

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 1800934-1800934A CL 3187 CP

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I36351368 thru I36351399

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



March 11,2019

Johnson, Andrew

**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.



H	10-3-4		20-0-0	25-0-0	+	33-10-4	36-0-0 4	3-0-0	
Plate Offsets (X,	Y) [6:0-3-0,0-2-0], [7:0-3-0,	0-2-0]	9-0-12	5-0-0		8-10-4	2-1-12	-0-0	
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	* SPACING- Plate Grip DOL Lumber DOL * Rep Stress Incr Code IRC2015/T	2-0-0 1.15 1.15 YES PI2014	<b>CSI.</b> TC 0.94 BC 0.79 WB 0.63 Matrix-S	DEFL. Vert(LL) · Vert(CT) · Horz(CT)	in (loc) -0.32 19-21 -0.57 19-21 0.11 12	l/defl L/d >999 240 >749 180 n/a n/a	PLATES MT20 MT18H Weight: 37	<b>GRIP</b> 244/190 244/190 8 lb FT = 20%	
LUMBER- TOP CHORD 2 BOT CHORD 2 WEBS 2 OTHERS 2 REACTIONS. (b) -	2x4 SP No.2 2x4 SP DSS *Except* 17-20: 2x4 SP No.1 2x4 SP No.3 2x4 SP No.3 All bearings 7-3-8 except (jt=1 Max Horz 2=186(LC 12) Max Uplift All uplift 100 lb or I 15=-105(LC 13) Max Grav All reactions 250 lb	ength) 2=0-3-8, ess at joint(s) ex o or less at joint(:	15=0-3-8. cept 2=-211(LC 12), 12 s) 14, 13 except 2=1695	BRACING- TOP CHORE BOT CHORE WEBS =-177(LC 13), 14=-4 9(LC 1), 12=1344(LC	<ul> <li>Structu</li> <li>2-0-0</li> <li>Rigid a</li> <li>8-6-0</li> <li>9-5-3</li> <li>1 Row</li> <li>48(LC 1),</li> <li>2), 15=757(I</li> </ul>	ural wood sheathii oc purlins (4-2-4 n seiling directly app oc bracing: 2-21 oc bracing: 19-21. at midpt	ng directly applied, exc nax.): 6-7. Jlied or 10-0-0 oc bracir 5-19, 7-19, 8-18, 10	ept end verticals, and ıg, Except: )-12	
FORCES. (Ib) TOP CHORD BOT CHORD WEBS	Max. Comp./Max. Ten All fo 2-3=-3078/743, 3-5=-2803/70 8-10=-2015/540 2-21=-638/2663, 19-21=-432/ 14-15=-395/1742, 13-14=-39 3-21=-368/256, 5-21=-64/598 7-18=-89/485, 8-18=-284/213	rces 250 (lb) or 5, 5-6=-2003/60 2191, 18-19=-2( 5/1742, 12-13=- , 5-19=-736/310 , 10-12=-1994/4	less except when shown 3, 6-7=-1711/585, 7-8=- 12/1647, 16-18=-320/17 395/1742 , 6-19=-105/588, 7-19=- 06	n. .1923/588, 88, 15-16=-395/1742 .115/325,	2,				
NOTES- 1) Unbalanced rr 2) Wind: ASCE T MWFRS (env. exposed;C-C 3) Truss designe Gable End De 4) Provide adeqt 5) All plates are	cof live loads have been consid 7-10; Vult=130mph (3-second g elope) gable end zone and C-C for members and forces & MW el for wind loads in the plane of etails as applicable, or consult of uate drainage to prevent water MT20 plates unless otherwise	lered for this des just) Vasd=103n Exterior(2) zon FRS for reactior the truss only. jualified building ponding. ndicated	sign. ph; TCDL=6.0psf; BCD e; cantilever left and rigi s shown; Lumber DOL= For studs exposed to w designer as per ANSI/T	DL=6.0psf; h=30ft; Ca ht exposed ; end vert =1.60 plate grip DOL= ind (normal to the fac IPI 1.	at. II; Exp B; E tical left and r =1.60 ce), see Stan	Enclosed; right dard Industry	ALLER	TH CAROL	this

- 6) All plates are 1.5x4 MT20 unless otherwise indicated.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 2, 177 lb uplift at joint 12, 448 lb uplift at joint 14 and 105 lb uplift at joint 15.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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		10-3-4		20-0-0		25-0-0	27-0-0		34-8-8		43-0-0	
Plate Offsets (	(X,Y)	[6:0-3-0,0-2-0], [7:0-6-4,0-2	2-8], [13:0-3-4,	0-2-4], [15:0	)-5-0,0-2-0]	5-0-0	2-0-0		7-0-0		0-3-0	
LOADING (ps TCLL 20 TCDL 10 BCLL 0 BCDL 10	sf) ).0 ).0 ).0 * ).0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2015/TPl2	2-0-0 1.15 1.15 YES 2014	<b>CSI.</b> TC BC WB Matrix	0.78 0.96 0.72 -S	<b>DEFL.</b> Vert(LL) Vert(CT) Horz(CT)	in -0.34 -0.60 0.16	(loc) 18-20 18-20 21	l/defl >999 >851 n/a	L/d 240 180 n/a	PLATES MT20 MT18H Weight: 282 lb	<b>GRIP</b> 244/190 244/190 FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS	2x4 SP 1-4: 2x4 2x4 SP 8-16: 2x 2x4 SP 12-21: 2	No.2 *Except* 4 SP No.1 No.1 *Except* x4 SP No.3, 13-15: 2x4 SP No.3 *Except* 2x10 SP No.2	No.2			BRACING TOP CHC BOT CHC WEBS	<b>)-</b> DRD DRD	Structu except Rigid c 1 Row 1 Row	aral wood s end vertic reiling direc at midpt at midpt	sheathing dirr als, and 2-0- ctly applied o 8- 5- 5-	ectly applied or 2-2-0 o -0 oc purlins (3-11-4 ma or 2-2-0 oc bracing. Ext -15 -18, 7-18, 7-17, 11-13	c purlins, ax.): 6-7. cept:
REACTIONS.	. (Ib/size Max Ho Max Up	e) 2=1768/0-3-8, 21=1698 orz 2=186(LC 16) olift 2=-215(LC 12), 21=-17	8/Mechanical 71(LC 13)									
FORCES. (III	b) - Max. ( 2-3=-3	Comp./Max. Ten All force 3211/780, 3-5=-2937/740, 5	es 250 (lb) or l 5-6=-2125/636	ess except v 8, 6-7=-1807	when shown. 7/615, 7-8=-220	02/732,						

 
 8-9=-2264/656, 9-11=-2659/679, 11-12=-379/129, 13-21=-1698/389, 12-13=-295/124

 BOT CHORD
 2-20=-680/2799, 18-20=-473/2313, 17-18=-252/1750, 14-15=-450/2241, 13-14=-539/2316

 WEBS
 3-20=-370/257, 5-20=-66/590, 5-18=-732/310, 6-18=-112/629, 7-18=-103/290, 7-17=-367/70, 15-17=-152/1750, 7-15=-309/1058, 9-15=-460/212, 9-14=-16/285, 11-13=-2433/564

# NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=215, 21=171.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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		10-3-4	-	20-0-0	25-0-0	+		33-10-4		43-0-0	
Plate Offset	ts (X,Y)	[6:0-3-0,0-2-0], [7:0-3-0,0-2	2-0]	9-0-12	5-0-0			0-10-4		9-1-12	
LOADING TCLL TCDL BCLL BCDL	(psf) 20.0 10.0 0.0 * 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2015/TPl2	2-0-0 1.15 1.15 YES 2014	<b>CSI.</b> TC 0.79 BC 0.92 WB 0.76 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.34 -0.60 0.14	(loc) 16-18 16-18 12	l/defl >999 >850 n/a	L/d 240 180 n/a	PLATES MT20 MT18H Weight: 256 lb	<b>GRIP</b> 244/190 244/190 FT = 20%
LUMBER- TOP CHOR BOT CHOR WEBS REACTION	JUMBER-         'OP CHORD       2x4 SP No.2 *Except*         1-4,9-11: 2x4 SP No.1         YOT CHORD       2x4 SP No.1         YEBS       2x4 SP No.3         REACTIONS.       (Ib/size)         2=1778/0-3-8, 12=1707/Mechanical Max Horz         YEBS       2=1778/0-3-8, 12=1707/Mechanical Max Horz         YEBS       2=100 (Ib/size)         2=1700 (Ib/size)       2=1773(LC 12)         YEBS       4.1 forces 250 (Ib) or less excent when shown										
FORCES. TOP CHOR BOT CHOR WEBS	*ORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         FOP CHORD       2-3=-3231/784, 3-5=-2958/745, 5-6=-2157/642, 6-7=-1847/619, 7-8=-2110/637, 8-10=-2513/664, 10-11=-294/134, 11-12=-269/135         SOT CHORD       2-18=-674/2818, 16-18=-469/2331, 15-16=-247/1812, 13-15=-401/2102, 12-13=-497/2166         NEBS       3-18=-370/257, 5-18=-65/592, 5-16=-733/309, 6-16=-122/656, 7-16=-121/272, 7-15=-115/603, 8-15=-508/245, 8-13=-24/304, 10-12=-2407/555										
NOTES- 1) Unbaland	ced roof live	loads have been consider	ed for this des	sign. aph: TCDI =6 0psf: BCD	II =6 0nsf: h=30ft: C≤	at II. F	Σxn Β· Ε	nclosed.			

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

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

Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=215, 12=173.

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







				43	3-0-0						
				43	3-0-0						
Plate Offsets (	(X,Y) [	13:0-3-0,0-2-0], [16:0-3-0,0	)-2-0]								
LOADING (ps TCLL 20 TCDL 10 BCLL 0 BCDL 10	osf) 0.0 0.0 0.0 * 0.0 *	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2015/TPl2	2-0-0 <b>CSI.</b> 1.15 TC 1.15 BC YES WB 2014 Matr	0.13 0.07 0.15 ix-S	<b>DEFL.</b> Vert(LL) Vert(CT) Horz(CT)	in -0.00 0.00 0.00	(loc) 1 1 27	l/defl n/r n/r n/a	L/d 120 90 n/a	PLATES MT20 Weight: 315 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS OTHERS	2x4 SP 2x4 SP 2x4 SP 2x4 SP 2x4 SP	No.2 No.2 No.3 No.3		I	BRACING- TOP CHOF BOT CHOF WEBS	RD RD	Structur except e Rigid ce 1 Row a	al wood end vertie eiling dire	sheathing di cals, and 2-0 ctly applied o 1	rectly applied or 6-0-0 o -0 oc purlins (6-0-0 max or 10-0-0 oc bracing. 6-36, 15-37, 14-38, 12-	oc purlins, x.): 13-16. -39, 11-40, 17-35

**REACTIONS.** All bearings 43-0-0.

(lb) - Max Horz 2=187(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 2, 37, 38, 40, 42, 43, 44, 45, 46, 47, 48, 35, 34, 33, 32, 31, 30, 29 except 28=-109(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 27, 2, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 35, 34, 33, 32, 31, 30, 29, 28

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

TOP CHORD 10-11=-123/289, 11-12=-143/346, 12-13=-142/342, 13-14=-132/341, 14-15=-132/341,

15-16=-132/341, 16-17=-149/362, 17-18=-131/315, 18-19=-114/266

### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) Provide adequate drainage to prevent water ponding.

5) All plates are 1.5x4 MT20 unless otherwise indicated.

6) Gable requires continuous bottom chord bearing.

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

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

9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 37, 38, 40, 42, 43, 44, 45, 46, 47, 48, 35, 34, 33, 32, 31, 30, 29 except (jt=lb) 28=109.

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

MILLIN  $\cap$ Jummung Summer SEAL 5844 EW 104 munut March 11,2019

ENGINEERING BY ENGINEERING BY A MiTek Affiliate 818 Soundside Road Edenton, NC 27932





WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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Vert: 1-6=-60, 6-11=-60, 2-10=-20, 16-18=-20

### Continued on page 2

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March 11,2019

Job	Truss	Truss Type	Qty	Ply	CL 3187 CP	
						36351373
1800934-1800934A	T3	Common	8	1		
					Job Reference (optional)	
84 Components (Dunn),	Dunn, NC - 28334,			8.220 s No	ov 16 2018 MiTek Industries, Inc. Fri Mar 8 13:35:24 2019 F	Page 2

8.220 s Nov 16 2018 Mi Lek Industries, Inc. Fri Mar 8 13:35:24 2019 Page 2 ID:G9QzJCeibNixLaRQHN5IvSzeysi-Xtb04DL\_u3UOicjgmMA9e6d9cXq6hm6UUhuLlOzczl1

### LOAD CASE(S) Standard

Concentrated Loads (lb)

### Vert: 17=-75(F)

18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-6=-20, 6-11=-20, 2-22=-20, 22-23=-60, 23-24=-20, 24-25=-60, 25-27=-20, 27-28=-60, 10-28=-20, 18-29=-20, 29-30=-60, 16-30=-20 Concentrated Loads (lb)

Vert: 17=-38(F)











- 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) The Fabrication Tolerance at joint 5 = 8%, joint 6 = 8%
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Ceiling dead load (5.0 psf) on member(s). 4-5, 5-6, 6-7; Wall dead load (10.0psf) on member(s).4-16, 7-12
- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 13-16, 12-13
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Attic room checked for L/360 deflection.



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BOT CHORD

JOINTS

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3 OTHERS 2x4 SP No.3

REACTIONS. All bearings 22-0-0.

Max Horz 30=-268(LC 10) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 25, 26, 28, 22, 21, 19 except 30=-206(LC 10), 17=-149(LC 11), 27=-125(LC 12), 29=-266(LC 12), 20=-126(LC 13), 18=-250(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 26, 27, 28, 21, 20, 19, 18, 23 except 30=315(LC 9), 17=262(LC 8), 25=256(LC 22), 29=251(LC 10), 22=254(LC 24)

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

TOP CHORD 2-3=-258/212

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) Provide adequate drainage to prevent water ponding.
- 5) All plates are 1.5x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 26, 28, 22, 21. 19 except (it=lb) 30=206. 17=149. 27=125. 29=266. 20=126. 18=250.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 7-10.

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

1 Brace at Jt(s): 31, 32, 33, 34, 35



- will fit between the bottom chord and any other members.
- 8) Ceiling dead load (5.0 psf) on member(s). 4-5, 5-6, 6-7; Wall dead load (10.0psf) on member(s).4-16, 7-12
   9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 13-16, 12-13
- Control of the purlim representation does not depict the size or the orientation of the purlim along the top and/or bottom chord.
- To) Graphical punin representation does not depict the size of the orientation of the punin along the top and/or
- 11) Attic room checked for L/360 deflection.







March 11,2019





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Job	Truss	Truss Type	Qty	Ply	CL 3187 CP	
					13	36351379
1800934-1800934A	V1GR	Common Girder	1	2		
				5	Job Reference (optional)	
84 Components (Dunn),	Dunn, NC - 28334,			8.220 s No	ov 16 2018 MiTek Industries, Inc. Fri Mar 8 13:35:41 2019 P	Page 2
		ID:G9	QzJCeibN	lixLaRQHI	V5IvSzeysi-X87Re1YeuHd EDWxFRz8gig4jNhf9Pk OgVIrvz	zczHm

# LOAD CASE(S) Standard

Concentrated Loads (lb) Vert: 7=-1678(B) 6=-1678(B) 9=-1687(B) 10=-1678(B) 11=-1678(B) 12=-1678(B) 14=-1678(B) 15=-1687(B)





- MWFRS (envelope) gable end zone and C-C Exterior(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) 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=220, 6=220.







LOADING (psf)         SPACING-         2-0-0         CSI.         DEFL.         in         (loc)         l/defl         L/d         PLATES         GRIP           TCLL         20.0         Plate Grip DOL         1.15         TC         0.75         Vert(LL)         -0.06         4-6         >999         240         MT20         244/190           TCDL         10.0         Lumber DOL         1.15         BC         0.57         Vert(CT)         -0.14         4-6         >999         180           BCLL         0.0 *         Rep Stress Incr         YES         WB         0.13         Horz(CT)         0.02         4         n/a         n/a	F	7-0-0 7-0-0								
BCDL 10.0 Code $RC2015/1P12014$ Matrix-5 Weight: 49 ID F1 = 20%	LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	* Rep Stress Incr YES Code IRC2015/TPI2014	CSI. TC 0.75 BC 0.57 WB 0.13 Matrix-S	DEFL. Vert(LL) -0. Vert(CT) -0. Horz(CT) 0.	in (loc) .06 4-6 .14 4-6 .02 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 49 lb	<b>GRIP</b> 244/190 FT = 20%	

TOP CHORD

BOT CHORD

```
LUMBER-
```

TOP CHORD 2x4 SP No.2 2x4 SP No.2 BOT CHORD 2x4 SP No.3 WEBS

REACTIONS. (lb/size) 2=617/0-3-8, 4=617/0-3-8 Max Horz 2=45(LC 12) Max Uplift 2=-124(LC 8), 4=-124(LC 9)

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

TOP CHORD 2-3=-1021/255, 3-4=-1021/255

BOT CHORD 2-6=-162/904, 4-6=-162/904

3-6=0/330 WEBS

### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=124, 4=124.



Structural wood sheathing directly applied or 3-7-0 oc purlins.

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





	L	7-0-0						14-0-0		
	1	7-0-0		1				7-0-0		
LOADING (psi TCLL 20.0 TCDL 10.0 BCLL 0.1 BCDL 10.0	sf) .0 .0 .0 * .0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2015/TPI2014	<b>CSI.</b> TC 0.75 BC 0.57 WB 0.13 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.06 -0.14 0.02	(loc) 4-6 4-6 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 54 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS OTHERS	2x4 SP 2x4 SP 2x4 SP 2x4 SP 2x4 SP	No.2 No.2 No.3 No.3		BRACING TOP CHOP BOT CHOP	RD RD	Structu Rigid c	iral wood eiling dir	l sheathing d ectly applied	lirectly applied or 3-7-0 or 10-0-0 oc bracing.	oc purlins.
REACTIONS.	(Ib/size Max Ho Max Up	) 2=617/0-3-8, 4=617/0-3-8 prz 2=45(LC 12) plift 2=-124(LC 8), 4=-124(LC 9)								
FORCES. (Ib) TOP CHORD BOT CHORD WEBS	o) - Max. ( 2-3=-1 2-6=-1 3-6=0	Comp./Max. Ten All forces 250 (lb) of 1021/255, 3-4=-1021/255 162/904, 4-6=-162/904 /330	less except when shown.							

NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) Gable studs spaced at 2-0-0 oc.

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

6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=124, 4=124.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSITPTI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=207, 6=206.







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

 Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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
 This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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







	2-10-10	5-0-13	6-11-3	9-1-6	12-0-0
	2-10-10	2-2-3	1-10-6	2-2-3	2-10-10
Plate Offsets (X,Y)	[3:0-3-0,0-2-13], [5:0-3-0,0-2-9], [6:0	-3-0,0-2-13]			
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0 *           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNOCode IRC2015/TPI2014	CSI. TC 0.11 BC 0.24 WB 0.06 Matrix-S	DEFL. Vert(LL) -0.0 Vert(CT) -0.0 Horz(CT) 0.0	in (loc) l/defl L/d )2 11 >999 240 )4 11 >999 180 )1 7 n/a n/a	PLATES         GRIP           MT20         244/190           Weight: 69 lb         FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x6 SF WEBS 2x4 SF	9 No.2 9 No.2 9 No.3		BRACING- TOP CHORD	Structural wood sheathin except 2-0-0 oc purlins (5-10-15 Rigid ceiling directly appl	g directly applied or 5-6-13 oc purlins, max.): 4-5. ied or 10-0-0 oc bracing.

### REACTIONS. (Ib/size) 2=692/0-3-8, 7=692/0-3-8 Max Horz 2=-44(LC 9) Max Uplift 2=-182(LC 8), 7=-182(LC 9)

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

TOP CHORD 2-3=-1095/282, 3-4=-1049/315, 4-5=-972/309, 5-6=-1047/311, 6-7=-1095/285

BOT CHORD 2-12=-241/937, 11-12=-246/938, 10-11=-257/974, 9-10=-218/938, 7-9=-214/938

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=182, 7=182.

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

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

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

### LOAD CASE(S) Standard

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

Vert: 1-3=-60, 3-4=-60, 4-5=-60, 5-6=-60, 6-8=-60, 2-7=-20

Concentrated Loads (lb)

Vert: 5=-56(B) 11=-23(B) 4=-56(B) 10=-23(B) 13=-28(B) 14=-52(B) 15=-28(B) 16=-13(B) 17=-20(B) 18=-13(B)



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MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical le 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 173 lb uplift at joint 1, 156 lb uplift at joint 5, 258 lb uplift at joint 6 and 259 lb uplift at joint 8.



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TOP CHORD2x4 SP No.3BOT CHORD2x4 SP No.3OTHERS2x4 SP No.3

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=176/8-0-6, 3=176/8-0-6, 4=237/8-0-6 Max Horz 1=-91(LC 8) Max Uplift 1=-44(LC 13), 3=-44(LC 13)

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

### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 1 and 44 lb uplift at joint 3.



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2x4 SP No.3 BOT CHORD 2x4 SP No.3 OTHERS

REACTIONS. 1=128/6-0-6, 3=128/6-0-6, 4=173/6-0-6 (lb/size) Max Horz 1=-66(LC 8)

Max Uplift 1=-32(LC 13), 3=-32(LC 13)

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

### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 1 and 32 lb uplift at joint 3.







TOP CHORD

BOT CHORD

Plate Off	fsets (X,Y)	[2:0-3-4,Edge]									
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES
TCLL	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.06	2-4	>999	240	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.13	2-4	>538	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code IRC2015/TI	PI2014	Matri	x-P	`´´					Weight: 21 lb

LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2WEBS2x4 SP No.3

REACTIONS. (Ib/size) 2=304/0-3-8, 4=221/0-1-8 Max Horz 2=65(LC 9)

Max Uplift 2=-88(LC 8), 4=-43(LC 12)

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

### NOTES-

 Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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



GRIP

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

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

except end verticals.

244/190

FT = 20%





3x4 =

LOADING(psf)TCLL20.0TCDL10.0BCLL0.0*20.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.65 BC 0.44 WB 0.00	DEFL.         in           Vert(LL)         -0.01           Vert(CT)         0.02           Horz(CT)         0.00	(loc) l/de) 1 ו 1 ו 4 ח	efl L/d n/r 120 n/r 90 n/a n/a	PLATES MT20	<b>GRIP</b> 244/190
		Matrix-P	BRACING-			weight: 21 lb	FT = 20%
TOP CHORD 2x4 SP BOT CHORD 2x4 SP	No.2 No.2		TOP CHORD	Structural w except end	vood sheathing dire verticals.	ectly applied or 6-0-0 c	oc purlins,

BOT CHORD

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

BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3

REACTIONS. (lb/size) 4=229/6-0-0, 2=299/6-0-0 Max Horz 2=65(LC 9) Max Uplift 4=-45(LC 12), 2=-82(LC 8)

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

### NOTES-

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry

Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

3) Gable requires continuous bottom chord bearing. 4) Gable studs spaced at 2-0-0 oc.

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

6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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







L	0-11-15	1		4-0-1		1	5-0-0	
	0-11-15	1		3-0-2		1	0-11-15	
Plate Offsets (X,Y)	[3:0-2-0,Edge]							
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2015/TPI	2-0-0 1.15 1.15 YES 2014	<b>CSI.</b> TC 0.08 BC 0.09 WB 0.00 Matrix-P	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.00 2-4 -0.01 2-4 0.00 4	l/defl L/d >999 240 >999 180 n/a n/a	PLATES MT20 Weight: 13 lb	<b>GRIP</b> 244/190 FT = 20%

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 5-0-0 oc purlins.

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

#### LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2

REACTIONS. (lb/size) 2=159/0-3-8, 4=159/0-3-8 Max Horz 2=-18(LC 13) Max Uplift 2=-31(LC 12), 4=-31(LC 13)

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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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L	0-11-15	1		4-0-1		1	5-0-0	
	0-11-15	1		3-0-2		1	0-11-15	
Plate Offsets (X,Y)	[3:0-2-0,Edge]							
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2015/TPI	2-0-0 1.15 1.15 YES 2014	<b>CSI.</b> TC 0.08 BC 0.09 WB 0.00 Matrix-P	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.00 2-4 -0.01 2-4 0.00 4	l/defl L/d >999 240 >999 180 n/a n/a	PLATES MT20 Weight: 13 lb	<b>GRIP</b> 244/190 FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2

REACTIONS. (lb/size) 2=159/0-3-8, 4=159/0-3-8 Max Horz 2=-18(LC 13) Max Uplift 2=-31(LC 12), 4=-31(LC 13)

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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4. 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



🙏 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE ARXING - Verify design parameters and READ NOTES ON THIS AND INCLODED INTER REPERENCE PAGE MIL-14's rev. Invozen's Derrore 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





Structural wood sheathing directly applied or 5-0-0 oc purlins.

TOP CHORD BOT CHORD

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



#### LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2OTHERS2x4 SP No.3

 TOP CHORD
 Structural wood sheathing directly applied or 4-11-11 oc purlins.

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

REACTIONS. (Ib/size) 2=116/3-10-5, 4=116/3-10-5, 6=119/3-10-5 Max Horz 2=-56(LC 10) Max Uplift 2=-27(LC 13), 4=-32(LC 13)

Max Grav 2=116(LC 1), 4=116(LC 1), 6=120(LC 3)

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

#### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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

 See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.







ł	4.9-0				
LOADING         (psf)         SPACING-         2-0-0           TCLL         20.0         Plate Grip DOL         1.15           TCDL         10.0         Lumber DOL         1.15           BCLL         0.0 *         Rep Stress Incr         NO           BCDL         10.0         Code IRC2015/TPI2014	CSI. TC 0.38 BC 0.28 WB 0.00 Matrix-P	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         -0.03         2-4         >999         240           Vert(CT)         -0.05         2-4         >999         180           Horz(CT)         -0.00         3         n/a         n/a	PLATES         GRIP           MT20         244/190           Weight: 17 lb         FT = 20%		

BRACING-TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2

REACTIONS. (Ib/size) 3=124/Mechanical, 2=271/0-3-15, 4=45/Mechanical Max Horz 2=97(LC 8) Max Uplift 3=-74(LC 8), 2=-47(LC 8) Max Grav 3=124(LC 1), 2=271(LC 1), 4=90(LC 3)

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

# NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWERS (anyelone) gable and zone; captilayer left and right avroaded and vortical left and right avroaded lumber DCL 4.00 at the second secon
- 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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) 3, 2.
- 6) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-3=-60, 2-4=-20



Structural wood sheathing directly applied or 4-9-0 oc purlins.

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





		4-3-0	
LOADING         (psf)         SPACING-         2-0-0           TCLL         20.0         Plate Grip DOL         1.15           TCDL         10.0         Lumber DOL         1.15           BCLL         0.0 *         Rep Stress Incr         YES           BCDL         10.0         Code IRC2015/TPI2014         10	CSI. TC 0.26 BC 0.20 WB 0.00 Matrix-P	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         -0.02         2-4         >999         240           Vert(CT)         -0.03         2-4         >999         180           Horz(CT)         -0.00         3         n/a         n/a	PLATES         GRIP           MT20         244/190           Weight: 15 lb         FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 4-3-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 3=112/Mechanical, 2=240/0-3-8, 4=40/Mechanical Max Horz 2=98(LC 12) Max Uplift 3=-71(LC 12), 2=-36(LC 12) Max Grav 3=112(LC 1), 2=240(LC 1), 4=81(LC 3)

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

### NOTES-

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right

exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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) 3, 2.







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LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2015/TPI2014	<b>CSI.</b> TC 0.26 BC 0.19 WB 0.00 Matrix-P	DEFL.         in         (loc)         l/defl         L/           Vert(LL)         -0.02         2-4         >999         24           Vert(CT)         -0.03         2-4         >999         18           Horz(CT)         -0.00         3         n/a         n/	d PLATES GRIP 0 MT20 244/190 0 a Weight: 15 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 4-2-7 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 3=110/Mechanical, 2=238/0-3-8, 4=40/Mechanical Max Horz 2=89(LC 12) Max Uplift 3=-67(LC 12), 2=-39(LC 12) Max Grav 3=110(LC 1), 2=238(LC 1), 4=80(LC 3)

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

### NOTES-

 Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right

exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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) 3, 2.







LUMBER-
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TOP CHORD2x4 SP No.3BOT CHORD2x4 SP No.3OTHERS2x4 SP No.3

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 4-0-14 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=81/4-0-6, 3=81/4-0-6, 4=109/4-0-6 Max Horz 1=-42(LC 8) Max Uplift 1=-20(LC 13), 3=-20(LC 13)

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

#### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 20 lb uplift at joint 3.







		3-1-12			
LOADIN TCU	G (psf) 20.0	SPACING- 2-0-0 Plate Grip DOI 1.15	<b>CSI.</b> TC 0.13	DEFL.         in         (loc)         I/defl         L/d         PLATES         GRIP           Vert/(1)         -0.00         2-4         >999         240         MT20         244/190	
TCDL	10.0	Lumber DOL 1.15	BC 0.11	Vert(CT) -0.01 2-4 >999 180	
BCLL BCDL	0.0 * 10.0	Rep Stress Incr NO Code IRC2015/TPI2014	WB 0.00 Matrix-P	Horz(CT) -0.00 3 n/a n/a Weight: 12 lb FT = 20%	

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2

SP No.2 SP No.2 BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 3-1-15 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (Ib/size) 3=71/Mechanical, 2=214/0-3-9, 4=30/Mechanical Max Horz 2=69(LC 12) Max Uplift 3=-45(LC 12), 2=-44(LC 12) Max Grav 3=71(LC 1), 2=214(LC 1), 4=59(LC 3)

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

NOTES-

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right

exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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) 3, 2.







		1-11-15	
LOADING         (psf)         SPACING-         2-0-0           TCLL         20.0         Plate Grip DOL         1.15           TCDL         10.0         Lumber DOL         1.15           BCLL         0.0 *         Rep Stress Incr         YES           BCDL         10.0         Code IRC2015/TPI2014         14	CSI.         DEF           TC         0.07         Vert           BC         0.04         Vert           WB         0.00         Hor:           Matrix-P         Kert         Kert	in         (loc)         l/defl         L/d           (LL)         -0.00         2         >999         240           (CT)         -0.00         2-4         >999         180           c(CT)         -0.00         3         n/a         n/a	PLATES         GRIP           MT20         244/190           Weight: 8 lb         FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 1-11-15 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 3=42/Mechanical, 2=156/0-3-8, 4=20/Mechanical Max Horz 2=55(LC 12) Max Uplift 3=-29(LC 12), 2=-33(LC 12) Max Grav 3=42(LC 1), 2=156(LC 1), 4=39(LC 3)

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

### NOTES-

 Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right

exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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) 3, 2.





