



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

Re: 3008832 C&H/156 Cobey

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: I49261217 thru I49261281

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

Missouri COA: Engineering 001193



December 16,2021

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



16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/156 Cobey	
						I49261217
3008832	A1	Roof Special Girder	1	2		
				5	Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.	430 s Aug	16 2021 MiTek Industries, Inc. Tue Dec 14 14:40:47 2021	Page 2

ID:cHSbhP3Ybgcv?UC2L7?eKUz02xT-_oCzBciWOGG1kUoSvkwJZD93ewdN4PFGgxciX5y90ck

LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-2=-70, 2-6=-70, 6-14=-70, 6-13=-20, 7-8=-20

Concentrated Loads (lb)

Vert: 10=-633(B) 15=-640(B) 17=-633(B) 18=-633(B) 19=-633(B) 20=-633(B) 21=-633(B) 22=-633(B) 23=-633(B) 24=-633(B) 25=-633(B) 26=-633(B) 27=-633(B) 26=-633(B) 26=-6





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 5-2-14, Exterior(2R) 5-2-14 to 8-2-14, Interior(1) 8-2-14 to 27-10-12 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 247 lb uplift at joint 6 and 228 lb uplift at joint 10.

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.



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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 5-2-14, Exterior(2R) 5-2-14 to 8-2-14 , Interior(1) 8-2-14 to 27-10-12 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) All plates are MT20 plates unless otherwise indicated.

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

5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify

capacity of bearing surface.6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 228 lb uplift at joint 10 and 247 lb uplift at joint 6.

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

8) 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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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) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 244 lb uplift at joint 6 and 229 lb uplift at joint 10.

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.



December 16,2021







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



	9-5-13	17-	-3-4	25-0-11	27-9-0
Plate Offsets (X,Y)	[5:0-6-11,0-0-0]	7-	9-7	1-9-1	2-6-5
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 0.76 BC 0.97 WB 0.46 Matrix-AS	DEFL. in Vert(LL) -0.33 Vert(CT) -0.63 Horz(CT) 0.22	(loc) I/defl L/d 7-13 >999 240 7-13 >527 180 6 n/a n/a	PLATES GRIP MT20 197/144 MT20HS 148/108 Weight: 130 lb FT = 20%
LUMBER- TOP CHORD 2x4 SP 4-6: 2x BOT CHORD 2x4 SP WEBS 2x4 SP	PF No.2 *Except* 8 SP 2400F 2.0E PF No.2 PF No.2		BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheathing dir Rigid ceiling directly applied. 1 Row at midpt 4	rectly applied, except end verticals.

REACTIONS. (size) 6=0-3-8, 10=Mechanical Max Horz 10=-316(LC 8) Max Uplift 6=-234(LC 13), 10=-233(LC 8)

Max Grav 6=1240(LC 1), 10=1236(LC 1)

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

- TOP CHORD 2-3=-1182/282, 3-4=-1399/272, 4-5=-2582/470, 5-6=-468/110
- BOT CHORD 9-10=0/725, 7-9=-329/2428, 5-7=-331/2421
- WEBS 4-9=-1369/401, 4-7=0/303, 2-9=-164/787, 2-10=-1220/278

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 9-5-13, Exterior(2R) 9-5-13 to 13-8-11, Interior(1) 13-8-11 to 27-7-4 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
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated
- 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) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 234 lb uplift at joint 6 and 233 lb uplift at joint 10.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.







	6-0-0	12-8-3	18-10-7		25-0-11		27-9-0
1	6-0-0 '	6-8-3	6-2-4	I	6-2-4	1	2-8-5
Plate Offsets (X,Y)	[4:0-3-4,0-3-0], [5:0-7-11,Edge], [10:0	4-4,0-2-0]					
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 0.85 BC 0.91 WB 0.93 Matrix-AS	DEFL.inVert(LL)-0.28Vert(CT)-0.51Horz(CT)0.24	(loc) l/de 7-15 >99 7-15 >64 6 n/	fl L/d 9 240 4 180 /a n/a	PLATES MT20 Weight: 135 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SP 4-6: 2x BOT CHORD 2x4 SP WEBS 2x4 SP	F No.2 *Except* 8 SP 2400F 2.0E F No.2 F No.2		BRACING- TOP CHORD BOT CHORD WEBS	Structural wo Rigid ceiling 1 Row at mic	bod sheathing direct directly applied. dpt 3-10	ly applied, except e	end verticals.
REACTIONS. (size Max H Max U Max G	e) 12=Mechanical, 6=0-3-8 orz 12=-276(LC 10) plift 12=-256(LC 8), 6=-212(LC 13) rav 12=1236(LC 1), 6=1240(LC 1)						
FORCES. (lb) - Max. TOP CHORD 1-12= 5-6=- 5-6=- BOT CHORD 2-10= WEBS 1-10=	Comp./Max. Ten All forces 250 (lb) 1176/247, 1-2=-1091/254, 2-3=-1104 468/102 515/217, 8-10=-127/1589, 7-8=-326/ 258/1476, 3-10=-617/160, 3-8=-79/6	or less except when shown. /259, 3-4=-1825/324, 4-5=- 2685, 5-7=-328/2677 29, 4-8=-1190/331, 4-7=0/2	2825/449, 57				
NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-16; V MWFRS (envelope) 16-11-2, Interior(1) 1 and forces & MWFR 3) Provide adequate dr 4) This truss has been 5) Refer to girder(s) for 6) Bearing at joint(s) 6 capacity of bearing s 7) Provide mechanical at joint 6. 8) This truss is designer referenced standard	e loads have been considered for this fult=115mph (3-second gust) Vasd=91 gable end zone and C-C Exterior(2E) 6-11-2 to 27-7-4 zone; cantilever left. S for reactions shown; Lumber DOL=ainage to prevent water ponding. designed for a 10.0 psf bottom chord truss to truss connections. considers parallel to grain value using surface. connection (by others) of truss to bea ed in accordance with the 2018 Interna ANSI/TPI 1.	design. mph; TCDL=6.0psf; BCDL= 0-1-12 to 3-1-12, Interior(1) and right exposed ; end vert 1.60 plate grip DOL=1.60 ive load nonconcurrent with ANSI/TPI 1 angle to grain f ing plate capable of withsta tional Residential Code sec	4.2psf; h=25ft; Cat. II; E> 3-1-12 to 12-8-3, Exterio ical left and right exposed any other live loads. ormula. Building designe nding 256 lb uplift at join tions R502.11.1 and R80	xp C; Enclose r(2R) 12-8-3 d;C-C for mer er should verif t 12 and 212 1 p2.10.2 and rd and 1/2" at	d; to nbers fy Ib uplift	STATE OF SCOT	MISSOUR

b) 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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LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except*	TOP CHORD	Structural wood sheathing directly applied or 5-1-13 oc purlins
	5-8: 2x8 SP 2400F 2.0E		except end verticals.
BOT CHORD	2x4 SPF No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
	12-13: 2x6 SPF No.2, 7-12: 2x6 SPF 2100F 1.8E		
WEBS	2x4 SPF No.2		
REACTIONS.	(size) 18=Mechanical, 8=0-3-8		
	Max Horz 18=-218(LC 6)		
	Max Uplift 18=-622(LC 4), 8=-723(LC 9)		
	Max Grav 18=3210(LC 1), 8=2901(LC 1)		
FORCES (Ib)	- Max Comp /Max Ten - All forces 250 (lb) or less excent when	shown	
	1-18-3042/580 1-2-1764/375 2-3-3842/672 3-4-5413/12	279 4-55413/1279	
	5-66057/1508 6-70116/2270 7-81107/200	10, 40= 0410/1210,	
	12 14 - 1526/226 2 14 - 1476/570 11 12 - 576/2017 10 11 - 1476/570 11 - 1476/570 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 11 - 576/2017 10 -	1004/5590	
BOT CHORD	13-14=-1330/320, 3-14=-1470/370, 11-13=-370/3917, 10-11=-	1234/3363,	
	9-10=-2104/8753, 7-9=-2104/8753		
WEBS	1-1/=-629/3409, 2-1/=-31/4/487, 13-1/=-2/4/1/87, 2-15=-50	8/3639, 13-15=-615/3345,	
	3-11=-804/1932, 4-11=-364/164, 5-10=-592/2182, 6-10=-3532	/969, 6-9=-300/1294	
NOTES-			
 2-ply truss to 	be connected together with 10d (0.131"x3") nails as follows:		
Top chords of	connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x8 - 2 rows stagge	ered at 0-9-0 oc.	

Bottom chords connected as follows: 2x4 - 1 row at 0-2-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

3) 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

4) Provide adequate drainage to prevent water ponding.

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) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 622 lb uplift at joint 18 and 723 lb uplift at joint 8.

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

10) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

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December 16,2021



Job	Truss	Truss Type	Qty	Ply	C&H/156 Cobey	
3008832	A8	Half Hip Girder	1	2		149261224
				2	Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.4	430 s Aug	16 2021 MiTek Industries, Inc. Tue Dec 14 14:41:05 2021	Page 2

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 14 14:41:05 2021 Page 2 ID:cHSbhP3Ybgcv?UC2L7?eKUz02xT-SGHmzmwp8nXUuFBvyWFXI?v7QAmxIaVvpkzfA3y90cS

NOTES-

- 11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 4-0-0 oc max. starting at 1-6-10 from the left end to 15-6-10 to connect truss(es) to front face of bottom chord.
- 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 17-6-10 from the left end to 23-6-10 to connect truss(es) to front 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). 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: 1-5=-70, 5-7=-70, 7-8=-92, 16-18=-20, 13-19=-20, 14-15=-20
- Concentrated Loads (lb)
- Vert: 10=-292(F) 23=-292(F) 24=-292(F) 25=-292(F) 26=-292(F) 27=-292(F) 28=-292(F) 29=-286(F) 30=-286(F) 31=-286(F) 32=-385(F) 33=-330(F) 2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-5=-58, 5-7=-58, 7-8=-79, 16-18=-20, 13-19=-20, 14-15=-20
- Concentrated Loads (lb)
- Vert: 10=-250(F) 23=-250(F) 24=-250(F) 25=-250(F) 26=-250(F) 27=-250(F) 28=-250(F) 29=-244(F) 30=-244(F) 31=-244(F) 32=-330(F) 33=-330(F) 33=-330(F) 33=-330(F) 32=-330(F) 32=-3
- Uniform Loads (plf)
- Vert: 1-5=-20, 5-7=-20, 7-8=-42, 16-18=-40, 13-19=-40, 14-15=-40 Concentrated Loads (lb)
- Vert: 10=-179(F) 23=-179(F) 24=-179(F) 25=-179(F) 26=-179(F) 27=-179(F) 28=-179(F) 29=-166(F) 30=-166(F) 31=-166(F) 32=-249(F) 33=-330(F) 4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
 - Uniform Loads (plf)
 - Vert: 1-5=29, 5-7=15, 7-8=6, 16-18=-8, 13-19=-8, 14-15=-8
 - Horz: 1-18=17, 5-8=27
 - Concentrated Loads (lb)
- Vert: 10=113(F) 23=113(F) 24=113(F) 25=113(F) 26=113(F) 27=113(F) 28=113(F) 29=94(F) 30=86(F) 31=84(F) 32=116(F) 33=-330(F) 5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
 - Vert: 1-5=29, 5-7=17, 7-8=8, 16-18=-8, 13-19=-8, 14-15=-8
 - Horz: 1-18=-22, 5-8=29
- Concentrated Loads (lb)
- Vert: 10=113(F) 23=113(F) 24=113(F) 25=113(F) 26=113(F) 27=113(F) 28=113(F) 29=94(F) 30=86(F) 31=84(F) 32=116(F) 33=-330(F) 6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60
- Uniform Loads (plf)
 - Vert: 1-5=9, 5-7=-5, 7-8=-26, 16-18=-20, 13-19=-20, 14-15=-20
 - Horz: 1-18=28, 5-8=15
 - Concentrated Loads (lb)

Vert: 10=124(F) 23=124(F) 24=124(F) 25=124(F) 26=124(F) 27=124(F) 28=124(F) 29=106(F) 30=97(F) 31=95(F) 32=128(F) 33=-330(F) 7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

- Uniform Loads (plf)
 - Vert: 1-5=9, 5-7=-2, 7-8=-24, 16-18=-20, 13-19=-20, 14-15=-20
- Horz: 1-18=-10, 5-8=18
- Concentrated Loads (lb)
- Vert: 10=124(F) 23=124(F) 24=124(F) 25=124(F) 26=124(F) 27=124(F) 28=124(F) 29=106(F) 30=97(F) 31=95(F) 32=128(F) 33=-330(F)
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
 - Vert: 1-22=29, 5-22=11, 5-7=11, 7-8=2, 16-18=-8, 13-19=-8, 14-15=-8
 - Horz: 1-18=14, 5-8=23
- Concentrated Loads (lb)
 - Vert: 10=113(F) 23=113(F) 24=113(F) 25=113(F) 26=113(F) 27=113(F) 28=113(F) 29=94(F) 30=86(F) 31=84(F) 32=116(F)
- 33=-330(F)
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
 - Vert: 1-22=11, 5-22=29, 5-7=29, 7-8=20, 16-18=-8, 13-19=-8, 14-15=-8
 - Horz: 1-18=-20, 5-8=41
- Concentrated Loads (lb)
 - Vert: 10=113(F) 23=113(F) 24=113(F) 25=113(F) 26=113(F) 27=113(F) 28=113(F) 29=94(F) 30=86(F) 31=84(F) 32=116(F)
- 33=-330(F)
- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
 - Vert: 1-22=16, 5-22=6, 5-7=6, 7-8=-3, 16-18=-8, 13-19=-8, 14-15=-8
 - Horz: 1-18=7, 5-8=18
 - Concentrated Loads (lb)
 - Vert: 10=113(F) 23=113(F) 24=113(F) 25=113(F) 26=113(F) 27=113(F) 28=113(F) 29=94(F) 30=86(F) 31=84(F) 32=116(F)
- 33=-330(F
- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
 - Uniform Loads (plf)
 - Vert: 1-22=6, 5-22=16, 5-7=16, 7-8=7, 16-18=-8, 13-19=-8, 14-15=-8
 - Horz: 1-18=-15, 5-8=28
 - Concentrated Loads (lb)
 - Vert: 10=113(F) 23=113(F) 24=113(F) 25=113(F) 26=113(F) 27=113(F) 28=113(F) 29=94(F) 30=86(F) 31=84(F) 32=116(F) 33=-330(F)

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Job		Truss	Truss Type	Qty	Ply	C&H/156 Cobey						
3008832		A8	Half Hip Girder	1	2	Job Reference (ontional)	149261224					
Builders Fi	stSource (Valley	Center), Valley Center, K	S - 67147,	8.4 8.4	430 s Aug	16 2021 MiTek Industries, Inc. Tue D	ec 14 14:41:05 2021 Page 3					
LOAD CAS 12) Dead - Uniforr	SE(S) Standard - 0.6 MWFRS W n Loads (plf) Vert: 1-22=9, 5	l /ind (Neg. Internal) 1st Parall 5-22=-9, 5-7=-9, 7-8=-30, 16-	el: Lumber Increase=1.60, Plate Increase=1 18=-20, 13-19=-20, 14-15=-20	.60	OZLI PERG							
Conce	ntrated Loads (II Vert: 10=124(0.6 MWFRS W	ν, 5-8=11 5) F) 23=124(F) 24=124(F) 25= /ind (Neg. Internal) 2nd Paral	124(F) 26=124(F) 27=124(F) 28=124(F) 29= lel: Lumber Increase=1.60. Plate Increase=	=106(F) 30=97 1.60	7(F) 31=9	5(F) 32=128(F) 33=-330(F)						
Uniforr	n Loads (plf) Vert: 1-22=-9, Horz: 1-18=-8	5-22=9, 5-7=9, 7-8=-13, 16- , 5-8=29	18=-20, 13-19=-20, 14-15=-20									
Conce 14) Dead: Uniforr	ntrated Loads (II Vert: 10=124(Lumber Increase n Loads (plf)	b) F) 23=124(F) 24=124(F) 25= e=0.90, Plate Increase=0.90	124(F) 26=124(F) 27=124(F) 28=124(F) 29= Plt. metal=0.90	=106(F) 30=97	7(F) 31=9	5(F) 32=128(F) 33=-330(F)						
Conce	Vert: 1-5=-20, 5-7=-20, 7-8=-42, 16-18=-20, 13-19=-20, 14-15=-20 Concentrated Loads (lb) Vert: 10=-125(F) 23=-125(F) 24=-125(F) 25=-125(F) 26=-125(F) 27=-125(F) 28=-125(F) 29=-117(F) 30=-117(F) 31=-117(F) 32=-168(F) 33=-330(F) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWERS Wind (Neg. Int) Left): Lumber Increase=1.60. Plate Increase=1.60											
Unifor	n Loads (plf) Vert: 1-5=-36, Horz: 1-18=21	5-7=-46, 7-8=-68, 16-18=-20 , 5-8=11	, 13-19=-20, 14-15=-20									
16) Dead - Uniforr	Vert: 10=80(F - 0.75 Roof Live n Loads (plf)) 23=80(F) 24=80(F) 25=80(F (bal.) + 0.75(0.6 MWFRS W	7) 26=80(F) 27=80(F) 28=80(F) 29=67(F) 30 nd (Neg. Int) Right): Lumber Increase=1.60,)=61(F) 31=59 , Plate Increas	9(F) 32=77 se=1.60	7(F) 33=-330(F)						
Conce	Vert: 1-5=-36, Horz: 1-18=-7 ntrated Loads (II Vert: 10=80/F	5-7=-44, 7-8=-66, 16-18=-20 , 5-8=13 b)) 23=80(E) 24=80(E) 25=80(E)	, 13-19=-20, 14-15=-20)=61(F) 31=59)(F) 32=77	7/F) 33330/F)						
17) Dead - Uniforr	- 0.75 Roof Live n Loads (plf) Vert: 1-22=-36	(bal.) + 0.75(0.6 MWFRS W	nd (Neg. Int) 1st Parallel): Lumber Increase , 16-18=-20, 13-19=-20, 14-15=-20	=1.60, Plate I	ncrease=	1.60						
Conce 18) Dead +	Horz: 1-18=19 ntrated Loads (II Vert: 10=80(F - 0.75 Roof Live	9, 5-8=9 5)) 23=80(F) 24=80(F) 25=80(F (bal.) + 0.75(0.6 MWFRS W	-) 26=80(F) 27=80(F) 28=80(F) 29=67(F) 30 nd (Neg. Int) 2nd Parallel): Lumber Increase	9=61(F) 31=59 ∋=1.60, Plate	9(F) 32=77 Increase=	7(F) 33=-330(F) :1.60						
Uniforr	n Loads (plf) Vert: 1-22=-49 Horz: 1-18=-6 ntrated Loads (II	9, 5-22=-36, 5-7=-36, 7-8=-57 , 5-8=22)	, 16-18=-20, 13-19=-20, 14-15=-20									
19) Dead - Uniforr	Vert: 10=80(F - 0.6 MWFRS W n Loads (plf)) 23=80(F) 24=80(F) 25=80(F /ind Min. Left: Lumber Increa	F) 26=80(F) 27=80(F) 28=80(F) 29=67(F) 30 se=1.60, Plate Increase=1.60	0=61(F) 31=59	9(F) 32=77	7(F) 33=-330(F)						
Conce	Vert: 1-5=-12, Horz: 1-18=16 ntrated Loads (II Vert: 10=93(F	5-7=-12, 7-8=-21, 16-18=-8, 5 0)) 23=93(F) 24=93(F) 25=93(F	13-19=-8, 14-15=-8 -) 26=93(F) 27=93(F) 28=93(F) 29=73(F) 30)=65(F) 31=63	3(F) 32=87	7(F) 33=-330(F)						
20) Dead + Uniforr	- 0.6 MWFRS W n Loads (plf) Vert: 1-5=-12,	vind Min. Right: Lumber Incre 5-7=-15, 7-8=-24, 16-18=-8,	ase=1.60, Plate Increase=1.60 13-19=-8, 14-15=-8									
Conce	Horz: 5-8=-3 ntrated Loads (II Vert: 10=93(F) 33=-330(F)	b)) 23=93(F) 24=93(F) 25=93(F	⁻) 26=93(F) 27=93(F) 28=93(F) 29=73(F) 30)=65(F) 31=63	3(F) 32=87	7(F)						
21) Revers Uniforr	al: Dead + 0.6 M n Loads (plf) Vert: 1-5=29, 4	MWFRS Wind (Pos. Internal) 5-7=15, 7-8=6, 16-18=-8, 13-	Left: Lumber Increase=1.60, Plate Increase 19=-8, 14-15=-8	=1.60								
Conce	Horz: 1-18=17 ntrated Loads (II Vert: 10=-234 32=-184(F) 33	', 5-8=27 b) (F) 23=-235(F) 24=-235(F) 2 3=-330(F)	5=-234(F) 26=-234(F) 27=-234(F) 28=-234(F)	^F) 29=-176(F)	30=-128(F) 31=-97(F)						
22) Revers Uniforr	al: Dead + 0.6 M n Loads (plf) Vert: 1-5=29, 4	MWFRS Wind (Pos. Internal) 5-7=17, 7-8=8, 16-18=-8, 13-	Right: Lumber Increase=1.60, Plate Increas 19=-8, 14-15=-8	se=1.60								
Conce	Horz: 1-18=-2 ntrated Loads (II Vert: 10=-234 32=-184(F) 33	2, 5-8=29 5) (F) 23=-235(F) 24=-235(F) 2 3=-330(F)	5=-234(F) 26=-234(F) 27=-234(F) 28=-234(F)	^F) 29=-176(F)	30=-128(F) 31=-97(F)						
23) Revers Uniforr	al: Dead + 0.6 M n Loads (plf) Vert: 1-5=9, 5	MWFRS Wind (Neg. Internal)	Left: Lumber Increase=1.60, Plate Increase 3-19=-20, 14-15=-20	e=1.60								
Conce	Horz: 1-18=28 ntrated Loads (II Vert: 10=-222 32=-172(F) 33	s, 5-8=15 5) (F) 23=-224(F) 24=-224(F) 25 ≒=-330(F)	5=-222(F) 26=-222(F) 27=-222(F) 28=-222(F	⁻) 29=-165(F)	30=-117(F) 31=-85(F)						

Continued on page 4



Job	Truss	Truss Type	Qty	Ply	C&H/156 Cobey
2000000				-	149261224
3008832	A8	Hair Hip Girder	1	2	Job Reference (optional)
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.4	430 s Aug	16 2021 MiTek Industries, Inc. Tue Dec 14 14:41:05 2021 Page 4
		ID:cHSbhP	3Ybgcv?U	IC2L7?eK	Jz02xT-SGHmzmwp8nXUuFBvyWFXI?v7QAmxIaVvpkzfA3y90cS
LOAD CASE(S) Standard					
24) Reversal: Dead + 0.6 N	IWFRS Wind (Neg. Internal)	Right: Lumber Increase=1.60, Plate Increase=1	.60		
Vert: 1-5=9, 5-	7=-2, 7-8=-24, 16-18=-20, 13	3-19=-20, 14-15=-20			
Horz: 1-18=-10), 5-8=18	10-20, 11 10-20			
Concentrated Loads (It)) 			~	
Vert: 10=-222(25) Reversal: Dead + 0.6 M	F) 23=-224(F) 24=-224(F) 25 /WERS Wind (Pos. Internal))=-222(F) 26=-222(F) 27=-222(F) 28=-222(F) 29 1st Parallel: Lumber Increase–1.60. Plate Incre	l=-165(F) sse−1 60	30=-117(F) 31=-85(F) 32=-172(F) 33=-330(F)
Uniform Loads (plf)			130-1.00		
Vert: 1-22=29,	5-22=11, 5-7=11, 7-8=2, 16-	18=-8, 13-19=-8, 14-15=-8			
Horz: 1-18=14 Concentrated Loads (Ik	, 5-8=23				
Vert: 10=-234(7) F) 23=-235(F) 24=-235(F) 25	5=-234(F) 26=-234(F) 27=-234(F) 28=-234(F) 29	=-176(F)	30=-128(F) 31=-97(F) 32=-184(F) 33=-330(F)
26) Reversal: Dead + 0.6 N	WFRS Wind (Pos. Internal)	2nd Parallel: Lumber Increase=1.60, Plate Incre	ase=1.60)	
Uniform Loads (plf)	5-22-20 5-7-20 7-8-20 16	8-188 13-108 14-158			
Horz: 1-18=-20	0, 5-8=41	10-0, 10 10-0, 14 10-0			
Concentrated Loads (It))				
Vert: 10=-234(F) 23=-235(F) 24=-235(F) 25	5=-234(F) 26=-234(F) 27=-234(F) 28=-234(F) 29	=-176(F)	30=-128(F) 31=-97(F) 32=-184(F) 33=-330(F)
Uniform Loads (plf)	INFRO WING (FOS. Internal)	Sid Falallel. Lumber increase=1.00, Flate incre	ase=1.00		
Vert: 1-22=16,	5-22=6, 5-7=6, 7-8=-3, 16-18	8=-8, 13-19=-8, 14-15=-8			
Horz: 1-18=7,	5-8=18				
Vert: 10=-234) F) 23=-235(F) 24=-235(F) 25	=-234(F) 26=-234(F) 27=-234(F) 28=-234(F) 29	=-176(F)	30=-128(F) 31=-97(F) 32=-184(F) 33=-330(F)
28) Reversal: Dead + 0.6 N	WFRS Wind (Pos. Internal)	4th Parallel: Lumber Increase=1.60, Plate Incre	ase=1.60		
Uniform Loads (plf)		0 0 40 40 0 44 45 0			
Vert: 1-22=6, 5 Horz: 1-18=-15	5. 5-8=28	8=-8, 13-19=-8, 14-15=-8			
Concentrated Loads (It))				
Vert: 10=-234(F) 23=-235(F) 24=-235(F) 25	5=-234(F) 26=-234(F) 27=-234(F) 28=-234(F) 29	=-176(F)	30=-128(F) 31=-97(F) 32=-184(F) 33=-330(F)
Uniform Loads (plf)	INFRS Wind (Neg. Internal)	Tst Parallel: Lumber Increase=1.00, Plate Incre	ase=1.60		
Vert: 1-22=9, 5	5-22=-9, 5-7=-9, 7-8=-30, 16-	18=-20, 13-19=-20, 14-15=-20			
Horz: 1-18=26	, 5-8=11				
Vert: 10=-222) F) 23=-224(F) 24=-224(F) 25	;=-222(F) 26=-222(F) 27=-222(F) 28=-222(F) 29	=-165(F)	30=-117(F) 31=-85(F) 32=-172(F) 33=-330(F)
30) Reversal: Dead + 0.6 M	/WFRS Wind (Neg. Internal)	2nd Parallel: Lumber Increase=1.60, Plate Incre	ease=1.60)	
Uniform Loads (plf)		0 00 40 40 00 44 45 00			
Vert: 1-22=-9, Horz: 1-18=-8.	5-22=9, 5-7=9, 7-8=-13, 16-1 5-8=29	8=-20, 13-19=-20, 14-15=-20			
Concentrated Loads (It	o)				
Vert: 10=-222(F) 23=-224(F) 24=-224(F) 25	5=-222(F) 26=-222(F) 27=-222(F) 28=-222(F) 29	=-165(F)	30=-117(F) 31=-85(F) 32=-172(F) 33=-330(F)
Uniform Loads (plf)	ROOI LIVE (Dal.) + 0.75(0.6 W	WFRS wind (Neg. Int) Leit): Lumber increase=	1.60, Plat	e increas	9=1.60
Vert: 1-5=-36,	5-7=-46, 7-8=-68, 16-18=-20	, 13-19=-20, 14-15=-20			
Horz: 1-18=21	, 5-8=11				
Vert: 10=-292	7) F) 23=-293(F) 24=-293(F) 25	=-292(F) 26=-292(F) 27=-292(F) 28=-292(F) 29	=-248(F)	30=-212(F) 31=-188(F)
32=-276(F) 33	=-330(F)		- ()		
32) Reversal: Dead + 0.75	Roof Live (bal.) + 0.75(0.6 M	WFRS Wind (Neg. Int) Right): Lumber Increase	=1.60, Pla	ate Increa	se=1.60
Vert: 1-5=-36,	5-7=-44, 7-8=-66, 16-18=-20	, 13-19=-20, 14-15=-20			
Horz: 1-18=-7,	5-8=13				
Concentrated Loads (lt)) E) 22- 202(E) 24- 202(E) 25	- 202/E) 26- 202/E) 27- 202/E) 28- 202/E) 2	- 249(E)	20- 2120	E) 21_ 199/E)
32=-276(F) 33	=-330(F)	==232(F) 20==232(F) 27==232(F) 20==232(F) 23	=-240(F)	30=-212(r) 31=-100(r)
33) Reversal: Dead + 0.75	Roof Live (bal.) + 0.75(0.6 M	WFRS Wind (Neg. Int) 1st Parallel): Lumber Inc	rease=1.	60, Plate	
Increase=1.60					
Vert: 1-22=-36	, 5-22=-49, 5-7=-49, 7-8=-71	, 16-18=-20, 13-19=-20, 14-15=-20			
Horz: 1-18=19	, 5-8=9				
Concentrated Loads (It)) E) 23203(E) 24203(E) 25			302120	E) 31188(E)
32=-276(F) 33	=-330(F)		=-240(I)	50=-212(() 31100(1)
34) Reversal: Dead + 0.75	Roof Live (bal.) + 0.75(0.6 M	WFRS Wind (Neg. Int) 2nd Parallel): Lumber In	crease=1	.60, Plate	
Increase=1.60					
Vert: 1-22=-49	, 5-22=-36, 5-7=-36, 7-8=-57	, 16-18=-20, 13-19=-20, 14-15=-20			
Horz: 1-18=-6,	5-8=22				
Concentrated Loads (lt Vert: 10202/)) F) 23=-293(F) 24=-293(F) 25	=-292(F) 26=-292(F) 27=-292(F) 28292(F) 20	=-248(F)	30=-2120	F) 31=-188(F)
32=-276(F) 33	=-330(F)	202(.) + 20- 202(.) + 2 202(.) + 20- 202	2 (0(i)	20-212(.,
35) Reversal: Dead + 0.6 M	WFRS Wind Min. Left: Lumb	per Increase=1.60, Plate Increase=1.60			

Continued on page 5



Job	Truss	Truss Type	Qty	Ply	C&H/156 Cobey	
						I49261224
3008832	A8	Half Hip Girder	1	2	. lob Reference (optional)	
Builders FirstSource (Valley	Center). Vallev Center, K	S - 67147.	8.4	430 s Aug	16 2021 MiTek Industries, Inc. Tue Dec 14 14:41:05 2021	Page 5

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

ID:cHSbhP3Ybgcv?UC2L7?eKUz02xT-SGHmzmwp8nXUuFBvyWFXI?v7QAmxIaVvpkzfA3y90cS

LOAD CASE(S) Standard Uniform Loads (plf)

Vert: 1-5=-12, 5-7=-12, 7-8=-21, 16-18=-8, 13-19=-8, 14-15=-8

Horz: 1-18=16

Concentrated Loads (lb)

Vert: 10=-214(F) 23=-216(F) 24=-216(F) 25=-214(F) 26=-214(F) 27=-214(F) 28=-214(F) 29=-155(F) 30=-107(F) 31=-76(F) 32=-152(F) 33=-330(F) 36) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-5=-12, 5-7=-15, 7-8=-24, 16-18=-8, 13-19=-8, 14-15=-8

Horz: 5-8=-3 Concentrated Loads (lb)

Vert: 10=-214(F) 23=-216(F) 24=-216(F) 25=-214(F) 26=-214(F) 27=-214(F) 28=-214(F) 29=-155(F) 30=-107(F) 31=-76(F) 32=-152(F) 33=-330(F)







F



BOT CHORD 1-9=-184/861, 7-9=-86/874

WEBS 4-9=-86/521, 5-9=-322/211, 3-9=-281/201

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) 0-3-8 to 3-3-8, Interior(1) 3-3-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=134, 7=156.

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



REACTIONS. (size) 2=0-3-8, 8=0-3-8 Max Horz 2=-189(LC 10) Max Uplift 2=-158(LC 12), 8=-158(LC 13)

Max Grav 2=961(LC 1), 8=961(LC 1)

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

TOP CHORD 2-4=-1006/216, 4-5=-896/205, 5-6=-896/205, 6-8=-1006/216

BOT CHORD 2-10=-195/907. 8-10=-88/890

WEBS 5-10=-90/545, 6-10=-320/211, 4-10=-320/210

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=158, 8=158.

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 ·





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

TOP CHORD 1-3=-1083/210, 3-4=-872/202, 4-5=-877/203, 5-7=-989/215

BOT CHORD 1-8=-195/854, 7-8=-106/880

WEBS 4-8=-87/522, 5-8=-326/211, 3-8=-281/201

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) 0-3-8 to 3-3-8, Interior(1) 3-3-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-0-0 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) Refer to girder(s) for truss to truss connections.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=134, 7=136.

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.



Mitek° 16023 Swingley Ridge Rd Chesterfield, MO 63017



2x4 SPF No.2 TOP CHORD BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2 SLIDER Right 2x6 SPF No.2 2-0-0 TOP CHORD BOT CHORD

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

REACTIONS. (size) 8=6-3-12, 5=0-3-8 Max Horz 8=-263(LC 8) Max Uplift 8=-136(LC 8), 5=-105(LC 13) Max Grav 8=639(LC 26), 5=639(LC 1)

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

2-3=-687/307, 3-5=-569/172 TOP CHORD

BOT CHORD 7-8=-39/294, 3-7=-438/278, 5-6=-30/474

WEBS 2-7=-266/653, 2-8=-485/241

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 4-0-7, Exterior(2R) 4-0-7 to 6-10-8, Interior(1) 6-10-8 to 14-4-4 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=136, 5=105.

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.



December 16,2021





WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-74/3 rev. 5/19/2020 BEFORE USE. Design valid for use only with MITER® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd Chesterfield, MO 63017

MiTek

Job	Truss	Truss Type	Qty	Ply	C&H/156 Cobey	
						I49261230
3008832	C1	Half Hip Girder	1	2		
				2	Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.4	430 s Aug	16 2021 MiTek Industries, Inc. Tue Dec 14 14:41:30 2021	Page 2

ID:cHSbhP3Ybgcv?UC2L7?eKUz02xT-E4IDDJDVGThxO5bjwGCOpHRPIFKefrwbZ7WTZ6y90c3

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, 8-10=-20, 6-7=-20

Concentrated Loads (lb)

Vert: 9=-3190(F) 13=-1216(F) 14=-1216(F) 15=-1216(F) 16=-1216(F)





	9-4-6 10-	<u>-0 16-0-0</u>	16-1-12	21-5-9		26-7-11		35-8-8 9-0-13			
Plate Offsets (X,Y)	[5:0-4-0,0-1-9], [9:0-4-0,0-1-9], [12:0	7-9,Edge], [17:0-3-0	,0-0-8]	0010		021					
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 0.44 BC 0.74 WB 0.3 Matrix-AS	5 5 1	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.28 -0.58 0.04	(loc) l/defl 13-15 >842 13-15 >407 12 n/a	L/d 240 180 n/a	PLATES MT20 MT20HS Weight: 158 lb	GRIP 197/144 148/108 FT = 20%		
LUMBER- TOP CHORD 2x4 SP BOT CHORD 2x4 SP WEBS 2x4 SP SLIDER Left 2x	PF No.2 PF No.2 PF No.2 PF No.2 4 SPF No.2 2-0-0, Right 2x6 SPF No.2	2 2-0-0		BRACING- TOP CHOR BOT CHOR WEBS	D D	Structural woo Rigid ceiling d 1 Row at midp	od sheathing dire irectly applied. ot 8-	ectly applied. 15			
REACTIONS. (size) 12=Mechanical, 2=0-3-8, 15=0-3-8 Max Horz 2=171(LC 9) Max Uplift 12=-220(LC 13), 2=-157(LC 12), 15=-305(LC 9) Max Grav 12=838(LC 26), 2=721(LC 25), 15=1743(LC 1)											
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. TOP CHORD 2-4=-707/205, 4-5=-541/179, 5-6=-407/201, 8-9=-637/306, 9-10=-841/308, 10-12=-1022/328 BOT CHORD 2-20=-202/599, 19-20=-50/269, 17-18=-399/116, 15-16=-1009/261, 6-16=-899/276, 13-15=-75/426, 12-13=-190/788 WEBS 4-20=-309/182, 18-20=-24/448, 8-15=-817/181, 8-13=-4/361, 6-18=-165/682											
NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-16; V MWFRS (envelope) Interior(1) 14-5-7 to end vertical left and DOL=1.60 3) Provide adequate dr 4) All plates are MT20 5) This truss has been 6) Refer to girder(s) for 7) Provide mechanical 12=220, 2=157, 15= 8) This truss is designe referenced standard 9) This truss design references	e loads have been considered for this (ult=115mph (3-second gust) Vasd=5 gable end zone and C-C Exterior(2E 26-7-11, Exterior(2R) 26-7-11 to 31- right exposed;C-C for members and rainage to prevent water ponding. plates unless otherwise indicated. designed for a 10.0 psf bottom chord truss to truss connections. connection (by others) of truss to be 305. ed in accordance with the 2018 Interr ANSI/TPI 1. quires that a minimum of 7/16" struct	design. 1mph; TCDL=6.0psf) -0-10-8 to 2-8-11, I -12, Interior(1) 31-8- iorces & MWFRS for live load nonconcur aring plate capable o ational Residential C ural wood sheathing	; BCDL=4.2 nterior(1) 2- 12 to 35-8-4 r reactions s rrent with an of withstandi Code sectior be applied of	psf; h=25ft; Ca 8-11 to 9-4-6, E 8 zone; cantilev hown; Lumber y other live load ng 100 lb uplift ns R502.11.1 au directly to the to	t. II; Ex Exterior ver left DOL=' ds. at joint at joint nd R80 op chor	cp C; Enclosed r(2R) 9-4-6 to 7 and right expo 1.60 plate grip c(s) except (jt=1 (2.10.2 and rd and 1/2" gyp	; 14-5-7, sed ; b)	STATE OF SCOT	MISSOLA TT M. VIER		

sheetrock be applied directly to the bottom chord.



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Mitek° 16023 Swingley Ridge Rd Chesterfield, MO 63017



- BOT CHORD 2-8=-513/881, 7-8=-225/307
- WEBS 5-7=-386/261, 5-8=-380/739

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-10-6, Exterior(2E) 6-10-6 to 10-10-4 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) 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 7=118.
- 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.



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3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearing at joint(s) 6, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

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

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



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- MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-6-0, Corner(3R) 5-6-0 to 8-6-0, Exterior(2N) 8-6-0 to 11-0-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 2, 14, 12 except (jt=lb) 15=118, 11=118.
- 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.







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

Max Horz 6=77(LC 8) Max Uplift 6=-114(LC 8), 3=-50(LC 12), 4=-192(LC 3)

Max Grav 6=313(LC 1), 3=312(LC 3), 4=7(LC 12)

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

TOP CHORD 2-6=-281/275

WEBS 3-5=-66/280

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(3) -1-7-13 to 2-7-2, Exterior(2R) 2-7-2 to 3-8-14 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

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) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 6=114, 4=192.
- 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



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LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Peo Strass Incr. VES	CSI. TC 0.22 BC 0.04 WB 0.00	DEFL. in Vert(LL) -0.00 Vert(CT) -0.00 Herz(CT) 0.00	(loc) l/def 5 >999 5 >999	I L/d 9 240 9 180	PLATES MT20	GRIP 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MR	11012(01) 0.00	4 1/6	a 11/a	Weight: 8 lb	FT = 20%
LUMBER-			BRACING-				

TOP CHORD

BOT CHORD

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

REACTIONS. 4=Mechanical, 5=0-5-6 (size) Max Horz 5=72(LC 11) Max Uplift 4=-15(LC 9), 5=-127(LC 8) Max Grav 4=33(LC 3), 5=269(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-5=-236/265

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

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

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

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=127.

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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Structural wood sheathing directly applied or 2-0-5 oc purlins,

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

except end verticals.



LOADING (psf TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	sf) .0 .0 .0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TF	2-0-0 1.15 1.15 YES Pl2014	CSI. TC BC WB Matrix	0.44 0.54 0.53 x-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in 0.09 -0.18 0.06	(loc) 7-12 8-9 5	l/defl >999 >972 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 72 lb	GRIP 197/144 FT = 20%	

LUMBER-

2x4 SPF No.2 TOP CHORD BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2 SLIDER Right 2x4 SPF No.2 2-0-0

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 9=Mechanical, 5=0-3-8 Max Horz 9=-311(LC 8) Max Uplift 9=-142(LC 13), 5=-128(LC 13) Max Grav 9=653(LC 1), 5=718(LC 1)

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

TOP CHORD 2-3=-747/324, 3-5=-603/173

BOT CHORD 8-9=-120/301, 3-8=-494/301, 5-7=0/502

WEBS 2-8=-305/755, 2-9=-506/281

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 2-9-15, Exterior(2R) 2-9-15 to 5-9-15, Interior(1) 5-9-15 to 15-7-0 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) 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) 9=142, 5=128

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

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



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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 0.44 BC 0.56 WB 0.58 Matrix-AS	DEFL. in (Vert(LL) 0.09 8 Vert(CT) -0.18 9 Horz(CT) 0.06 10	(loc) I/defl L/d 3-13 >999 240 3-10 >951 180 6 n/a n/a	PLATES GRIP MT20 197/144 Weight: 75 lb FT = 20%
LUMBER- TOP CHORD 2x4 SPF No.2			BRACING- TOP CHORD S	tructural wood sheathing dire	ectly applied, except end verticals.

BOT CHORD

WEBS

Rigid ceiling directly applied.

1-10, 2-10

1 Row at midpt

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2 SLIDER Right 2x4 SPF No.2 2-0-0

REACTIONS. (size) 10=Mechanical, 6=0-3-8 Max Horz 10=-344(LC 8) Max Uplift 10=-170(LC 13), 6=-122(LC 13) Max Grav 10=653(LC 1), 6=718(LC 1)

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

2-4=-777/350, 4-6=-607/173 TOP CHORD

BOT CHORD 9-10=-219/373, 4-9=-534/324, 6-8=0/505

WEBS 2-9=-348/834, 2-10=-593/380

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 1-6-15, Exterior(2R) 1-6-15 to 4-6-15, Interior(1) 4-6-15 to 15-7-0 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) 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) 10=170, 6=122.

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

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



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Max Uplift 16=-217(LC 13), 7=-74(LC 13)

Max Grav 16=661(LC 1), 7=721(LC 1)

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

TOP CHORD 15-16=-609/184, 3-5=-1372/0, 5-7=-871/52

BOT CHORD 12-15=0/1213, 11-12=0/1217, 3-11=0/632, 7-9=0/611

WEBS 5-9=-498/0, 9-11=0/813, 5-11=0/530, 3-15=-1198/159, 2-17=-341/186

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 1-5-0, Exterior(2R) 1-5-0 to 4-5-0, Interior(1) 4-5-0 to 15-7-0 zone; cantilever left and right exposed ; end vertical 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) 7 except (jt=lb) 16=217.

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 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 0.31 BC 0.53 WB 0.56 Matrix-AS	DEFL. in (loc) l/defl L/d Vert(LL) -0.16 8-13 >999 240 Vert(CT) -0.31 8-13 >568 180 Horz(CT) 0.05 6 n/a n/a	PLATES GRIP MT20 197/144 Weight: 79 lb FT = 20%
LUMBER-			BRACING-	

TOP CHORD

BOT CHORD

LUMBER-

2x4 SPF No.2 TOP CHORD BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2 SLIDER Right 2x4 SPF No.2 2-0-0

REACTIONS. (size) 10=Mechanical, 6=0-3-8 Max Horz 10=-316(LC 8) Max Uplift 10=-145(LC 13), 6=-127(LC 13)

Max Grav 10=653(LC 1), 6=718(LC 1)

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

2-3=-496/242, 3-4=-516/163, 4-6=-745/171 TOP CHORD

BOT CHORD 9-10=-100/291, 8-9=-87/306, 6-8=-31/578

WEBS 2-9=-257/622, 2-10=-533/276, 4-8=-327/193

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 2-8-0, Exterior(2R) 2-8-0 to 6-10-15, Interior(1) 6-10-15 to 15-7-0 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) 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) 10=145, 6=127.

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

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



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.





BRACING-

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Right 2x4 SPF No.2 2-0-0

4 SPF No.2 ght 2x4 SPF No.2 2-0-0 (size) 10=Mechanical, 6=0-3-8

Max Horz 10=-283(LC 8) Max Uplift 10=-136(LC 8), 6=-131(LC 13) Max Grav 10=653(LC 1), 6=718(LC 1)

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

TOP CHORD 2-3=-454/220, 3-4=-515/164, 4-6=-746/172

BOT CHORD 9-10=-34/313, 8-9=-88/308, 6-8=-32/579

WEBS 4-8=-330/194, 2-9=-218/538, 2-10=-524/233

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 3-11-0, Exterior(2R) 3-11-0 to 8-1-15 , Interior(1) 8-1-15 to 15-7-0 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

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) 10=136, 6=131.

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

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



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

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

- TOP CHORD 1-9=-580/204, 1-2=-386/169, 2-3=-519/164, 3-5=-750/177
- BOT CHORD 8-9=-176/303, 7-8=-84/296, 5-7=-39/587

WEBS 1-8=-210/552, 3-7=-329/199

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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 5-2-0, Exterior(2R) 5-2-0 to 9-4-15, Interior(1) 9-4-15 to 15-7-0 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) Provide adequate drainage to prevent water ponding.

4) All plates are MT20 plates unless otherwise indicated

- 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) except (jt=lb) 9=137, 5=132.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) 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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EACTIONS. (size) 11=Mechanical, 5=0-3-8 Max Horz 11=-216(LC 8) Max Uplift 11=-138(LC 8), 5=-130(LC 13) Max Grav 11=653(LC 1), 5=718(LC 1)

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

- TOP CHORD 1-11=-551/186, 1-2=-480/173, 2-3=-599/168, 3-5=-739/173
- BOT CHORD 10-11=-137/264, 9-10=-258/214, 7-8=-9/289, 5-7=-44/600
- WEBS 7-9=-44/383, 1-9=-202/546

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 6-5-0, Exterior(2R) 6-5-0 to 10-6-7, Interior(1) 10-6-7 to 15-7-0 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) 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) 11=138, 5=130.

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.







	5-0-8		/-c	7-8-0		14-0-0		1	
)-8	2-7	-8		7-0-8		1	
sets (X,Y)	[3:0-4-0,0-1-9], [10:0-4-0),0-0-0]							
G (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.11 10-11	>999	240	MT20	197/144
10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.25 10-11	>709	180		
0.0	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.06 5	n/a	n/a		
10.0	Code IRC2018/T	PI2014	Matrix-AS					Weight: 64 lb	FT = 20%
	sets (X,Y) (psf) 25.0 10.0 0.0 10.0	Sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0] 6 (psf) SPACING- 25.0 Plate Grip DOL 10.0 Lumber DOL 0.0 Rep Stress Incr 10.0 Code IRC2018/T	SPACING- 2-0-8 5:0-8 5:0-8 sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] 5: (psf) SPACING- 2-0-0 25:0 Plate Grip DOL 1.15 10:0 Lumber DOL 1.15 0.0 Rep Stress Incr YES 10:0 Code IRC2018/TPI2014	Space Space CSI 25:0-8 2:7 Sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] Sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0]	Space Space 2-7-8 Sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] DEFL. 25.0 Plate Grip DOL 1.15 TC 0.43 10.0 Lumber DOL 1.15 BC 0.56 Vert(LL) 0.0 Rep Stress Incr YES WB 0.50 Horz(CT) 10.0 Code IRC2018/TPI2014 Matrix-AS Horz(CT)	Sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] Sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] Description Description Description Description </td <td>Space Color <th< td=""><td>Space 2-7-8 7-0-8 5-0-8 2-7-8 7-0-8 sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] CSI. DEFL. in (loc) I/defi L/d 25.0 Plate Grip DOL 1.15 TC 0.43 Vert(LL) -0.11 10-11 >999 240 10.0 Lumber DOL 1.15 BC 0.56 Vert(CT) -0.25 10-11 >709 180 10.0 Code IRC2018/TPI2014 Matrix-AS Matrix-AS Horz(CT) 0.06 5 n/a n/a</td><td>Solution Spacing 2-0-8 7-0-8 sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] 7-0-8 7-0-8 Solution (Sector) Spacing Dol (Sector) CSI. DEFL. in (loc) I/defl L/d 25:0 Plate Grip Dol (Sector) 1.15 TC (0.43) Vert(LL) -0.11 (0-11) >999 (240) MT20 10:0 Lumber DOL (Sector) 1.15 BC (0.56) Vert(CT) -0.25 (10-11) >709 (180) MT20 10:0 Code IRC2018/TPI2014 Matrix-AS Weight: 64 lb Weight: 64 lb</td></th<></td>	Space Color Color <th< td=""><td>Space 2-7-8 7-0-8 5-0-8 2-7-8 7-0-8 sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] CSI. DEFL. in (loc) I/defi L/d 25.0 Plate Grip DOL 1.15 TC 0.43 Vert(LL) -0.11 10-11 >999 240 10.0 Lumber DOL 1.15 BC 0.56 Vert(CT) -0.25 10-11 >709 180 10.0 Code IRC2018/TPI2014 Matrix-AS Matrix-AS Horz(CT) 0.06 5 n/a n/a</td><td>Solution Spacing 2-0-8 7-0-8 sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] 7-0-8 7-0-8 Solution (Sector) Spacing Dol (Sector) CSI. DEFL. in (loc) I/defl L/d 25:0 Plate Grip Dol (Sector) 1.15 TC (0.43) Vert(LL) -0.11 (0-11) >999 (240) MT20 10:0 Lumber DOL (Sector) 1.15 BC (0.56) Vert(CT) -0.25 (10-11) >709 (180) MT20 10:0 Code IRC2018/TPI2014 Matrix-AS Weight: 64 lb Weight: 64 lb</td></th<>	Space 2-7-8 7-0-8 5-0-8 2-7-8 7-0-8 sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] CSI. DEFL. in (loc) I/defi L/d 25.0 Plate Grip DOL 1.15 TC 0.43 Vert(LL) -0.11 10-11 >999 240 10.0 Lumber DOL 1.15 BC 0.56 Vert(CT) -0.25 10-11 >709 180 10.0 Code IRC2018/TPI2014 Matrix-AS Matrix-AS Horz(CT) 0.06 5 n/a n/a	Solution Spacing 2-0-8 7-0-8 sets (X,Y) [3:0-4-0,0-1-9], [10:0-4-0,0-0-0] 7-0-8 7-0-8 Solution (Sector) Spacing Dol (Sector) CSI. DEFL. in (loc) I/defl L/d 25:0 Plate Grip Dol (Sector) 1.15 TC (0.43) Vert(LL) -0.11 (0-11) >999 (240) MT20 10:0 Lumber DOL (Sector) 1.15 BC (0.56) Vert(CT) -0.25 (10-11) >709 (180) MT20 10:0 Code IRC2018/TPI2014 Matrix-AS Weight: 64 lb Weight: 64 lb

LUMBER-

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Right 2x4 SPF No.2 2-0-0

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 11=Mechanical, 5=0-3-8 Max Horz 11=-183(LC 8) Max Uplift 11=-140(LC 8), 5=-125(LC 13) Max Grav 11=653(LC 1), 5=718(LC 1)

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

TOP CHORD 2-3=-575/183, 3-5=-695/159

BOT CHORD 10-11=-89/429, 7-8=-14/322, 5-7=0/524

WEBS 7-9=0/285, 2-11=-564/187, 2-9=-101/275

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 7-8-0, Exterior(2R) 7-8-0 to 11-10-15, Interior(1) 11-10-15 to 15-7-0 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

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) 11=140, 5=125.

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.






TOP CHORD 2-3=-650/193, 3-5=-597/169

BOT CHORD 10-11=-29/645, 9-10=-15/318, 7-8=-14/327, 5-7=0/497

WEBS 7-9=0/306, 3-9=-38/397, 2-9=-304/92, 2-11=-675/212

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 7-2-8, Exterior(2R) 7-2-8 to 10-2-8, Interior(1) 10-2-8 to 15-7-0 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) 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) 11=121, 5=127.

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

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



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MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-2-8, Exterior(2R) 7-2-8 to 10-2-8, Interior(1) 10-2-8 to 15-7-0 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) 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) 11=112, 5=128.

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.







REACTIONS. (size) 11=Mechanical, 6=0-3-8 Max Horz 11=-159(LC 8) Max Uplift 11=-106(LC 12), 6=-128(LC 13)

Max Grav 11=653(LC 1), 6=718(LC 1)

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

TOP CHORD 3-4=-658/188, 4-6=-591/173

BOT CHORD 9-10=-95/537, 8-9=-96/580, 6-8=-12/492

WEBS 3-9=-647/169, 4-8=-16/320

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 3-0-0, Interior(1) 3-0-0 to 7-2-8, Exterior(2R) 7-2-8 to 10-2-8, Interior(1) 10-2-8 to 15-7-0 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) 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) 11=106, 6=128.

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

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









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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) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 7-2-8, Exterior(2R) 7-2-8 to 10-2-8, Interior(1) 10-2-8 to 15-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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) 1 except (jt=lb) 5=121.

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.









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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

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Max Grav 2=736(LC 1), 6=736(LC 1)

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

TOP CHORD 2-4=-640/182, 4-6=-640/182

BOT CHORD 2-8=-45/532, 6-8=-45/532 WEBS 4-8=0/323

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-6-0, Exterior(2R) 7-6-0 to 10-6-0, Interior(1) 10-6-0 to 15-10-8 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=123, 6=123.

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

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.



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- Gable End Details as applicable, or consult gualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 21, 22, 23, 19, 18, 17, 16 except (it=lb) 24=105.
- 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.







			7-0-8		
				7-0-8	
LOADING	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl	L/d PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.62	Vert(LL) 0.14 7-10 >596	240 MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.21 7-10 >381	180
BCLL	0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.06 2 n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 27 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
SLIDER	Left 2x4 SPF No.2 2-0-0

REACTIONS. (size) 7=Mechanical, 2=0-3-8 Max Horz 2=206(LC 11)

Max Uplift 7=-104(LC 12), 2=-45(LC 12)

Max Grav 7=343(LC 19), 2=370(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-4=-334/183, 4-7=-247/251

NOTES-

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-0-8 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.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 7=104.

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

6) 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.





BCLL 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.06 6 n/a Meight: 28 lb FT = 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 0.24 BC 0.48 WB 0.00 Matrix-AS	DEFL. in (loc) l/defl L/d Vert(LL) -0.03 8 >999 240 Vert(CT) -0.05 8-11 >999 180 Horz(CT) 0.06 6 n/a n/a	PLATES GRIP MT20 197/144 Weight: 28 lb FT = 20%
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 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x4 SPF No.2 2-0-0

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 6=Mechanical, 2=0-3-8 Max Horz 2=201(LC 12) Max Uplift 6=-129(LC 12), 2=-20(LC 12)

Max Grav 6=322(LC 19), 2=375(LC 1)

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

NOTES-

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







	1	2-8-5	I.	7-0-8	L		
		2-8-5	1	4-4-3			
1-11,0-2-0]							

BCDI 10.0 Code IRC2018/TPI2014 Matrix-AS Weight: 31 Ib $ET = 20\%$	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 0.94 BC 0.17 WB 0.05 Matrix-AS	DEFL. in Vert(LL) 0.32 Vert(CT) -0.45 Horz(CT) 0.16	n (loc) 2 8 5 8 5 7	l/defl >251 >183 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 197/144 FT = 20%
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 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2 *Except*

 2-8: 2x8 SP 2400F 2.0E

 WEBS
 2x4 SPF No.2

Plate Offsets (X,Y)-- [2:0-7

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8 Max Horz 2=184(LC 9) Max Uplift 7=-104(LC 12), 2=-45(LC 12)

Max Grav 7=342(LC 19), 2=370(LC 1)

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

TOP CHORD 4-7=-296/274

WEBS 3-8=-142/251

NOTES-

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-0-8 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 7=104.
- 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.







TCLL 25.0 Plate Grip DOL 1.15 TC 0.79 Vert(LL) TCDL 10.0 Lumber DOL 1.15 BC 0.32 Vert(CT) BCLL 0.0 Rep Stress Incr YES WB 0.05 Horz(CT) Horz(CT) BCDL 10.0 Code IRC2018/TPI2014 Matrix-AS Horz(CT) Horz(CT)	0.24 -0.31 0.13	8 8 7	>340 >264 n/a	240 180 n/a	MT20 Weight: 30 lb	197/144 FT = 20%
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 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x4 SPF No.2 2-0-0

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8 Max Horz 2=154(LC 9) Max Uplift 7=-86(LC 12), 2=-59(LC 12)

Max Grav 7=306(LC 1), 2=375(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 5-7=-250/226

NOTES-

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



December 16,2021





BOT CHORD

Rigid ceiling directly applied.

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x4 SPF No.2

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

Max Uplift 6=-77(LC 9), 2=-64(LC 12) Max Grav 6=306(LC 1), 2=375(LC 1)

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

TOP CHORD 2-4=-433/190 BOT CHORD 2-7=-321/421

WEBS 4-7=-175/302

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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-8-8, Exterior(2E) 4-8-8 to 6-10-12 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.

Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

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

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.







		2-8-5	7-0-8	
		2-8-5	4-4-3	1
Plate Offsets (X,Y)	[2:0-2-0,0-0-2], [4:0-4-0,0-1-9]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.20	Vert(LL) -0.02 6-7 >999 240	MT20 197/144
BCLL 0.0	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.01 6 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 28 lb FT = 20%

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 SLIDER
 Left 2x4 SPF No.2 2-0-0

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 2=0-3-8, 6=Mechanical Max Horz 2=88(LC 9) Max Uplift 2=-63(LC 12), 6=-75(LC 9)

Max Grav 2=375(LC 12), 6=306(LC 1)Max Grav 2=375(LC 1), 6=306(LC 1)

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

TOP CHORD 2-4=-499/218

BOT CHORD 2-7=-291/414, 6-7=-217/290 WEBS 4-6=-324/219

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-5-8, Exterior(2E) 3-5-8 to 6-10-12 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 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.







LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-3-2 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.
SLIDER	Left 2x4 SPF No.2 2-0-0		

REACTIONS. (size) 6=Mechanical, 2=0-3-8 Max Horz 2=60(LC 29) Max Uplift 6=-108(LC 5), 2=-106(LC 8) Max Grav 6=405(LC 1), 2=459(LC 1)

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

- TOP CHORD 2-4=-756/226, 4-5=-697/184, 5-6=-344/132
- BOT CHORD 2-7=-216/640
- WEBS 4-7=0/270, 5-7=-193/709

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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=108, 2=106
- 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (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: 1-4=-70, 4-5=-70, 7-8=-20, 6-7=-20
- Concentrated Loads (lb)

Vert: 4=-24(F) 12=-45(F) 13=-45(F) 14=-12(F) 15=-27(F) 16=-27(F)







LL	JMBER-	-
_		

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8 Max Horz 5=124(LC 12) Max Uplift 3=-88(LC 12), 4=-2(LC 12), 5=-15(LC 12) Max Grav 3=132(LC 19), 4=75(LC 3), 5=260(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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-1-8 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.







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

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 7=0-3-8 Max Horz 7=108(LC 12) Max Uplift 4=-17(LC 12), 5=-52(LC 12), 7=-27(LC 12) Max Grav 4=91(LC 3), 5=86(LC 19), 7=260(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-7-13, Exterior(2E) 3-7-13 to 4-1-8 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) Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.







LU	JMBER-	-

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

BRACING-TOP CHORD

BOT CHORD

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

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 7=0-3-8 Max Horz 7=74(LC 12) Max Uplift 4=-34(LC 9), 5=-11(LC 12), 7=-41(LC 12) Max Grav 4=104(LC 1), 5=66(LC 1), 7=260(LC 1)

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

NOTES-

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

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

- MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
- b) Bearing at joint(s) / considers parallel to grain value using ANSI/TPT1 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) 4, 5, 7.

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.







Flate Of	Sets (A, T)	[3.0-4-0,0-1-9]										
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	0.18	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI	2014	Matri	x-MP						Weight: 17 lb	FT = 20%
LUMBER	२-					BRACING						

LOWIDER-	
TOP CHORD	2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2 TOP CHORD Structural wood sheathing directly applied or 4-2-4 oc purlins, BOT CHORD

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

REACTIONS. (size) 5=Mechanical, 6=Mechanical, 9=0-3-8

Max Horz 9=55(LC 5) Max Uplift 5=-15(LC 4), 6=-59(LC 26), 9=-76(LC 8)

Max Grav 5=127(LC 3), 6=62(LC 1), 9=265(LC 1)

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

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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) Bearing at joint(s) 9 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) 5, 6, 9.
- 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) "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, 6-9=-20
 - Concentrated Loads (lb)

Vert: 8=2(F) 10=-2(F) 11=-14(F)









LOADING	i (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.74	Vert(LL) -0.07 7-10 >999 240	MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.52	Vert(CT) -0.17 7-10 >506 180	
BCLL	0.0	Rep Stress Incr NO	WB 0.05	Horz(CT) 0.02 2 n/a n/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-MS		Weight: 39 lb $FT = 20\%$

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 6-0-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=0-3-8 Max Horz 2=207(LC 24) Max Uplift 2=-81(LC 25), 6=-305(LC 8)

Max Grav 2=300(LC 16), 6=1124(LC 1)

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

BOT CHORD 6-7=-773/226, 3-7=-667/235

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6 = 305
- 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.
- 5) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 8-0-8 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.
- 6) Fill all nail holes where hanger is in contact with lumber.
- 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: 1-4=-70, 7-8=-20, 5-6=-20
 - Concentrated Loads (lb) Vert: 11=-466(F)



December 16,2021





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

TOP CHORD 2-3=-290/121 BOT CHORD 6-7=-547/418, 3-7=-449/422

NOTES-

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

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

3) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=163.
- 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



[lob	Truss	Truss Type	Qty	Ply	C&H/156 Cobey	
3	3008832	F3	Common Girder	1	2		149261268
					_	Job Reference (optional)	
	Builders FirstSource (Valley	Center) Valley Center K	S - 67147	8	430 s Aug	16 2021 MiTek Industries Inc. Tue Dec 14 14:44:13 2021	Page 2

ID:cHSbhP3Ybgcv?UC2L7?eKUz02xT-yQerQ2BktYDpS8Y2z_ddvfilayyQLaga2_Wbm9y90ZW

NOTES-

13) 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: 1-4=-70, 4-7=-70, 12-16=-20 Concentrated Loads (lb)

Vert: 10=-867(F) 9=-867(F) 20=-932(F) 21=-929(F) 22=-929(F) 23=-867(F) 24=-867(F) 25=-867(F) 26=-792(F) 27=-818(F)





		7-0-11		10-11-0			21-0-0	
	I	7-0-11	I	6-10-10			7-0-11	1
Plate Offset	ts (X,Y)	[2:0-0-0,0-1-1], [6:Edge,0-1-1]						
LOADING TCLL TCDL BCLL BCDL	(psf) 25.0 10.0 0.0 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.37 BC 0.54 WB 0.13 Matrix-AS	DEFL. in Vert(LL) -0.10 Vert(CT) -0.19 Horz(CT) 0.05	(loc) 8-10 8-10 6	l/defl L/d >999 240 >999 180 n/a n/a	PLATES MT20 Weight: 73 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHOR BOT CHOR WEBS WEDGE Left: 2x4 SF	D 2x4 SP D 2x4 SP 2x4 SP 2x4 SP	PF No.2 PF No.2 PF No.2 ht: 2x4 SP No.3		BRACING- TOP CHORD BOT CHORD	Structura Rigid cei	al wood sheathing dire iling directly applied.	ectly applied.	
REACTION	S. (size Max H	e) 2=0-3-8, 6=0-3-8 orz 2=-84(LC 17)						

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

- TOP CHORD 2-3=-1774/401, 3-4=-1558/384, 4-5=-1558/384, 5-6=-1774/401
- BOT CHORD 2-10=-297/1567, 8-10=-151/1086, 6-8=-304/1567

Max Uplift 2=-179(LC 12), 6=-179(LC 13) Max Grav 2=1006(LC 1), 6=1006(LC 1)

WEBS 4-8=-111/511, 5-8=-347/185, 4-10=-111/511, 3-10=-347/185

NOTES-

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-6-0, Exterior(2R) 10-6-0 to 13-6-0, Interior(1) 13-6-0 to 21-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=179, 6=179.
- 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.







Scale = 1:37.7



	3-8-13	7-3-10		10-6-0	1:	3-8-6			17-3-3	21-0-0	
Plate Offsets (X,Y)	[2:0-0-0,0-0-13], [8:Edge,	0-0-13]		3-2-6		-2-0			3-6-12	3-8-13	
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/TF	2-0-0 1.15 1.15 NO Pl2014	CSI. TC C BC C WB C Matrix-I	0.63 0.78 0.10 MS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.12 -0.21 0.07	(loc) 12 12 8	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 85 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SP BOT CHORD 2x4 SP WEBS 2x4 SP WEDGE Left: 2x4 SP No.3 , Rig	PF No.2 PF 1650F 1.5E PF No.2 ht: 2x4 SP No.3				BRACING- TOP CHOF BOT CHOF	D D	Structu Rigid ce	ral wood eiling dire	sheathing dir ectly applied c	ectly applied or 3-1-8 or 8-2-4 oc bracing.	oc purlins.
REACTIONS. (size Max H Max U Max G	e) 2=0-3-8, 8=0-3-8 orz 2=-58(LC 13) plift 2=-435(LC 8), 8=-435 irav 2=1409(LC 1), 8=140	5(LC 9) 99(LC 1)									
FORCES. (lb) - Max. TOP CHORD 2-3=- 7-8=- BOT CHORD 2-15= 8-10 WEBS 3-13= 6-11=	Comp./Max. Ten All forn 2615/828, 3-4=-2319/782 2615/828 =-758/2339, 13-15=-758/2 =-701/2339 =-265/97, 4-13=-97/331, 4 =-97/331, 7-11=-265/98	ces 250 (lb) or l , 4-5=-2344/834 339, 12-13=-66 -12=-168/396, 5	ess except wi I, 5-6=-2344/i 7/2101, 11-12 5-12=-411/24	rhen shown. /834, 6-7=-2 2=-639/210 1, 6-12=-16	2319/782, 1, 10-11=-701/23: 38/396,	39,					
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 2=435, 8=435. 6) This truss is designer referenced standard 7) "NAILED" indicates : 8) In the LOAD CASE(C) LOAD CASE(S) Stand 1) Dead + Roof Live (b Uniform Loads (plf) Vert: 1-4=-7	e loads have been conside (ult=115mph (3-second gu gable end zone; cantileve rainage to prevent water p designed for a 10.0 psf bo connection (by others) of ed in accordance with the ANSI/TPI 1. 3-10d (0.148"x3") or 3-12c S) section, loads applied t dard alanced): Lumber Increas 70, 4-6=-70, 6-9=-70, 16-1	ered for this des ust) Vasd=91mp r left and right of onding. ottom chord live truss to bearing 2018 Internation d (0.148"x3.25") to the face of the e=1.15, Plate In 9=-20	ign. h; TCDL=6.0 exposed ; enc load noncon plate capabl nal Residentia toe-nails per e truss are no ncrease=1.15)psf; BCDL= d vertical lef acurrent with le of withsta al Code sec r NDS guidl oted as fron:	=4.2psf; h=25ft; Ca ft and right expose and any other live loa anding 100 lb uplif ctions R502.11.1 a ines. t (F) or back (B).	at. II; Exj d; Lumb ds. at joint(nd R802	p C; En ber DOL (s) exce 2.10.2 a	closed; _=1.60 pl ept (jt=lb) and	ate	STATE OF STATE OF SE SE SE SE SE SE SE SE SE SE SE SE SE	MISSOLA VIER VIER AL ENGINE

Continued on page 2

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



December 16,2021

Job	Truss	Truss Type	Qty	Ply	C&H/156 Cobey
			1		149261270
3008832	F5	Hip Girder	1	1	
					Job Reference (optional)
Builders FirstSource (Valley	Center), Valley Center, k	S - 67147,	8.	430 s Aug	16 2021 MiTek Industries, Inc. Tue Dec 14 14:44:17 2021 Page 2
		ID:cHSt	hP3Ybqcv	?UC2L7?e	KUz02xT-rCuLGQEFxnjFxlspCqhZ4Vs0HZHKHVIAzcUpvwy90ZS

LOAD CASE(S) Standard

Concentrated Loads (lb) Vert: 12=-27(B) 5=-53(B) 22=-51(B) 23=-34(B) 24=-32(B) 25=-53(B) 26=-53(B) 27=-32(B) 28=-34(B) 29=-51(B) 30=-54(B) 31=-46(B) 32=-65(B) 33=-27(B) 34=-27(B) 35=-65(B) 35=-65





	I	2-8-	5	1-5-6	1
Plate Offsets (X,Y)	[3:0-1-11,0-2-0], [4:0-3-0,0-0-8]				
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 0.25 BC 0.04 WB 0.00 Matrix-AS	DEFL. in Vert(LL) 0.03 Vert(CT) -0.04 Horz(CT) 0.02	(loc) l/defl L/d 3 >999 240 3 >999 180 6 n/a n/a	PLATES GRIP MT20 197/144 Weight: 13 lb FT = 20%

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

BRACING-TOP CHORD BOT CHORD

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

REACTIONS. (size) 6=Mechanical, 4=Mechanical, 7=0-3-8

Max Horz 7=73(LC 12) Max Uplift 4=-60(LC 12), 7=-45(LC 12)

Max Grav 6=44(LC 3), 4=141(LC 1), 7=248(LC 1)

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

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-3-5, Interior(1) 2-3-5 to 3-10-2 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) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

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

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

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

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



16023 Swingley Ridge Rd Chesterfield, MO 63017



LOADING (psf)SPACING-2-0TCLL25.0Plate Grip DOL1.TCDL10.0Lumber DOL1.BCLL0.0Rep Stress IncrYE	CSI. TC 0.05 BC 0.05 WB 0.00	DEFL. in Vert(LL) -0.00 Vert(CT) -0.00 Horz(CT) 0.00	(loc) 1/0 7 >9 7 >9 2	defl L/d 999 240 999 180 n/a n/a	PLATES MT20	GRIP 197/144
BCDL 10.0 Code IRC2018/TPI2014	Matrix-MP				Weight: 8 lb	FT = 20%

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEDGE Left: 2x4 SPF No.2 BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 2-5-4 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical Max Horz 2=53(LC 12)

Max Uplift 3=-29(LC 12), 2=-35(LC 12), 4=-4(LC 12) Max Grav 3=62(LC 1), 2=179(LC 1), 4=41(LC 3)

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) 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) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.







(lb) - Max Horz 1=276(LC 9)

1-2=-315/239

Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 12, 14, 15, 16, 11 except 13=-113(LC 12) Max Grav All reactions 250 lb or less at joint(s) 1, 10, 12, 13, 14, 15, 16, 11

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

NOTES-

TOP CHORD

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 10-9-13, Exterior(2R) 10-9-13 to 13-9-13
 - , Interior(1) 13-9-13 to 14-1-9 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) All plates are 2x4 MT20 unless otherwise indicated.

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, 10, 12, 14, 15, 16, 11 except (jt=lb) 13=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.





Job	Truss	Truss Type	Qty	Ply	C&H/156 Cobey	
					149	3261274
3008832	LG2	GABLE	1	1		
					Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.4	430 s Aug	16 2021 MiTek Industries, Inc. Tue Dec 14 14:44:25 2021 Pa	ige 1
			ID:cHSbhP3Ybgcv?	UC2L7?ek	(Uz02xT-ckNNy9LG2Ek6u_TLgWrRPBBUIoBs97ILprQEBTy9	0ZK
		1	5-4-10			



<u>4-0-8 5-4-10</u> 4-0-8 1-4-2

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 0.18 BC 0.03 WB 0.13 Matrix-S	DEFL. ir Vert(LL) n/a Vert(CT) n/a Horz(CT) -0.00	n (loc) l/defi L/d a - n/a 999 a - n/a 999 b 8 n/a n/a	PLATES MT20 Weight: 60 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF OTHERS 2x4 SF	F No.2 F No.2 F No.2 F No.2		BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheathing di except end verticals. Rigid ceiling directly applied of 6-0-0 oc bracing: 1-8. 2 Rows at 1/3 pts 4	rectly applied or 5-4-1 or 10-0-0 oc bracing, I-5	0 oc purlins, Except:
			JOINTS	1 Brace at Jt(s): 9		

REACTIONS. All bearings 5-4-10.

(lb) - Max Horz 1=371(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) except 5=-111(LC 12), 1=-343(LC 10), 7=-309(LC 12), 8=-441(LC 12), 12)

Max Grav All reactions 250 lb or less at joint(s) 5, 6 except 1=755(LC 12), 7=280(LC 19), 8=304(LC 19)

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

TOP CHORD 1-2=-1036/786, 2-3=-528/406

WEBS 7-9=-374/418, 3-9=-374/418, 2-8=-465/556

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

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

3) Gable requires continuous bottom chord bearing.

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

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 5, 343 lb uplift at joint 1, 309 lb uplift at joint 7 and 441 lb uplift at joint 8.

7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 7, 8.

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



Scale = 1:87.8





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

TOP CHORD BOT CHORD

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

REACTIONS. (size) 5=10-2-11, 2=10-2-11, 6=10-2-11 Max Horz 2=189(LC 9) Max Uplift 5=-26(LC 9), 2=-35(LC 12), 6=-145(LC 12)

Max Grav 5=89(LC 1), 2=271(LC 1), 6=589(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 3-6=-438/278 WEBS

NOTES-

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

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 26 lb uplift at joint 5, 35 lb uplift at joint 2 and 145 lb uplift at joint 6.

5) Beveled plate or shim required to provide full bearing surface with truss chord 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.







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 IBC2018///DI2014	CSI. TC 0.20 BC 0.10 WB 0.04 Matiix D	DEFL. in Vert(LL) n/a Vert(CT) n/a Horz(CT) -0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 197/144
		Mainx-P	BRACING				weight: 22 lb	F1 = 20%

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (size) 1=7-9-6, 4=7-9-6, 5=7-9-6

Max Horz 1=127(LC 9) Max Uplift 4=-27(LC 9), 5=-112(LC 12)

Max Grav 1=93(LC 20), 4=137(LC 1), 5=394(LC 1)

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FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
                2-5=-306/243
WEBS
```

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 3-10-0, Interior(1) 3-10-0 to 7-8-4 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 27 lb uplift at joint 4 and 112 lb uplift at joint 5.

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



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

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

except end verticals.





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 0.26 BC 0.14 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 Weight: 12 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 4-7-9 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-7-0, 3=4-7-0 Max Horz 1=68(LC 9)

Max Uplift 1=-31(LC 12), 3=-45(LC 12) Max Grav 1=168(LC 1), 3=168(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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 4-5-13 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) 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 31 lb uplift at joint 1 and 45 lb uplift at joint 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.







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 0.19 BC 0.10 WB 0.04 Matrix-P	DEFL. in (loc) I/defl L/d Vert(LL) n/a - n/a 999 Vert(CT) n/a - n/a 999 Horz(CT) -0.00 4 n/a n/a	PLATES GRIP MT20 197/144 Weight: 22 lb FT = 20%
			554000	

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

REACTIONS. (size) 1=7-7-0, 4=7-7-0, 5=7-7-0 Max Horz 1=123(LC 9) Max Uplift 1=-7(LC 12), 4=-20(LC 9), 5=-111(LC 12) Max Grav 1=137(LC 1), 4=85(LC 1), 5=384(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 2-5=-299/244

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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 7-5-13 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) 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 7 lb uplift at joint 1, 20 lb uplift at joint 4 and 111 lb uplift at joint 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.







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 0.23 BC 0.12 WB 0.00 Matrix-P	DEFL. Vert(LL) r Vert(CT) r Horz(CT) 0.	in (loc) n/a - n/a - 00 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 11 lb	GRIP 197/144 FT = 20%
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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 4-5-3 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-4-9, 3=4-4-9 Max Horz 1=65(LC 9)

Max Uplift 1=-30(LC 12), 3=-43(LC 12)

Max Grav 1=159(LC 1), 3=159(LC 1)

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

NOTES-

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 4-3-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Gable requires continuous bottom chord bearing.

- 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 30 lb uplift at joint 1 and 43 lb uplift at joint 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.






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





2x4 ⋍

2x4 🗢

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

0-0 <u>-10</u> 0-0-10			5-9-8 5-8-14	
Plate Offsets (X,Y)	[2:0-3-0,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 IncrYESCodeIRC2018/TPI2014	CSI. TC 0.10 BC 0.20 WB 0.00 Matrix-P	DEFL. in (loc) I/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: 12 lb FT = 20%
LUMBER- TOP CHORD 2x4 SPF No.2			BRACING- TOP CHORD Structural wood sheathing di	rectly applied or 5-9-8 oc purlins.

BOT CHORD

BOT CHORD 2x4 SPF No.2

REACTIONS. 1=5-8-4, 3=5-8-4 (size) Max Horz 1=-16(LC 17) Max Uplift 1=-33(LC 12), 3=-33(LC 13) Max Grav 1=193(LC 1), 3=193(LC 1)

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

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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

3) Gable requires continuous bottom chord bearing.

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

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 1 and 33 lb uplift at ioint 3.

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



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