WB 0.00	DEFL. Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.02 0.00	(loc) 3 3 4	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20	GRIP 197/144
BCDL 0.0 BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	- (-)					Weight: 18 lb	FT = 20%
LUMBER-		BR	ACING-						

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 BOT CHORD WEBS

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

REACTIONS. 1=6-2-13, 4=6-2-13 (size) Max Horz 1=107(LC 13) Max Uplift 1=-9(LC 16), 4=-50(LC 16) Max Grav 1=245(LC 2), 4=320(LC 21)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-4=-265/225

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-8-13 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4. 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

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

except end verticals.

November 23,2020







LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 TCDL 10.0 BCLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.29 BC 0.15 WB 0.00	DEFL. Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.01 0.00	(loc) 2 3 4	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20	GRIP 197/144
BCDL 10.0	Code IRC2018/1PI2014	Matrix-P						Weight: 13 lb	FI = 20%
LUMBER-		BR	ACING-						

TOP CHORD

BOT CHORD

LUMBER-TOP CHORD

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

WEBS 2x4 SPF No.2

REACTIONS. 1=4-6-13, 4=4-6-13 (size) Max Horz 1=78(LC 13) Max Uplift 1=-3(LC 16), 4=-43(LC 16) Max Grav 1=184(LC 21), 4=239(LC 21)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-0-13 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 4-7-5 oc purlins,

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

except end verticals.

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





2x4 💋

2x4 ||

LOADING (psf) TCLL (roof) 25.0 Snow (Pf/Pg) 15.4/20.0 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 0.07 BC 0.04 WB 0.00 Matrix-P	DEFL. in Vert(LL) 0.00 Vert(CT) 0.00 Horz(CT) 0.00	(loc) 2 3 4	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 8 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SPF No.: BOT CHORD 2x4 SPF No.: WEBS 2x4 SPF No.:		BRAC TOP (BOT (CING- CHORD Structur except (CHORD Rigid ce	al wood end verti eiling dire	sheathin cals. ectly appl	g directly a ied or 10-0-	pplied or 2-11-5 oc pu -0 oc bracing.	rlins,

REACTIONS. (size) 1=2-10-13, 4=2-10-13 Max Horz 1=49(LC 13) Max Uplift 4=-37(LC 16) Max Grav 1=94(LC 21), 4=150(LC 21)

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=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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