

Trenco 818 Soundside Rd Edenton, NC 27932

Re: P02236-24939 1037 Serenity

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Lumber 2383 (Dunn, NC).

Pages or sheets covered by this seal: I73305307 thru I73305354

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844



May 8,2025

Gilbert, Eric

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.

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	A01	Common	6	1	Job Reference (optional)	173305307

 Run:
 9.13 S
 8.83 Apr
 24 2025 Print:
 8.830 S
 Apr
 24 2025 MiTek Industries, Inc. Wed May 07 10:44:19
 Page:
 1

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Scale - 1:74 6		Γ	9-	8-13	I	9-5-5		1		9-8-13		1		
Plate Offsets	(X. Y): [2:0-3-13.0-0-1]	. [10:0-3-13.0-0-1]												—
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	5/TPI2014	CSI TC BC WB Matrix-MS	0.69 0.82 0.32	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.39 -0.51 0.06	(loc) 12-14 12-14 10	l/defl >886 >679 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 138 lb	GRIP 244/190 FT = 20%	_
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Unbalanc this desig 2) Wind: AS Vasd=10 II; Exp B; and C-C 14-5-8, E to 29-9-8	2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 *Excep Left 2x4 SP No.3 - 1 1-6-0 Structural wood shea 3-4-9 oc purlins. Rigid ceiling directly bracing. (size) 2=0-5-8, 1 Max Horiz 2=-128 (Li Max Uplift 2=-332 (Li Max Grav 2=1065 (L (lb) - Maximum Com Tension 1-2=0/23, 2-4=-1676 6-8=-1479/509, 8-10 2-14=-483/1429, 12- 10-12=-368/1429 6-12=-228/525, 8-12 6-14=-228/525, 8-12 6-14=-228/525, 8-14 et roof live loads have in. CE 7-10; Vult=130mph 3mph; TCDL=3.0psf; BK Enclosed; MWFRS (en Exterior (2) 10-10-8 to 2 xterior (2) 10-10-8 to 7 xterior (2) 10-10-8 to 7	t* 12-8,14-4:2x4 SP -6-0, Right 2x4 SP athing directly applie applied or 8-5-2 oc 0=0-5-8 C 17) C 16), 10=-332 (LC C 2), 10=1065 (LC pression/Maximum /507, 4-6=-1479/50 =-1676/507, 10-11= 14=-213/974, =-401/289, =-401/288 been considered fo (3-second gust) CDL=3.0psf; h=25ft; velope) exterior zor -1-8, Interior (1) 2-1 5-8, Interior (1) 17-5 4 right exposed - en	3 No.3 4 ed or 6 7 17) 8 9, 9 e0/23 L r Cat. ne -8 to 5-8 d	 TCLL: ASC Plate DOL= psf (flat rool Category II; Unbalanced design. This truss h load of 12.0 overhangs r Building De verifying Ra requirement This truss h chord live lc * This truss on the botto 3-06-00 tall chord and a Provide mee bearing plat 2 and 332 lt OAD CASE(S) 	E 7-10; Pr=20.0 1.15); Pg=15.0 p snow: Lum DOI Exp B; Partially snow loads hav as been designe psf or 1.00 time ion-concurrent w signer/Project er in Load = 5.0 (p; s specific to the as been designe ad nonconcurrent has been designe m chord in all ar by 2-00-00 wide ny other membe chanical connect e capable of with o uplift at joint 10 Standard	psf (roof LL psf (ground L=1.15 Plat Exp.; Ct=1 ve been cor ed for great s flat roof le vith other lin sf) covers r use of this ed for a 10.0 nt with any reas where will fit betv bers, with BC tion (by oth hstanding 3).	:: Lum DOL= snow); Pf=1 e DOL=1.15; .10 nsidered for t er of min rool aad of 11.5 p ve loads. ponsible for ain loading truss compo 0 ps bottom other live load e load of 20. a rectangle veen the bott :DL = 5.0psf. ers) of truss : :32 lb uplift at	1.15 1.5); f live sf on nent. ads. Opsf om to				SEA 0363	ROLL22	

to 29-9-8 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

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 property 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 ANSUFP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road Edenton, NC 27932

A. GILP.... May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	A01H	Common	2	1	Job Reference (optional)	173305308

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:20 Page: 1 ID:Em88tevTnWghxZFSOoio1wzKaaq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





	9-8-13	15-11-0	19-2-3	28-11-0	
Scale - 1:74 6	9-8-13	6-2-3	3-3-3	9-8-13	_

Plate Offsets (X, Y): [2:0-4-1,Edge], [10:0-3-13,0-0-1], [12:0-1-12,0-2-0], [14:0-1-12,0-2-0]

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015	5/TPI2014	CSI TC BC WB Matrix-MS	0.81 0.66 0.62	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.13 -0.20 0.06	(loc) 14-17 14-17 10	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 166 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Unbalanc this desig 2) Wind: AS	2x4 SP No.2 2x4 SP No.2 *Excep 2x4 SP No.2 *Excep Left 2x4 SP No.3 - 1 1-6-0 Structural wood shea 2-2-0 oc purlins. Rigid ceiling directly bracing. (size) 2=0-5-8, 1 Max Horiz 2=-128 (L Max Uplift 2=-368 (L Max Grav 2=1159 (L (lb) - Maximum Com Tension 1-2=0/23, 2-4=-1863 6-8=-1731/621, 8-10 0-2-14=-548/1595, 12- 10-12=-466/1652 6-12=-298/696, 8-12 6-14=-224/503, 4-14 ered roof live loads have in. CE 7-10; Vult=130mph	t* 14-12:2x8 SP DS; t* 12-8,14-4:2x4 SP 1-6-0, Right 2x4 SP 1-0, Right 2x4 SP 1-0, Right 2x4 SP 10=0-5-8 C 17) C 16), 10=-380 (LC C 2), 10=1191 (LC 2), 10=119	3) S No.3 4) 5) od or 5 6) 7) 17) 8) 2) 8) 0/23 9) 0/23 LC 1)	TCLL: ASCE Plate DOL=1 psf (flat roof Category II; I Unbalanced design. This truss ha load of 12.0 J overhangs m Building Dess verifying Raii requirements This truss ha chord live loa * This truss ha chord and ar Provide mec bearing plate 2 and 380 lb AD CASE(S) Dead + Sno Increase=1 Uniform Loa Vert: 1-6	7-10; Pr=20.0 psf .15); Pg=15.0 psf .15); Pg=15.0 psf snow: Lum DOL=1 Exp B; Partially Exp snow loads have b is been designed for psf or 1.00 times fit con-concurrent with igner/Project engin n Load = 5.0 (psf) or is specific to the use is been designed for ad nonconcurrent with igner/Project engin n Load = 5.0 (psf) or is specific to the use is been designed for ad nonconcurrent with igner/Project engin n Load = 5.0 (psf) or is specific to the use is been designed for ad nonconcurrent with igner/Project engin n Load = 5.0 (psf) or specific to the use is been designed for ad nonconcurrent with igner/Project engin n Load = 5.0 (psf) or is specific to the use is pecific to	(roof LL ground 15 Plat 5.; Ct=1 een cor or greate at roof le other line eer response for a 10.0 vith any for a live where if th betw with BC (by oth inding 3 aber Inc	: Lum DOL= snow); Pf=1' e DOL=1.15) .10 isidered for the er of min roof pad of 11.5 p; ve loads. ponsible for ain loading truss compoint other live load e load of 20.0 a rectangle veen the botti DL = 5.0psf. ers) of truss the 68 lb uplift at rease=1.15, I , 6-31=-40	1.15 1.5 ;; his f live sf on nent. ds. Opsf om t joint Plate				OFTESS	ROLIN	
Vasd=103 II; Exp B; and C-C	3mph; TCDL=3.0psf; B(Enclosed; MWFRS (en Exterior (2) -0-10-8 to 2	CDL=3.0psf; h=25ft; avelope) exterior zon -1-8, Interior (1) 2-1-	Cat. e ·8 to									SEA 03632	22	11111

14-5-8, Exterior (2) 14-5-8 to 17-5-8, Interior (1) 17-5-8 to 29-9-8 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



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	A02H	Common	1	1	Job Reference (optional)	173305309

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:21 ID:zCbTMdhMOUnv83QsQpMzuezKaXD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





	9-8-13	15-11-0	19-2-3	28-11-0
Scale = 1:74.6	9-8-13	6-2-3	3-3-3	9-8-13

Plate Offsets (X, Y): [2:0-4-1,Edge], [10:0-3-9,0-1-5], [11:0-1-12,0-2-0], [13:0-1-12,0-2-0]

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC20	15/TPI2014	CSI TC BC WB Matrix-MS	0.96 0.73 0.62	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.13 -0.21 0.06	(loc) 13-16 11-20 10	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 164 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 *Excep 2x4 SP No.2 *Excep Left 2x4 SP No.3 1 1-6-0 Structural wood shea Rigid ceiling directly bracing. (size) 2=0-5-8, 1 Max Horiz 2=135 (LC Max Uplift 2=-368 (L) Max CPU 2=-135 (LC	t* 13-11:2x8 SP DS5 t* 11-8,13-4:2x4 SP I-6-0, Right 2x4 SP N athing directly applie applied or 7-10-14 c 0=0-5-8 2 20) C 16), 10=-356 (LC - 2), 10=-1337 (LC -	3 No.3 No.3 4 No.3 4 5 Id. DC 6 17) 7) TCLL: ASCE Plate DOL=1 psf (flat roof s Category II; II)) Unbalanced design.) This truss ha load of 12.0 µ overhangs no) Building Des verifying Raii requirements) This truss ha chord live loa 	7-10; Pr=20.0 psf .15); Pg=15.0 psf snow: Lum DOL=1 Exp B; Partially Ex snow loads have b s been designed f por-concurrent with gner/Project engin h Load = 5.0 (psf) s specific to the us s been designed f ad nonconcurrent to	f (roof LL (ground 1.15 Plat p:, Ct=1 been cor for great lat roof k n other lin neer res covers r e of this for a 10.0 with any	: Lum DOL= snow); Pf=1 e DOL=1.15/ .10 isidered for t er of min roof bad of 11.5 p ve loads. bonsible for ain loading truss compo 0 psf bottom other live loa	n.1.15 1.5); his f live sf on nent.					
	(Ib) - Maximum Com Tension	pression/Maximum	-/ 8	on the botton 3-06-00 tall b	as been designed n chord in all areas by 2-00-00 wide wi	s where ill fit betv	e load of 20.0 a rectangle veen the bott	om					
BOT CHORD	6-8=-1734/634, 8-10 2-13=-555/1595, 11- 10-11=-482/1655	=-1931/632 =-289/1151,	, 9) Provide mecl bearing plate	hanical connection capable of withsta	n (by oth anding 3	ers) of truss 68 lb uplift a	to t joint					
WEBS	6-11=-299/699, 8-11 6-13=-224/502, 4-13	=-394/286, =-394/285	L 1	OAD CASE(S)) Dead + Snc	Standard w (balanced): Lur	nber Inc	rease=1.15,	Plate				WHICA	Politi
NOTES				Increase=1.	15							211 01	10/14
1) Unbalance this design	ed roof live loads have	been considered for		Uniform Loa Vert: 1-6	ads (lb/ft) =-43, 6-10=-43, 14	4-18=-10	, 6-29=-40			1	A. C.	OFESS	N. A.

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 14-5-8, Exterior (2) 14-5-8 to 17-5-8, Interior (1) 17-5-8 to 28-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	A03	Common	2	1	Job Reference (optional)	173305310

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:21 Page: 1 ID:ZVfo7yaoKKwVluWUhqYmgfzKayU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





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Scale = 1:74.6	i .		9.	-8-13		9-5-	0			9-8-1	3		
Plate Offsets	(X, Y): [2:0-3-13,0-0-1]], [10:0-3-13,0-0-1]											
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	5/TPI2014	CSI TC BC WB Matrix-MS	0.69 0.82 0.33	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.39 -0.51 0.06	(loc) 11-13 11-13 10	l/defl >886 >681 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 136 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 *Excep Left 2x4 SP No.3 1 1-6-0 Structural wood shea 3-3-7 oc purlins. Rigid ceiling directly bracing. (size) 2=0-5-8, 1 Max Horiz 2=135 (LC Max Uplift 2=-332 (L Max Grav 2=1065 (L	t* 11-8,13-4:2x4 SP I-6-0, Right 2x4 SP athing directly applie applied or 8-4-7 oc 10= Mechanical 2 20) C 16), 10=-308 (LC C 2), 10=1011 (LC	3) No.3 4) ed or 6) 7) 17) 8)	TCLL: ASCE Plate DOL= psf (flat roof Category II; Unbalanced design. This truss ha load of 12.0 overhangs n Building Des verifying Rai requirement This truss ha chord live Io. * This truss ha	7-10; Pr=20.0 ps 1.15); Pg=15.0 ps snow: Lum DOL= Exp B; Partially E: snow loads have as been designed psf or 1.00 times i on-concurrent witt signer/Project engi n Load = 5.0 (psf) s specific to the us as been designed ad nonconcurrent has been designed	of (roof Ll f (ground 1.15 Plai xp.; Ct=1 been cor for great flat roof le h other lin ineer res covers r se of this for a 10. with any d for a liv p where	: Lum DOL= snow); Pf=1 te DOL=1.15 .10 rsidered for t er of min roo bad of 11.5 p ve loads. ponsible for ain loading truss compo 0 psf bottom other live loa e load of 20.	1.15 1.5); his f live osf on onent. ads. Opsf					
FORCES	(lb) - Maximum Com Tension 1-2=0/23, 2-4=-1677	pression/Maximum	9, 9)	3-06-00 tall I chord and an Refer to gird	by 2-00-00 wide w ny other members ler(s) for truss to the	vill fit betw , with BC russ conr	veen the bott DL = 5.0psf. nections.	tom					
BOT CHORD	2-13=-491/1431, 11- 10-11=-383/1434	-1681/521 13=-220/976,	10	bearing plate 2 and 308 lb	chanical connection capable of withs puplift at joint 10.	n (by oth tanding 3	ers) of truss 332 lb uplift a	to t joint					1
WEBS	6-11=-229/529, 8-11 6-13=-228/525, 4-13	=-403/289, =-401/288	L	DAD CASE(S)	Standard							TH CA	Routh
NOTES 1) Unbalanc this desig 2) Wind: AS Vasd=100 II; Exp B; and C-C E 14-5-8, E: to 28-11-(vertical le forces & N DOL=1.60	ed roof live loads have n. CE 7-10; Vult=130mph 3mph; TCDL=3.0psf; B(Enclosed; MWFRS (en Exterior (2) -0-10-8 to 2 xterior (2) 14-5-8 to 17- 0 zone; cantilever left ai ft and right exposed;C- WWFRS for reactions sl 0 plate grip DOL=1.60	been considered fo (3-second gust) CDL=3.0psf; h=25ft; velope) exterior zor -1-8, Interior (1) 2-1 5-8, Interior (1) 17-5 nd right exposed ; e C for members and hown; Lumber	r Cat. ne -8 to 5-8 nd							4.11111		SEA 0363	L22 ILBERTITI

GI 11111111 May 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	A03H	Common	2	1	Job Reference (optional)	173305311

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:21 Page: 1 ID:ZVfo7yaoKKwVluWUhqYmgfzKayU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





	9-8-13	15-11-0	19-2-3	28-11-0	
Scale = 1:74.6	9-8-13	6-2-3	3-3-3	9-8-13	

Plate Offsets (X, Y): [2:0-3-13,0-0-1], [11:0-4-1,Edge], [12:0-4-12,0-2-4], [14:0-1-8,0-2-0]

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-3-8 1.15 1.15 NO IRC2015	5/TPI2014	CSI TC BC WB Matrix-MS	0.99 0.88 0.62	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.16 -0.27 0.07	(loc) 12-21 12-21 11	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 171 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.1 *Excep 2x4 SP No.2 *Excep 2x4 SP No.3 *Excep Left 2x4 SP No.3 - 1 1-6-0 Structural wood shea 2-10-9 oc purlins. Rigid ceiling directly bracing. (size) 2=0-5-8, 1 Max Horiz 2=155 (LC Max Uplift 2=-418 (LI Max Grav 2=1318 (LI	t* 6-7:2x4 SP No.2 t* 14-12:2x8 SP DSS t* 12-6,14-6:2x4 SP I-6-0, Right 2x4 SP N athing directly applie applied or 7-5-0 oc I1= Mechanical C 20) C 16), 11=-403 (LC 2 C 2), 11=1291 (LC 2	3) 5 No.2 No.3 4) 5) d or 6) 7) 17) 8)	TCLL: ASCE Plate DOL=1 psf (flat roof s Category II; E Unbalanced s design. This truss ha load of 12.0 p overhangs no Building Desi verifying Rain requirements This truss ha chord live loa * This truss h on the bottom	7-10; Pr=20.0 psf 7-10; Pg=15.0 psf .15); Pg=15.0 psf .15); Pg=15.0 psf .15); Pg=15.0 psf .10); Lum DOL=1. Exp B; Partially Exp show loads have be so been designed for a specific to the uses s been designed for d nonconcurrent with an chord in all areas	(roof LL ground 15 Plat).; Ct=1 een cor or greate at roof lo other liv eer res covers r covers r of this or a 10.0 ith any for a liv where	: Lum DOL= snow); Pf=1' e DOL=1.15) 10 isidered for th er of min roof bad of 11.5 p; re loads. bonsible for ain loading truss compoi o ther live load e load of 20.0 a rectangle	1.15 I.5 ; his live sf on hent. ds. Dpsf				-		
FORCES	(Ib) - Maximum Com Tension 1-2=0/27, 2-4=-2116	pression/Maximum	, 9)	3-06-00 tall b chord and an Refer to girde	y 2-00-00 wide will y other members, v er(s) for truss to tru	fit betw with BC ss conr	veen the botto $DL = 5.0psf.$	m						
BOT CHORD WEBS	9-11=-2274/737 2-14=-629/1811, 12- 11-12=-560/1943 6-12=-404/950, 9-12 6-14=-248/535, 4-14 8-12=-214/136	-2033/12, 14=-328/1327, 2=-286/223, 454/330,	10 11 LC	 Provide mech bearing plate 2 and 403 lb In the LOAD of the truss a AD CASE(S) 	nanical connection capable of withsta uplift at joint 11. CASE(S) section, I re noted as front (F Standard	(by oth nding 4 oads aj ⁻) or ba	ers) of truss t 18 lb uplift at oplied to the f ck (B).	o joint ace			in the	ORTH CA	ROLIN	
NOTES	0-12=214/130		1)	Dead + Sno Increase=1	w (balanced): Lum 15	ber Inc	rease=1.15, I	Plate		2	2		2 All	•
 Unbalance this design Wind: ASC Vasd=103 II; Exp B; I and C-C E 14-5-8, Ex to 28-11-0 vertical lef forces & M DOL = 1.60 	ed roof live loads have h. CE 7-10; Vult=130mph mph; TCDL=3.0psf; BG Enclosed; MWFRS (en xiterior (2) -0-10-8 to 2: terior (2) 14-5-8 to 17- zone; cantilever left and t and right exposed;C-1 IWFRS for reactions s1 plate grip DOI = 1.60	been considered for (3-second gust) CDL=3.0psf; h=25ft; vvelope) exterior zone -1-8, Interior (1) 2-1- 5-8, Interior (1) 17-5- nd right exposed ; er C for members and hown; Lumber	Cat. e 8 to -8 Id	Uniform Loa Vert: 1-6=	ads (lb/ft) =-49, 6-11=-49, 15-	·19=-11	, 6-12=-40 (F)		THE PROPERTY OF THE PROPERTY O		SEAI 03632	22 EF. R. I.	

II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 14-5-8, Exterior (2) 14-5-8 to 17-5-8, Interior (1) 17-5-8 to 28-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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818 Soundside Road Edenton, NC 27932

minin May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	A04	Нір	1	1	Job Reference (optional)	173305312

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:22 ID:SGvlyJdIOZRxnWpFwgciqVzKayQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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	5-8-11	11-0-1	17-10-15	23-2-5	28-11-0
Scale = 1:67.7	5-8-11	5-3-7	6-10-13	5-3-7	5-8-11

Plate Offsets (X, Y): [2:0-4-1,Edge], [5:0-3-0,0-2-0], [6:0-3-0,0-2-0], [9:0-4-1,Edge]

			-										
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL	(psf) 20.0 16.5/15.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015	5/TPI2014	CSI TC BC WB Matrix-MS	1.00 0.68 0.32	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.09 -0.17 0.07	(loc) 11-13 11-13 9	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190
BCDL	5.0											Weight: 152 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Left 2x4 SP No.3 - 1 1-6-0 Structural wood she: 3-7-2 oc purlins, exc 2-0-0 oc purlins (2-2	t* 11-5:2x4 SP No.2 I-6-0, Right 2x4 SP N athing directly applied rept -0 max.): 5-6.	2) 0.3 or 3)	Wind: ASCE Vasd=103mp II; Exp B; En- and C-C Exte 11-1-13, Exte 15-4-12 to 17 (1) 22-0-1 to exposed ; en members an- Lumber DOL TCLL: ASCE	7-10; Vult=130mpf h; TCDL=3.0psf; B closed; MWFRS (er prior (2) -0-10-8 to 2 prior (2) 1-1-13 to '-9-3, Exterior (2) 1 28-11-0 zone; cant d vertical left and ri d forces & MWFRS =1.60 plate grip DC 7-10; Pf=20.0 psf	(3-sec CDL=3 nvelope 2-1-8, lr 15-4-12 7-9-3 to ilever lo ght exp for rea DL=1.60 (roof LL	cond gust) .0psf; h=25ft; b) exterior zor therior (1) 2-1 2, Interior (1) 22-0-1, Interior and right isosed;C-C for ctions shown) : Lum DOL=	; Cat. ne -8 to rior ; 1,15					
BOT CHORD	Rigid ceiling directly bracing.	applied or 8-7-12 oc	3)	Plate DOL=1	.15); Pg=15.0 psf (ground	snow); Pf=16	6.5					
WEBS	1 Row at midnt	5-11		psf (flat roof	snow: Lum DOL=1.	15 Plat	e DOL=1.15)	;					
REACTIONS	(size) 2=0-5-8, 9 Max Horiz 2=108 (LC Max Uplift 2=-308 (L Max Grav 2=1116 (L	9= Mechanical C 20) C 16), 9=-284 (LC 17) LC 39), 9=1077 (LC 39	4) 5)	Category II; I Unbalanced design. This truss ha load of 12.0 t	Exp B; Partially Exp snow loads have be s been designed fo osf or 1.00 times fla	.; Ct=1 een cor r greate t roof lo	.10, Lu=50-0- nsidered for the er of min roof bad of 11.5 ps	-0 nis live sf on					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	6)	overhangs no	on-concurrent with	other liv	/e loads.						
TOP CHORD	1-2=0/23, 2-4=-1772 5-6=-1191/510, 6-7= 7-9=-1776/569	2/570, 4-5=-1409/519, 1410/516,	7)	verifying Rain requirements Provide adec	Load = 5.0 (psf) c specific to the use	overs r of this	ain loading truss compor	nent.					11111
BOT CHORD	2-14=-463/1514, 13- 11-13=-325/1190, 10 9-10=-454/1519	14=-463/1514,)-11=-454/1519,	8)	This truss ha chord live loa * This truss h	s been designed fo id nonconcurrent w	r a 10.0 ith any) psf bottom other live loa e load of 20 (ds. Dosf			in	ORTH CA	ROLIN
WEBS	4-14=0/118, 4-13=-4 5-11=-135/137, 6-11 7-10=0/119	27/221, 5-13=-77/329 =-59/307, 7-11=-431/), 224,	on the botton 3-06-00 tall b	n chord in all areas y 2-00-00 wide will	where fit betw	a rectangle leen the botto	om		Z			2000
NOTES			10	Refer to girde	er(s) for truss to true	ss conr	ections.					SEA	
 Unbalance this design 	ed roof live loads have 1.	been considered for	10, 11) 12, LO	 Provide mecl bearing plate 9 and 308 lb Graphical pu or the orienta bottom chord DAD CASE(S) 	capable of withsta uplift at joint 2. rlin representation of tion of the purlin al Standard	(by oth nding 2 does no ong the	ers) of truss t 84 lb uplift at ot depict the s top and/or	o ; joint size		111 WY			EP. K

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May 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	A05	Нір	1	1	Job Reference (optional)	173305313

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:22 ID:K18pohgpSoxNF7709Whe_LzKayM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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	9-4-1	19-6-15	28-11-0
	9-4-1	10-2-13	9-4-1
Scale = 1:64.1			

Plate Offsets (X, Y): [2:0-3-13,0-0-1], [5:0-3-0,0-2-0], [7:0-3-0,0-2-0], [10:0-3-13,0-0-1]

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 16.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	5/TPI2014	CSI TC BC WB Matrix-MS	0.58 0.80 0.30	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.29 -0.46 0.07	(loc) 11-13 11-13 10	l/defl >999 >762 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 146 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Left 2x4 SP No.3 - 1 1-6-0 Structural wood shea 3-5-15 oc purlins, ex	t* 13-6,11-6:2x4 SP I-6-0, Right 2x4 SP I athing directly applie icept	2) No.2 No.3 ed or	Wind: ASCE Vasd=103mp II; Exp B; En- and C-C Exte 9-5-13, Exter 13-8-12 to 19 (1) 23-8-1 to exposed ; en members an Lumber DOI	7-10; Vult=130m bh; TCDL=3.0psf; closed; MWFRS (irior (2) -0-10-8 tc ior (2) 9-5-13 to 1)-5-3; Exterior (2) 28-11-0 zone; cal d vertical left and d forces & MWFR =1.60 plate grin Γ	bh (3-sec BCDL=3 envelope 2-1-8, Ir 3-8-12, I 19-5-3 to ntilever lo right exp S for rea	ond gust) .0psf; h=25ft) exterior zon terior (1) 2-1 nterior (1) o 23-8-1, Inte sft and right osed;C-C for ctions shown	; Cat. ne I-8 to rior r						
BOT CHORD	2-0-0 oc purlins (4-1 Rigid ceiling directly bracing. (size) 2=0-5-8, 1 Max Horiz 2=94 (LC Max Uplift 2=-293 (L Max Gray, 2=1065 (I	1-5 max.): 5-7. applied or 8-3-8 oc 10= Mechanical 16) C 16), 10=-269 (LC C 2) 10=1011 (LC	3) 17) ⁴⁾	TCLL: ASCE Plate DOL=1 psf (flat roof : Category II; I Unbalanced design.	7-10; Pr=20.0 ps .15); Pg=15.0 psf snow: Lum DOL= Exp B; Partially E snow loads have	f (roof LL (ground 1.15 Plat (p.; Ct=1 been cor	: Lum DOL= snow); Pf=16 e DOL=1.15) 10, Lu=50-0 isidered for th	1.15 6.5); -0 his						
FORCES	(lb) - Maximum Com	pression/Maximum	2) 5)	This truss ha load of 12.0	s been designed osf or 1.00 times f	for greate lat roof lo	er of min roof ad of 11.5 p	f live sf on						
TOP CHORD	1-2=0/30, 2-4=-1714 5-6=-1278/520, 6-7= 7-8=-1505/531, 8-10	/608, 4-5=-1502/534 1280/517,)=-1720/606	4, 6)	Building Des verifying Rain requirements	igner/Project engi h Load = 5.0 (psf) specific to the us	neer resp covers r se of this	ve loads. oonsible for ain loading truss compoi	nent.					1	
BOT CHORD	2-13=-498/1472, 11- 10-11=-489/1478	13=-427/1440,	7) 8)	Provide adec This truss ha	uate drainage to s been designed	prevent v for a 10.0	vater ponding psf bottom	g.				TH CA	ROUL	
WEBS	4-13=-318/199, 5-13 6-13=-326/166, 6-11 7-11=-101/384, 8-11	=-95/383, =-324/166, =-325/201	9)	chord live loa * This truss h on the botton	ad nonconcurrent las been designed n chord in all area	with any d for a liv is where	other live loa e load of 20.0 a rectangle	ids. Opsf		6	Ä	OFFEESO	Ale Ale	2
NOTES 1) Unbalance this desigr	ed roof live loads have n.	been considered for	10 11	3-06-00 tall b chord and an) Refer to girdd) Provide mecl bearing plate 10 and 293 II) Graphical pu or the orienta bottom chord	y 2-00-00 wide w by other members er(s) for truss to tr hanical connection capable of withst o uplift at joint 2. rlin representation titon of the purlin l.	ill fit betw , with BC uss conr n (by oth anding 2 n does no along the	ween the both DL = 5.0psf. ections. ers) of truss t 69 lb uplift at tot depict the s top and/or	om to t joint size		ALL THEN A		SEA 0363	EP. K	A MARINE DE LA COMPANY

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 10 and 293 lb uplift at joint 2.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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G mm May 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	AE01	Common Supported Gable	1	1	Job Reference (optional)	173305314

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:22 ID:WUvEx9lt9KiA1zVCJLVXguzKacJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Scolo - 1:72 7			H				28-11-0)							
Plate Offsets ((X, Y): [2:0	-3-8,Edge],	[20:0-4-1,Edge]												
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	1	(psf) 20.0 1.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2	015/TPI2014	CSI TC BC WB Matrix-MS	0.07 0.06 0.13	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.01	(la	c) l/defl - n/a - n/a 20 n/a	L/d 999 999 n/a	PLATES MT20 Weight: 178 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS SLIDER	2x4 SP N 2x4 SP N 2x4 SP N SP No.2 Left 2x4 S 1-6-0	o.2 o.2 o.3 *Excep SP No.3 1	t* 29-11,30-10,27-1 1-6-0, Right 2x4 SP	2:2x4 No.3	FORCES	(lb) - Maximu Tension 1-2=0/23, 2-4 5-6=-77/95, 6 8-10=-81/216 12-14=-81/21 15-16=-48/12 18-20=-87/29	m Compressi =-140/67, 4-5 -7=-62/120, 7 , 10-11=-98/2 8, 14-15=-64, 2, 16-17=-48, , 20-21=0/23	on/Maximum i=-99/74, '-8=-64/166, '60, 11-12=-98 '169, '73, 17-18=-6'	3/263, 1/30,	4)5)6)	TCLL: ASC Plate DOL= psf (flat roc Category II Unbalance design. This truss h load of 12.0	E 7-10 =1.15); if snow ; Exp E d snow nas bee) psf or); Pr=20.0 psf (ro Pg=15.0 psf (gro : Lum DOL=1.15 3; Partially Exp.; ' loads have beer en designed for g : 1.00 times flat r	of LL: Lum DOL= bund snow); Pf=1 Plate DOL=1.15) Ct=1.10 n considered for the reater of min roof poof load of 11.5 p	1.15 1.5); his f live psf on
TOP CHORD BOT CHORD	Structura 6-0-0 oc Rigid ceil bracing.	l wood she purlins. ing directly	athing directly appli applied or 10-0-0 o	ed or oc	BOT CHORD	2-35=-25/113 32-33=-25/11 30-31=-25/11	, 34-35=-25/1 3, 31-32=-25/ 3, 29-30=-25/	13, 33-34=-28 (113, (113, (113,	5/113,	7)	overhangs Building De verifying Ra requiremer	non-co esigner, ain Loa its spec	Project enginee Project enginee d = 5.0 (psf) cov cific to the use of	responsible for ers rain loading this truss compo	nent.
REACTIONS	(size)	2=28-11-(22=28-11 24=28-11 26=28-11 29=28-11 31=28-11 33=28-11 35=28-11	0, 20=28-11-0, -0, 23=28-11-0, -0, 25=28-11-0, -0, 27=28-11-0, -0, 30=28-11-0, -0, 32=28-11-0, -0, 34=28-11-0, -0		WEBS	27-23-2011 25-26=-25/11 23-24=-25/11 20-22=-25/11 11-29=-132/1 8-31=-119/10 5-34=-117/89 12-27=-134/1	3, 24-25=-25/ 3, 22-23=-25/ 3 2, 10-30=-13/ 3, 7-32=-120/ , 4-35=-131/1 51, 14-26=-1	4/13, (113, 4/151, (94, 6-33=-12 ⁻ 41, 19/103,	1/97,	9) 10) 11) 12)	Gable requ Gable stud This truss h chord live h * This truss on the botto 3-06-00 tall	ires co s space bad no has be bad no has be om cho	(II) whice different of the solution of the so	any other live load of 20. a live load of 20. here a rectangle between the both	ads. Opsf
	Max Horiz Max Uplift Max Grav	2=-128 (L 2=-41 (LC 22=-112 (24=-76 (L 30=-73 (L 32=-72 (L 34=-58 (L 2=147 (LC 22=164 (L 24=142 (L 26=139 (L 29=152 (L 31=139 (L 33=142 (L 35=164 (L	C 21) C 21) C 17), 23=-61 (LC 13) LC 17), 23=-61 (LC C 17), 25=-72 (LC 15) C 17), 27=-71 (LC 15) C 16), 33=-76 (LC 15) C 16), 35=-122 (LC 15) C 2), 20=147 (LC 2) C 35), 25=140 (LC 2) C 35), 25=140 (LC 2) C 35), 25=140 (LC 2) C 33), 30=154 (LC 2) C 34), 34=133 (LC C 34)	3), ; 17), 17), 16), 16), ; 16), ; 16), ; 16), ; 22), 35), 24), 223), 34), 2),	NOTES 1) Unbalance this design 2) Wind: ASC Vasd=1037 II; Exp B; E and C-C C 14-5-8, Co to 29-9-8 z vertical left forces & M DOL=1.60 3) Truss desig only. For s see Standz or consult of	15-25=-120/9 17-23=-117/8 d roof live load E 7-10; Vult=1 mph; TCDL=3.0 inclosed; MWF prmer (3) -0-10 mer (3) -0-1	4, 16-24=-12' 8, 18-22=-13' s have been (30mph (3-sec 0psf; BCDL=3 RS (envelope 8 to 2-1-8, Ez to 17-5-8, Ex left and right ised;C-C for n tions shown; =1.60 bads in the pla to wind (norm ble End Deta ig designer as	1/97, 1/141 considered for .0psf; h=25ft; s) exterior zon terior (2) 2-1- terior (2) 2-1- terior (2) 2-1- terior (2) 2-1- terior zon terior (2) 2-1- terior zon terior zon terior terior zon terior	Cat. e 8 to -8 d ss , ole, 11.		chord and a		SEA 0363	L 22 EEFR. AT IN	Mannung

May 8,2025

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Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TP1** Quality **Criteria and DSB-22** available form Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	AE01	Common Supported Gable	1	1	Job Reference (optional)	173305314

13) Provide mechanical connection (by others) of truss to

bearing plate capable of withstanding 41 lb uplift at joint 2, 17 lb uplift at joint 20, 73 lb uplift at joint 30, 74 lb uplift

- at joint 31, 72 lb uplift at joint 32, 76 lb uplift at joint 33, 58 lb uplift at joint 34, 122 lb uplift at joint 35, 71 lb uplift
- at joint 27, 75 lb uplift at joint 26, 72 lb uplift at joint 25,
- 76 lb uplift at joint 24, 61 lb uplift at joint 23, 112 lb uplift
- at joint 22, 41 lb uplift at joint 2 and 17 lb uplift at joint 20.

LOAD CASE(S) Standard

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:22 Page: 2 ID:WUvEx9lt9KiA1zVCJLVXguzKacJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	B01	Common	1	1	Job Reference (optional)	173305315

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:23 Page: 1 ID:6fX3yWvWzCWOIU_oZdhcolzIxMP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



			F	<u>7-9-12</u> 7-9-12		<u>15-7-8</u> 7-9-12						
$\frac{\text{Scale} = 1:60.4}{\text{Plate Offsets (X, Y):}}$	[2:0-3-8,Edge],	[4:0-3-8,Edge]										
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015	5/TPI2014	CSI TC BC WB Matrix-MS	0.76 0.41 0.30	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.07 -0.10 0.01	(loc) 6-7 6-7 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 91 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD BOT CHORD REACTIONS FORCES TOP CHORD WEBS NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103i II; Exp B; E and C-C E 7-9-12, Ex 10-9-12 to exposed ; members a Lumber DOL psf (flat roo Category I	2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 Structural wood shea 6-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 6=0-5-8, 8 Max Horiz 8=-207 (LI Max Gav 6=598 (LC (Ib) - Maximum Com Tension 1-2=0/39, 2-3=-567/' 4-5=0/39, 2-3=-567/' 1-2=0/39, 2-3=0, 2-3=-567/' 1-2=0/39, 2-3=0, 2-3=0, 2-	athing directly applied cept end verticals. applied or 8-9-15 oc 3=0-5-8 C 12) C 15), 8=-173 (LC 1/2 C 2), 8=598 (LC 2) pression/Maximum 178, 3-4=-567/178, 241, 4-6=-564/241 355/510 8/423, 4-7=-292/427 been considered for (3-second gust) CDL=3.0psf; h=25ft; ivelope) exterior zone -1-8, Interior (1) 2-1-9 9-12, Interior (1) 2-14, Interior (1) 2-15, Interior (1) 2-15, Interior (1) 2-15, Interior (1) 2-161 and right ght exposed; C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1, pround snow); Pf=11. 15 Plate DOL=1.15); ; Ct=1.10	4) 5) d or 6) 7) 4) 8) LC Cat. e 8 to .15 5	This truss ha load of 12.0 overhangs ne Building Des verifying Rain requirements This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar Provide mec bearing plate 8 and 173 lb	s been designed fo osf or 1.00 times fla on-concurrent with igner/Project engin in Load = 5.0 (psf) of specific to the use s been designed fo di nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members. hanical connection o capable of withsta uplift at joint 6. Standard	or greate at roof lo other live eer resp covers r or a 10.0 ith any for a liv where fit betw (by oth nding 1	er of min roof bad of 11.5 p ve loads. consible for ain loading truss compo 0 psf bottom other live loa e load of 20.1 a rectangle veen the bott ers) of truss t 73 lb uplift at	f live sf on nent. ads. 0psf om to t joint		Manutan .		SEA 0363	ROLL L 22 LBER	Mammin

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GI 1111111 May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BCJ01	Jack-Closed	1	1	Job Reference (optional)	173305316

7-5-13

-1-8-7

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334.

Run; 9.13 S 8.83 Apr 24 2025 Print; 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:23 Page: 1 ID:1QhkmTNl6QvnNRIPITG00HzKayk-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015	5/TPI2014	CSI TC BC WB Matrix-MP	0.96 0.66 0.12	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.18 -0.30 0.00	(loc) 4-5 4-5 4	l/defl >468 >289 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 43 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood sheat except end verticals. Rigid ceiling directly bracing. (size) 4= Mecha Max Horiz 5=170 (LC Max Uplift 4=-217 (L Max Grav 4=282 (LC	t* 4-2:2x4 SP No.2 athing directly applied applied or 9-5-3 oc nical, 5=0-9-7 C 13) C 16), 5=-196 (LC 16 C 2), 5=-196 (LC 2)	5) 6) d, 7) 8)	This truss ha load of 12.0 p overhangs no Building Des verifying Rain requirements This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an Refer to girdd	s been designed for bosh or 1.00 times fla on-concurrent with igner/Project engin n Load = 5.0 (psf) or s specific to the use s been designed for an onconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members. er(s) for truss to tru- basied compaction	or great at roof k other liv eer res covers r e of this or a 10.0 for a liv for a liv s where l fit betw	er of min rooi pad of 11.5 p ve loads. ponsible for ain loading truss compo 0 psf bottom other live loa e load of 20. a rectangle veen the bott nections.	f live isf on nent. ads. Opsf iom					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	10	bearing plate 5 and 217 lb	capable of withsta uplift at joint 4.	anding 1	96 lb uplift a	t joint					
TOP CHORD	2-5=-342/419, 1-2=0 3-4=-208/261)/44, 2-3=-183/107,	11	NAILED" inc NDS guidline	dicates 2-12d (0.14	8"x3.25	") toe-nails p	er					
BOT CHORD WEBS	4-5=-311/187 2-4=-136/266		12) In the LOAD of the truss a	CASE(S) section, are noted as front (I	loads a _l F) or ba	oplied to the ck (B).	face					
					e								

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=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-8-7 to 2-6-8, Exterior (2) 2-6-8 to 7-4-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (lb/ft)
 - Vert: 1-2=-43, 2-3=-43, 4-5=-10 Concentrated Loads (lb)

Vert: 11=-5 (B), 12=-4 (F), 14=-46 (F), 15=-3 (B)



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BE01	Common Supported Gable	1	1	Job Reference (optional)	173305317

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:23 Page: 1 ID:CLZ3sXkKfriHzbIWPR?Q1QzKbBm-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



5-1-8 5-1-8	1	5-1-8	10-3-0	
	I	5-1-8	5-1-8	1

Plate Offsets ((X, Y): [2:0-2-14,0-2-0], [6:0-2-14,0-2-0]												
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing 2 Plate Grip DOL 1 Lumber DOL 1 Rep Stress Incr Y Code IF	-0-0 .15 .15 ES RC2015	/TPI2014	CSI TC BC WB Matrix-MS	0.31 0.17 0.28	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.00	(loc) 8-9 9-10 8	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 70 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD JOINTS REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. 1 Brace at Jt(s): 11, 12 (size) 8=10-3-0, Max Horiz 10=154 (L Max Uplift 8=-43 (LC	athing directly applied or cept end verticals. applied or 10-0-0 oc , 9=10-3-0, 10=10-3-0 _C 13) 2 15), 9=-157 (LC 14),	2) r 3) 4)	Wind: ASCE Vasd=103mg II; Exp B; En and C-C Ext to 5-1-8, Ext 11-1-8 zone; vertical left a forces & MW DOL=1.60 pl Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 psf (flat roof	7-10; Vult=130mp bh; TCDL=3.0psf; closed; MWFRS (e erior (2) -1-0-8 to 1 erior (2) 5-1-8 to 8- cantilever left and ind right exposed; C/ (FRS for reactions late grip DOL=1.60 ned for wind loads i ads exposed to win d Industry Gable Er ialified building des ; 7-10; Pr=20.0 psf (.15); Pg=15.0 psf snow: Lum DOL=1	h (3-sec 3CDL=3 invelope -11-8, It 1-8, Int right ex c-C for r shown; n the pl d (norm nd Deta igner a (roof Ll (ground .15 Pla	sond gust) .0psf; h=25ft; b) exterior zor herior (1) 1-1 erior (1) 8-1-8 posed ; end hermes and Lumber ane of the tru al to the face ils as applical s per ANSI/TF .: Lum DOL= snow); Pf=1 ⁻¹ e DOL=1.15)	; Cat. ne 1-8 to ss), ble, PI 1. 1.15 1.5 ;						
FORCES	Max Grav 8=211 (LC 10=223 (L (lb) - Maximum Com Tension	C 31), 9=424 (LC 2), LC 30) hpression/Maximum	5)	Category II; I This truss ha load of 12.0 overhangs n	Exp B; Partially Exp as been designed for psf or 1.00 times fla on-concurrent with	o.; Ct=1 or great at roof l other li	.10 er of min roof oad of 11.5 ps ve loads.	live sf on						
TOP CHORD	1-2=0/46, 2-3=-78/7 4-5=-13/105, 5-6=-7 2-10=-200/106, 6-8=	5, 3-4=-17/105, 6/72, 6-7=0/39, =-188/95	7)	verifying Rai requirements Truss to be f	n Load = 5.0 (psf) of s specific to the use fully sheathed from	covers i e of this one fac	ain loading truss compor	nent.				TH CA	Route	
BOT CHORD WEBS	9-10=-164/211, 8-9= 4-9=-261/101, 2-11= 3-11=-83/70, 5-12=- 6-12=-242/216	=-84/171 =-233/211, 9-11=-246/22 83/71, 9-12=-256/229,	3, 8) 9)	braced again Gable studs This truss ha	nst lateral movemen spaced at 2-0-0 oc as been designed for ad nonconcurrent w	nt (i.e. o or a 10. vith any	liagonal web) 0 psf bottom other live loa	ds		4	A.	OFFESS	Marz	
NOTES 1) Unbalance this design	ed roof live loads have n.	been considered for	10)	* This truss h on the bottor 3-06-00 tall b	nas been designed m chord in all areas by 2-00-00 wide wil	for a liv where I fit betv	e load of 20.0 a rectangle veen the botto	Opsf om		11111		SEA 0363	L	

Scale = 1:51.5

chord and any other members. 11) Provide mechanical connection (by others) of truss to

bearing plate capable of withstanding 48 lb uplift at joint 10, 43 lb uplift at joint 8 and 157 lb uplift at joint 9. LOAD CASE(S) Standard

Community G١ 11111111 May 8,2025

818 Soundside Road Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BG01	Common Girder	1	2	Job Reference (optional)	173305318

 Run:
 9.13 S 8.83 Apr 24 2025 Print:
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Scale = 1:60.8

Plate Offsets (X, Y): [1:Edge,0-3-8], [8:0-5-0,0-4-12], [9:0-5-0,0-4-12]

•													-
Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.81	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15		BC	0.98	Vert(CT)	-0.11	8-9	>999	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	NO		WB	0.58	Horz(CT)	0.03	7	n/a	n/a		
BCLL	0.0*	Code	IRC201	5/TPI2014	Matrix-MS								
BCDL	5.0											Weight: 236 lb	FT = 20%
LUMBER			3)	Unbalanced	roof live loads have	been	considered fo	r	14) Use	Simpso	on Stro	ng-Tie HHUS26-	2 (14-10d Girder,
TOP CHORD	2x4 SP No.2		,	this design.					6-1	Od Truss	s) or eq	uivalent at 11-6-	6 from the left end to
BOT CHORD	2x6 SP No.2		4)	Wind: ASCE	7-10; Vult=130mph	n (3-sed	cond gust)		con	nect trus	, ss(es)	to back face of be	ottom chord.
WEBS	2x4 SP No.2 *Except	t* 8-4.9-2.10-2.7-4:2	x4	Vasd=103mp	h; TCDL=3.0psf; B	CDL=3	.0psf; h=25ft;	Cat.	15) Fill	all nail h	oles w	here hanger is in	contact with lumber.
	SP No.3			II; Exp B; End	closed; MWFRS (er	nvelope	e) exterior zor	ne;	LOAD	CASE(S)) Sta	ndard	
BRACING				cantilever left	t and right exposed	; end v	vertical left an	d	1) De	ad + Sn	low (ba	alanced): Lumber	Increase=1.15, Plate
TOP CHORD	Structural wood she	athing directly applie	d or	right exposed	l; Lumber DOL=1.6	60 plate	grip DOL=1.	60	ÍIne	crease=	1.15	,	,
	5-4-14 oc purlins, ex	cept end verticals.	u 0.						Ur	niform Lo	oads (l	b/ft)	
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc	; 5)	TCLL: ASCE	7-10; Pr=20.0 psf ((roof Ll	.: Lum DOL=	1.15		Vert: 1-3	3=-43,	3-5=-43, 5-6=-43	3, 7-10=-10
	bracing.			Plate DOL=1	.15); Pg=15.0 psf (ground	snow); Pf=11	1.5	Co	oncentra	ted Lo	ads (lb)	
REACTIONS	(size) 7=0-5-8, 1	0=0-5-8		psf (flat roof s	snow: Lum DOL=1.	15 Plat	e DOL=1.15)	;		Vert: 8=	-985 (B), 9=-757 (B), 1 [,]	1=-969 (B), 12=-968
	Max Horiz 10=-197 (I	LC 8)	0	Category II; E	Exp B; Partially Exp	.; Ct=1	.10			(B), 14=	-757 (B), 16=-1067 (B)	, 17=-1557 (B)
	Max Uplift 7=-1709 (I	LC 11), 10=-1731 (L	C 10) ⁶⁾	This truss ha	s been designed to	r great	er of min roof	live					
	Max Grav 7=4100 (L	C 2), 10=5091 (LC 2	2)	load of 12.0 p	ost or 1.00 times fia		Dad of 11.5 ps	ston					
FORCES	(lb) - Maximum Com	nression/Maximum	-/ 7)	overnangs no	on-concurrent with (other II	ve loads.						
TOROLO	Tension	pression/maximum	7)	vorifying Pair									
TOP CHORD	1-2=-1580/592 2-3=	-4794/1768		requirements	$c_{\text{specific to the use}}$	of this	trues compor	hont					
	3-4=-4949/2075. 4-5	=-1225/666, 5-6=0/3	39. a)		MT20 plates uples	s other	wise indicate	d					
	1-10=-1097/435, 5-7	=-955/521	() () ()	This truss ha	s heen designed fo	r a 10	nsf hottom	u.					
BOT CHORD	9-10=-1270/3567, 8-	9=-960/2666,	0)	chord live loa	id nonconcurrent w	ith anv	other live loa	ds.					
	7-8=-1418/3656		1()) * This truss h	as been designed f	for a liv	e load of 20.0)psf					117
WEBS	3-8=-1652/3354, 4-8	=-226/444,		on the botton	n chord in all areas	where	a rectangle					11111 00	D''''
	3-9=-936/2956, 2-9=	-183/353,		3-06-00 tall b	y 2-00-00 wide will	fit betv	veen the botto	om				TH UA	ROUL
	2-10=-3466/1188, 4-	7=-4011/1447		chord and an	y other members, v	with BC	DL = 5.0psf.				15	A	Dalation
NOTES			1.	I) Provide mech	nanical connection	(by oth	ers) of truss t	0			12		No 201
1) 2-ply truss	s to be connected toget	her with 10d		bearing plate	capable of withsta	nding 1	731 lb uplift a	at			~	100	1.1.1.1
(0.131"x3	") nails as follows:			joint 10 and 1	709 lb uplift at join	t 7.				-		:4	1 : 2
Top chore	is connected as follows	: 2x4 - 1 row at 0-9-0	0 12	Use Simpsor	N Strong-Tie HUS26	6 (14-1	0d Girder, 4-1	0d		-		SEA	1 1 2
OC.				Truss) or equ	ivalent spaced at 2	2-3-8 00	c max. starting	gat		- 8		000	
Bottom ch	nords connected as follo	ows: 2x6 - 2 rows		0-11-12 from	the left end to 3-3-	4 to co	nnect truss(e	s) to				0363	22
staggered	at 0-6-0 oc.			back face of	bottom chord.					-	- Q	t	1 5
Web conr	nected as follows: 2x4 -	1 row at 0-9-0 oc.	1:	3) Use Simpsor	Strong-Tie LUS26	(4-100	Girder, 4-10	d			1	·	A 1. 5
2) All loads a	are considered equally	applied to all plies,		russ) or equ	ivalent spaced at 2	-U-U 00	: max. starting	yat			2.0	A SNOW	EEM AN
except if r	noted as front (F) or bac	CK (B) face in the LO	AD	back face of	bottom chord	to con	neor truss(es)	10			1	SI GIN	the ct is
CASE(S)	section. Ply to ply conn	ections have been		DACK TACE OF							1	A C	IL BEIN
	o distribute only loads i	noted as (F) of (B),										1111. 6	in in its
uniess off	iei wise illuicateu.												LT

May 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BG02	Half Hip Girder	1	2	Job Reference (optional)	173305319

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:25 Page: 1 ID:9w_fUwYv2PYxRRnv0i_321zKayX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





	3-9-0	7-1-7	12-6-6	17-11-5	23-4-5	28-11-0
0	3-9-0	3-4-7	5-4-15	5-4-15	5-4-15	5-6-11
Scale = 1:59.5						

Plate Offsets (X, Y): [4:0-3-0,0-2-0]

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 16.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC201	5/TPI2014	CSI TC BC WB Matrix-MS	0.26 0.41 0.27	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.12 -0.13 0.03	(loc) 12-14 12-14 10	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 372 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS	2x4 SP No.2 2x6 SP No.2 2x4 SP No.3 *Excep 14-4,14-6,11-6,11-9; Left: 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exc 2-0-0 oc purlins, exc 2-0-0 oc purlins (6-0 Rigid ceiling directly bracing. (size) 2=0-5-8,1 Max Horiz 2=159 (LC Max Uplift 2=-902 (L Max Grav 2=1514 (L (Ib) - Maximum Com Tension 1-2=0/30, 2-3=-2523 4-5=-2841/1928,5-6 6-8=-147/V2196,14 1-15=-161/(2257- 11-12=-193)2728,15 3-312405,4-14 5-14=-432/233,6-4 4-6-12=-184/284,6-11 8-11=-441/240,9-14 0-36	t* 2x4 SP No.2 athing directly applied cept end verticals, an -0 max.): 4-9. applied or 10-0-0 oc 10= Mechanical C 12), 10=-1102 (LC C 2), 10=-1102 (LC C 2), 10=-1573 (LC 4 pression/Maximum /1552, 3-4=-2577/17. =-2841/1998, =-1841/1272, 5-16=-14777/2196, 12-10-1953/2728, http://doi.org/ -1139/813, =-1637/2198 3222 NEEFER	1) d or 2) ad 3) 9) 4) 11) 22, 5) 6) 7) 8) 9) 10	2-ply truss to (0.131"x3") n Top chords c oc. Bottom chord staggered at Web connect All loads are except if notte CASE(S) sec provided to d unless otherw Unbalanced 1 this design. Wind: ASCE Vasd=103mp II; Exp B; Enc cantilever leff right exposed TCLL: ASCE Plate DOL=1 psf (flat roof s Category II; E Unbalanced s design. This truss hai load of 12.0 p overhangs no Building Desi verifying Raii requirements Provide adeq	be connected tog ails as follows: onnected as follows: onnected as follow is connected as follow as follows: 2x4 considered equally ed as front (F) or br titon. Ply to ply cor- istribute only loads vise indicated. roof live loads have 7-10; Vult=130mp bh; TCDL=3.0psf; E closed; MWFRS (et and right exposed i; Lumber DOL=1.1 7-10; Pr=20.0 psf anow: Lum DOL=1 sp B; Partially Exy snow loads have b s been designed for osf or 1.00 times fit on-concurrent with igner/Project engin h Load = 5.0 (psf) of specific to the use juate drainage to p s been designed for d nonconcurrent with	ether wi vs: 2x4 - llows: 2: - 1 row / applied ack (B) for innection is noted a e been of h (3-sec 3CDL=3 inveloped corr greated at roof LL (ground .15 Plat bo; Ct=1 een corr or greated at roof ki or greated at roof r bis prevent v or a 10.0 vith any	th 10d 1 row at 0-9- x6 - 2 rows at 0-9-0 oc. d to all plies, iace in the LC s have been as (F) or (B), considered for cond gust) .0psf; h=25ft; e) exterior zon rertical left an grip DOL=1.f snow); Pf=16 c DOL=1.15); .10, Lu=50-0- usidered for the er of min roof bad of 11.5 ps re loadis, bonsible for ain loading truss comport water ponding 0 psf bottom other live load	-0 DAD r ; Cat. ne; d 60 1.15 5.5 ; -0 nis live sf on ment. 3.	 11) * Th on t 3-00 cho 12) Ref 13) Problem 13) Problem 14) Gra or tti bott 15) "NA (0.1 16) Har prov lb d des resp LOAD (1) De Ind Ur 	his truss he botto 5-00 tall rd and a er to girc vide mer ting plat t 10 and phical p ne orient JLED" ir 48"x3.2 nger(s) o vided su own and ign/sele oonsibilit CASE(S) ad + Sn crease=	has be m cho by 2-0 ny oth der(s) 1 chanic e capa 902 lk urlin re d. dicate f s") toe r othei 1 229 ll ction o y of ot l Stai 0.15 bads (II	een designed for rd in all areas wh 10-00 wide will fit ier members. for truss to truss al connection (by able of withstand o uplift at joint 2. presentation dor of the purlin alon es 3-10d (0.148"x -nails per NDS g r connection dev t to support conce b up at 7-3-8 on of such connection thers. ndard alanced): Lumbe b/ft)	a live load of 20.0psf iere a rectangle between the bottom connections. rothers) of truss to ing 1102 lb uplift at as not depict the size g the top and/or 3") or 3-12d uidlines. ice(s) shall be entrated load(s) 263 bottom chord. The n device(s) is the r Increase=1.15, Plate	÷
	11111	uuuu .										M	av 8.2025	

May 8,2025

Continued on page 2 Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev, 1/2/2023 BEFORE USE. WARNING Design valid for use only with MTek connectors. This design is based only upon parameters and property incorporate this design is based only upon parameters and property incorporate this design into the overall building designer must verify the applicability of design parameters and property 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BG02	Half Hip Girder	1	2	Job Reference (optional)	173305319

 Run:
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 24 2025 MiTek Industries, Inc. Wed May 07 10:44:25
 Page:
 2

 ID:9w_fUwYv2PYxRRnv0i_321zKayX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f
 Page:
 2

Vert: 1-4=-43, 4-9=-53, 10-17=-10

Concentrated Loads (lb)

Vert: 13=-47 (B), 15=-211 (B), 12=-47 (B), 32=-47 (B), 33=-47 (B), 34=-47 (B), 35=-47 (B), 36=-47 (B), 37=-47 (B), 38=-47 (B), 39=-47 (B), 40=-49 (B)

Lies Rin



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 **ANSUTP11 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BG03	Roof Special Girder	1	2	Job Reference (optional)	173305320

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:25 ID:1HDN?9ZqHUFpIDj5FPLg9QzIwz0-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale =	1:33
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Plate Offsets (X, Y):	[3:0-8-14,0-2-5], [3:Edge,0-0-4]	
-----------------------	----------------------------------	--

3)

		1,[
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC201	5/TPI2014	CSI TC BC WB Matrix-MP	0.15 0.13 0.03	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 74 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD WEBS 1) 2-ply truss Top chorc follows: 2: Bottom cf follows: 2:	2x4 SP No.2 2x6 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 3=8-0-0,4 Max Horiz 5=-109 (L Max Uplift 3=-51 (LC (LC 2) Max Grav 3=169 (LC (LC 9) (lb) - Maximum Com Tension 1-5=-10/14, 1-2=-58, 4-5=0/89, 3-4=0/95 2-4=-272/161 s to be connected toget is connected with 10d (x4 - 1 row at 0-9-0 oc. hords connected with 10d (x4 - 1 row at 0-9-0 oc. hords connected with 10d (x4 - 1 row staggered a are considered equally noted as front (F) or bas section. Ply to ply com to distribute only loads herwise indicated. ed roof live loads have n.	athing directly applie cept end verticals. applied or 10-0-0 oc 4=8-0-0, 5=8-0-0 C 8) S 9), 4=-196 (LC 9), 5 C 2), 4=448 (LC 2), 5 D 22), 4=468 (LC 2), 5 D 22), 5 D 22), 4=468 (LC 2), 5 D 22), 5 D 22	4) ed or 5) 5 6) 568 7) 568 8) 9) 10 11 12 as 13 AD 14 LC	 Wind: ASCE Vasd=103mj II; Exp B; En cantilever lef right expose Truss desigr or consult qu TCLL: ASCE Plate DOL=1 psf (flat roof Category II; Unbalanced design. Building Des verifying Rai requirements Gable studs This truss ha chord live loa * This truss for and the bottor 3-06-00 tall ti chord and ar Provide mec bearing plate 5, 51 lb uplifi Beveled plat surface with 	7-10; Vult=130m oh; TCDL=3.0psf; closed; MWFRS i t and right exposed d; Lumber DOL=1 led for wind loads ds exposed to wid d Industry Gable I halified building de 7-10; Pr=20.0 ps .15); Pg=15.0 ps snow: Lum DOL= Exp B; Partially E snow loads have igner/Project eng n Load = 5.0 (psf, s specific to the u es continuous boi spaced at 2-00 to is been designed ad nonconcurrent hanical connectic e capable of withs at joint 3 and 19 e or shim required truss chord at join Standard	ph (3-sec BCDL=3 (envelope ed; end v 1.60 plate ind (norm End Deta End	cond gust) i.Opsf; h=25ft; a) exterior zor vertical left an grip DOL=1.1 ane of the tru- alt to the face is as applical s per ANSI/TF .: Lum DOL=: snow); Pf=11 te DOL=1.15) .10 nsidered for th ponsible for ain loading truss compord bearing. D psf bottom other live loa te load of 20.0 a rectangle veen the bottot ers) of truss t 8 lb uplift at ji at joint 4. de full bearing	c Cat. he; d 60 ss), ble, PI 1. 1.15 1.5 ; his hent. ds. Dpsf o o oint		An and the second s		SEA 0363	L L L L BER	





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Job	Truss Truss Type Qty		Qty	Ply	1037 Serenity				
P02236-24939	BJ01	Jack-Partial	1	1	Job Reference (optional)	173305321			

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:25 Page: 1 ID:9eSEw6KF2BPLuq_eWdB4sRzKayo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:35.7

Plate Offsets (X, Y): [2:0-3-8,Edge]

								-		-				
Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15		тс	0.06	Vert(LL)	-0.01	6-9	>999	240	MT20	244/190	
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15		BC	0.09	Vert(CT)	-0.01	6-9	>999	180			
TCDL	10.0	Rep Stress Incr	YES		WB	0.05	Horz(CT)	0.00	2	n/a	n/a			
BCLL	0.0*	Code	IRC2015/	/TPI2014	Matrix-MP									
BCDL	5.0											Weight: 21 lb	FT = 20%	
LUMBER			4)	This truss ha	s been designed fo	r great	er of min roo	f live						
TOP CHORD	2x4 SP No.2			load of 12.0 p	osf or 1.00 times fla	t roof le	oad of 11.5 p	sf on						
BOT CHORD	2x4 SP No.2			overhangs no	on-concurrent with	other liv	/e loads.							
WEBS	2x4 SP No.3		5)	Building Desi	gner/Project engine	eer res	ponsible for							
SLIDER	Left 2x4 SP No.3 1	-6-0		verifying Rair	n Load = 5.0 (psf) c	overs r	ain loading							
BRACING				requirements	specific to the use	of this	truss compo	nent.						
TOP CHORD	Structural wood shea	athing directly applied	dor ⁶⁾	This truss ha	s been designed to	r a 10.0) pst bottom							
	4-1-13 oc purlins.		7)	* This truce h	d nonconcurrent w	ith any	other live loa	ads. Onof						
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc	()	on the botton	n chord in all areas	where	a rectangle	opsi						
REACTIONS	(size) 2-0-5-8 5	- Mechanical 6-		3-06-00 tall b	y 2-00-00 wide will	fit betv	veen the bott	om						
REACTIONS	(Size) Z=0-5-0, S Mechanica	al		chord and an	y other members.									
	Max Horiz 2=93 (LC	16)	8)	Refer to girde	er(s) for truss to tru	iss con	nections.							
	Max Uplift 2=-54 (LC	16), 5=-38 (LC 16),	9)	9) Provide mechanical connection (by others) of truss to										
	6=-40 (LC	16)		E E4 lb uplift	capable of withsta	naing a	tioint 6	joint						
	Max Grav 2=202 (LC	2), 5=54 (LC 2), 6=	37		at joint 2 and 40 lb	upint a	it joint 6.							
	(LC 7)		LU	AD CASE(S)	Stanuaru									
FORCES	(lb) - Maximum Com	pression/Maximum												
	Tension													
TOP CHORD	1-2=0/23, 2-4=-161/4	49, 4-5=-38/19												
BOT CHORD	2-6=-131/112												U11.	
WEBS	4-6=-131/153											White CA	Dall	
NOTES											1	athon	10/11/	
1) Wind: AS	CE 7-10; Vult=130mph	(3-second gust)								/	SI	044585	12 Vilan	
Vasd=103	3mph; TCDL=3.0psf; B0	CDL=3.0psf; h=25ft; (Cat.								ŨŔ		New /	
II; Exp B;	Enclosed; MWFRS (en	velope) exterior zone										:0	K: 5	
and C-C E	xterior (2) -0-10-8 to 1	-11-6, Interior (1) 1-1	1-6							-				
to 4-1-1 Z	one; cantilever left and	right exposed ; end										SEA	L : =	
forces & M	MVERS for reactions of	hown: Lumber								Ξ.	- 1	0363	22 E	
DOI = 1.60) plate grip DOI =1.60	iowii, Lumber								-		. 0505	÷ E	
2) TCLL: AS	CE 7-10: Pr=20.0 psf (i	roof LL: Lum DOL=1.	15							-		N.	1 2	
Plate DOL	_=1.15): Pa=15.0 psf (a	round snow): Pf=11.	5								2.	N. E.	Ricks	
psf (flat ro	of snow: Lum DOL=1.1	5 Plate DOL=1.15);									31	GIN	EF AN	
Category	II; Exp B; Partially Exp.	; Ct=1.10									1	C	IL BEIN	
3) Unbalance	ed snow loads have be	en considered for thi	3									11, A. G	IL III	
design.												<i></i>	UITE.	

May 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity				
P02236-24939	BJ02	Jack-Open	1	1	Job Reference (optional)	173305322			

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:25 Page: 1 ID:WLcpJ8a1j7vIJLL8oALOtrzKaj_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:27.7

Plate Offsets (X, Y): [2:0-1-8,0-0-5]

Loading	(psf)	Spacing	2-0-0		CSI	0.06	DEFL	in 0.00	(loc)	l/defl	L/d	PLATES	GRIP	
Spow (Pf/Pg)	20.0		1.15		BC	0.00	Vert(CT)	0.00	5-0 5-8	~000 >999	240 180	IVI I 20	244/190	
	10.0	Ren Stress Incr	YES		WB	0.00	Horz(CT)	0.00	J-0 4	>333 n/a	n/a			
BCU	0.0*	Code	IRC2015/	TPI2014	Matrix-MP	0.00	11012(01)	0.00	-	Π/α	n/a			
BCDL	5.0	0000	11(02010/	11 12014								Weight: 12 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 Left 2x4 SP No.3 1 Structural wood shea 2-5-13 oc purlins. Rigid ceiling directly bracing. (size) 2=0-5-8, 4 Mechanic Max Horiz 2=61 (LC Max Uplift 2=-41 (LC (LC 16) Max Grav 2=147 (LC (LC 7)	I-6-0 athing directly applie applied or 10-0-0 oc I= Mechanical, 5= al 16) 16), 4=-42 (LC 16), 2 2), 4=56 (LC 2), 5=	5) 6) 7) 8) 9) 5=-6 22	Building Desi verifying Rair requirements This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an Refer to girde Provide mecl bearing plate 4, 41 lb uplift AD CASE(S)	gner/Project engine l Load = 5.0 (psf) c specific to the use s been designed fo d nonconcurrent w as been designed fo n chord in all areas y 2-00-00 wide will y 2-00-00 wide will y other members. er(s) for truss to tru- nanical connection capable of withsta at joint 2 and 6 lb to Standard	eer responent of this of this r a 10.0 ith any for a liv where fit betwork the second (by oth nding 4 uplift at the second of th	consible for ain loading truss compor o psf bottom other live load e load of 20.0 a rectangle veen the botto nections. ers) of truss tr 2 lb uplift at jo joint 5.	nent. ds. ipsf om oint				weight. 12 ib	1 1 - 2070	
FORCES	(lb) - Maximum Com	pression/Maximum												
	1 ension 1-2-0/23 2-444/20	n												
BOT CHORD	2-5=-61/39	5												
NOTES	20 0000													
 Wind: ASC Vasd=103 II; Exp B; and C-C E exposed; members Lumber D TCLL: AS Plate DOL psf (flat ro Category Unbalance design. This truss load of 12 overhangs 	CE 7-10; Vult=130mph Bmph; TCDL=3.0psf; B0 Enclosed; MWFRS (en Exterior (2) zone; cantil end vertical left and rig and forces & MWFRS OL=1.60 plate grip DO CE 7-10; Pr=20.0 psf (=1.15); Pg=15.0 psf (g iof snow: Lum DOL=1.7 II; Exp B; Partially Exp. ed snow loads have be has been designed for .0 psf or 1.00 times flat s non-concurrent with c	(3-second gust) CDL=3.0psf; h=25ft; velope) exterior zone ever left and right ght exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1 round snow); Pf=11. 15 Plate DOL=1.15); ; Ct=1.10 en considered for this greater of min roof I roof load of 11.5 ps ther live loads.	Cat. e .15 5 s ive f on							Contraction of the second seco		SEA 0363	L 22 EEER HLBER	and an

TRENGINEERING BY A MITCH Affiliate

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity				
P02236-24939	BJ03	Jack-Open	1	1	Job Reference (optional)	173305323			

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:26 Page: 1 ID:9eSEw6KF2BPLuq_eWdB4sRzKayo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.8

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	11	(psf) 20.0 .5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	15/TPI2014	CSI TC BC WB Matrix-MR	0.14 0.07 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 9 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No 2x4 SP No 2x4 SP No Structural 1-10-10 oc Rigid ceilir bracing. (size) Max Horiz Max Uplift Max Grav	.2 .2 .3 wood she purlins, g directly 3= Mecha 5=0-5-8 5=73 (LC 3=-53 (LC (LC 14) 3=48 (LC (LC 2)	athing directly applie except end verticals applied or 10-0-0 or nical, 4= Mechanica 14) 214), 4=-14 (LC 14), 26), 4=24 (LC 5), 5=	5 ed or 7 c 2 al, 5 , 5=-7 L =140	 Building Desverifying Rairequirements This truss hachord live loc * This truss I on the botton 3-06-00 tall 1 chord and at Refer to gird Provide mec bearing plate 14 lb uplift at OAD CASE(S) 	igner/Project engin n Load = 5.0 (psf) s specific to the us is been designed f ad nonconcurrent t has been designed n chord in all area by 2-00-00 wide wi hy other members. er(s) for truss to t hanical connection capable of withst joint 4 and 53 lb to Standard	neer res covers r e of this for a 10. with any f for a liv s where ill fit betw russ con n (by oth anding 7 uplift at ju	ponsible for ain loading truss compoo 0 psf bottom other live load e load of 20.1 a rectangle veen the botto nections. ers) of truss i lb uplift at jo point 3.	nent. Ids. Dpsf om ro int 5,					
FORCES	(lb) - Maxir Tension		pression/Maximum											
BOT CHORD	2-5=-129/6 4-5-0/0	66, 1-2=0/3	39, 2-3=-54/42											
NOTES	+ 0=0/0													
 Unbalanc this desig Wind: AS Vasd=103 II; Exp B; and C-C F 	ed roof live lo n. CE 7-10; Vult 3mph; TCDL= Enclosed; M Exterior (2) zc	ads have =130mph 3.0psf; B0 WFRS (en one; cantil	been considered for (3-second gust) CDL=3.0psf; h=25ft; avelope) exterior zor ever left and right	r ; Cat. ne								ALL A	OR EESS	ROLIN

Lumber DOL=1.60 plate grip DOL=1.60 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown;

4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

818 Soundside Road Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BJ04	Jack-Open	1	1	Job Reference (optional)	173305324

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:26 Page: 1 ID:9eSEw6KF2BPLuq_eWdB4sRzKayo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.5

Loading TCLL (roof) Snow (Pf/Pg) TCDL	(psf) 20.0 11.5/15.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES		CSI TC BC WB	0.23 0.15 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.01 -0.01 -0.01	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190
BCLL BCDL	0.0* 5.0	Code	IRC2015/	/TPI2014	Matrix-MR				-			Weight: 13 lb	FT = 20%
LUMBER TOP CHORD 2x4 SP No.2 TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3 BRACING TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals. BOT CHORD Structural wood sheathing directly applied or 3-10 oc purlins, except end verticals. BOT CHORD Structural wood sheathing directly applied or bracing. REACTIONS (size) 3 = Mechanical, 4= Mechanical, 5=0-5-8 Max Horiz 5 Methanical, 4= Mechanical, 5(LC 14) Max Grav 3=87 (LC 26), 4=41 (LC 14), 5=-5 (LC 2) FORCES (b) - Maximum Compression/Maximum Tension													
FORCES	(lb) - Maximum Com Tension	pression/Maximum											
TOP CHORD	2-5=-162/73, 1-2=0/3	39, 2-3=-85/66											
NOTES	4 3=0/0												
 NOTES Unbalance this design Wind: ASC Vasd=103 II; Exp B; I and C-C E 3-0-4 zone vertical lef forces & N DOL=1.6C TCLL: AS Plate DOL psf (flat ro Category This truss 	ed roof live loads have n. CE 7-10; Vult=130mph imph; TCDL=3.0psf; BG Enclosed; MWFRS (en Exterior (2) -0-10-8 to 2 e; cantilever left and rig it and right exposed;C- IWFRS for reactions si plate grip DOL=1.60 CE 7-10; Pr=20.0 psf (t =1.15); Pg=15.0 psf (g of snow: Lum DOL=1.^ II; Exp B; Partially Exp. has been designed for 0 ps for 1 00 times flat	been considered for (3-second gust) CDL=3.0psf; h=25ft; velope) exterior zon -1-8, Interior (1) 2-1- fht exposed ; end C for members and hown; Lumber roof LL: Lum DOL=1 fround snow); Pf=11 15 Plate DOL=1.15); ; Ct=1.10 greater of min roof troof lad of 11 5 no	e 8 to .15 .5 live f on							Walling		SEA 0363	ROLUMINIUM L 22 BERLIN

- DOL=1.60 plate grip DOL=1.60 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- This truss has been designed for greater of min roof live 4) load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

May 8,2025

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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Schut Information, purplication component component durate propagate component component to the prevent collapse with possible for the Studyer Building Component Advance and Adva and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BJ05	Jack-Open	11	1	Job Reference (optional)	173305325

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:26 Page: 1 ID:dr0c7SLtpVXCW_Zq4LiJOfzKayn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.3

L oading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	5/TPI2014	CSI TC BC WB Matrix-MP	0.09 0.13 0.04	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.00	(loc) 6-7 6-7 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 24 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 3-11-8 oc purlins, e: Rigid ceiling directly bracing. (size) 4= Mecha 7=0-5-8 Max Horiz 7=138 (LC (LC 14) Max Grav 4=58 (LC (LC 2)	athing directly applied xcept end verticals. applied or 10-0-0 oc inical, 6= Mechanical C 14) : 14), 6=-73 (LC 14), 26), 6=90 (LC 26), 7	4) 5) d or 6) 7) , 7=-4 8) 9) =200	This truss ha load of 12.0 µ overhangs n Building Des verifying Raii requirements This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar Refer to girdd Provide mec bearing plate 4, 73 lb uplift	s been designed for osf or 1.00 times fla on-concurrent with igner/Project engin in Load = 5.0 (psf) of s specific to the uses s been designed for di nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members. er(s) for truss to tru- hanical connection capable of withsta at joint 6 and 4 lb	or greate at roof lo other live eer resp covers r. e of this or a 10.0 /ith any for a live s where l fit betw uss com (by oth unding 5 uplift at	er of min roo pad of 11.5 p re loads. ponsible for ain loading truss compo 0 psf bottom other live loa e load of 20. a rectangle reen the bott nections. ers) of truss 0 lb uplift at joint 7.	f live sef on onent. ads. Opsf to joint						
FORCES	(lb) - Maximum Com Tension	pression/Maximum	L	DAD CASE(S)	Standard									
TOP CHORD	2-7=-152/170, 1-2=0 3-4=-56/39	/39, 2-3=-95/112,												
3OT CHORD WEBS	6-7=-90/92, 5-6=0/0 3-6=-138/135, 3-7=-	150/85											11.	
 VOTES I) Unbalance this design this design Wind: ASC Vasd=103 II; Exp B; I and C-CE to 3-10-12 vertical lef forces & M DOL=1.60 TCLL: ASC Plate DOL psf (flat ro Category I 	ed roof live loads have h. CE 7-10; Vult=130mph mph; TCDL=3.0psf; BG Enclosed; MWFRS (en ixterior (2) -0-10-8 to 1 zone; cantilever left ai t and right exposed;C- 1WFRS for reactions sl plate grip DOL=1.60 CE 7-10; Pr=20.0 psf ((=1.15); Pg=15.0 psf (g of snow: Lum DOL=1.^ I; Exp B; Partially Exp.	been considered for (3-second gust) CDL=3.0psf; h=25ft; (velope) exterior zone -10-8, Interior (1) 1-1 nd right exposed; en C for members and hown; Lumber roof LL: Lum DOL=1. roond snow); Pf=11. 15 Plate DOL=1.15); ; Ct=1.10	Cat. 9 0-8 dd .15 5							Manna		SEA 0363	ER FR	Manunan

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Engineering by AMITek Affiliate 818 Soundside Road Edenton, NC 27932

May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BSE01	Common Structural Gable	1	1	Job Reference (optional)	173305326

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:26 Page: 1 ID:7dPmHzhMP3kZeyXfZ0GiAYzIxEx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Plate Offsets (X, Y): [2:0-3-8,Edge], [10:0-3-8,Edge]

Scale = 1:62.8

Loading TCLL (roof) Snow (Pf/Pg) TCDL	(psf) 20.0 11.5/15.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES		CSI TC BC WB	0.85 0.35 0.44	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.09 -0.14 0.01	(loc) 12-13 12-13 12	l/defl >999 >845 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190
BCLL BCDL	0.0* 5.0	Code	IRC201	5/TPI2014	Matrix-MS							Weight: 119 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD JOINTS REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 *Excep No.3 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exx Rigid ceiling directly bracing. 1 Brace at Jt(s): 16, 17, 19, 20 (size) 12=0-5-8, Max Horiz 15=-207 (Max Uplift 12=-175 (Max Grav 12=581 (L 15=567 (L (lb) - Maximum Com Tension	t* 15-2,12-10:2x4 SP athing directly applied cept end verticals. applied or 9-8-9 oc 14=0-3-8, 15=5-10-0 LC 12) LC 15), 15=-178 (LC LC 2), 14=89 (LC 5), .C 2) pression/Maximum	2) d or 3) (14) 5) 6)	Wind: ASCE Vasd=103mg II; Exp B; En and C-C Exte 7-9-12, Exter 10-9-12 to 16 exposed ; en members an Lumber DOL Truss design only. For stu see Standarc or consult qu TCLL: ASCE Plate DOL=1 psf (flat roof : Category II; E This truss ha load of 12.0 p overhangs nc Building Des	7-10; Vult=130mph oh; TCDL=3.0psf; B closed; MWFRS (er prior (2) -0-10-8 to 2 ior (2) 7-9-12 to 10- ior (2) 7-9-12 to 10- d vertical left and rid d vertical left and rid d forces & MWFRS =1.60 plate grip DC ed for wind loads in ds exposed to wind l Industry Gable En alified building desi 7-10; Pr=20.0 psf (5-00; Pg=15.0 psf (5-00; Pg=	a (3-sec CDL=3 nvelope 2-1-8, li -9-12, l er left a ght exp for rea DL=1.60 a the pl d (norm d Deta gner as (roof LL ground 15 Plat s.; Ct=1 r great t roof lo other lis eer res	cond gust) .0.psf; h=25ft; .9) exterior zon tterior (1) 2-1. nterior (1) 2-1. nterior (1) and right boosed;C-C for ctions shown) ane of the trus al to the face) is as applicat s per ANSI/TF .: Lum DOL=7 snow); Pf=11 .10 er of min roof pad of 11.5 ps /e loads. consible for	Cat. ne -8 to ; ss), oble, PI 1. 1.15 1.5 ; live sf on	13) Pro bea 15 a LOAD (vide meo ring plat and 175 CASE(S)	chanic e capa Ib uplif	al connection (by ble of withstandi it at joint 12. ndard	others) of truss to ng 178 lb uplift at joint
TOP CHORD	1-2=0/39, 2-3=-527/ 4-5=-412/186, 5-6=- 7-8=-411/188, 8-9=- 10-11=0/39, 2-15=-5	148, 3-4=-416/139, 368/195, 6-7=-369/19 416/142, 9-10=-526/ 41/241, 10-12=-539/	95, 149, 7) 241 8)	verifying Rain requirements All plates are Truss to be fi	n Load = 5.0 (psf) c specific to the use 2x4 () MT20 unle ully sheathed from c	overs r of this ess oth one fac	ain loading truss compor erwise indicat e or securely	nent. ed.			- II	ATH CA	ROLLAND
WEBS NOTES 1) Unbalance this design	12-13=-361/494, 13- 12-13=-266/425 6-13=-75/195, 2-18= 17-18=-199/330, 16- 13-16=-213/345, 13- 19-20=-234/338, 20- 10-21=-231/335, 5-1 4-17=-132/104, 3-18 8-20=-132/104, 9-21 ed roof live loads have n.	-202/332, 17=-207/336, 19=-241/348, 21=-228/332, 6=-31/40, i=-56/68, 7-19=-34/4' =-57/70 been considered for	9) 10 11 1, 12	braced again Gable studs :) This truss ha chord live loa) * This truss h on the bottom 3-06-00 tall b chord and ar) Bearing at jo value using <i>I</i> designer sho	st lateral movemen spaced at 2-0-0 oc. s been designed fo id nonconcurrent wi as been designed f n chord in all areas y 2-00-00 wide will y other members. int(s) 15, 12 conside NSI/TPI 1 angle to uld verify capacity of	r a 10.0 ith any for a liv where fit betv ers par grain f of bear	agonal web).) psf bottom other live load e load of 20.0 a rectangle veen the botto allel to grain ormula. Build ng surface.	ds.)psf om ding		Junin 1111		SEA 0363	L 22 ILBERTUUT

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818 Soundside Road Edenton, NC 27932

May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BV01	Valley	1	1	Job Reference (optional)	173305327

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:26 Page: 1 ID:dr0c7SLtpVXCW_Zq4LiJOfzKayn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

(loc)

in

l/defl



10-6-4

DEFL

<u> </u>		
Scale	=	1:47.7

Loading

TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	1	1.5/15.0	Lumber DOL	1.15		BC	0.08	Vert(TL)	n/a	-	n/a	999	
TCDL		10.0	Rep Stress Incr	YES		WB	0.13	Horiz(TL)	0.00	5	n/a	n/a	
BCLL		0.0*	Code	IRC20	015/TPI2014	Matrix-MS							
BCDL		5.0		_									Weight: 50 lb
LUMBER					 Truss desig 	ned for wind load	ds in the p	lane of the tru	ISS				
TOP CHORD	2x4 SP N	0.2			only. For s	tuds exposed to v	wind (norm	hal to the face	e),				
BOT CHORD	2x4 SP N	0.2			see Standa	rd Industry Gable	End Deta	ails as applica	ble,				
WEBS	2x4 SP N	0.3			or consult of	ualified building of	designer a	s per ANSI/I	PI 1.				
OTHERS	2x4 SP N	0.3			 ICLL: ASC 	E 7-10; Pr=20.0 p	ost (root L	L: Lum DOL=	1.15				
BRACING					Plate DOL=	=1.15); Pg=15.0 p	sr (ground	snow); Pt=1	1.5				
TOP CHORD	Structura	I wood shea	athing directly applie	d or	psr (flat roo	T SNOW: LUM DOL	=1.15 Pla	te DOL=1.15);				
	6-0-0 oc	ourlins, exe	cept end verticals.		5) Building Do	, Exp B, Faitially	Exp., Ol=	noncible for					
BOT CHORD	Rigid ceil bracing.	ing directly	applied or 10-0-0 oc	;	verifying Ra	ain Load = 5.0 (ps	sf) covers	rain loading					
REACTIONS	(size)	1=10-6-4,	5=10-6-4, 6=10-6-4	,	requiremen	ts specific to the	use of this	truss compo	nent.				
		7=10-6-4			 Gable required Coble study 	res continuous b		ro bearing.					
	Max Horiz	1=172 (LC	C 11)		 Gable Studie This trues h 	s spaceu al 4-0-0	d for a 10	0 pcf bottom					
	Max Uplift	1=-69 (LC	: 10), 5=-86 (LC 15),		chord live l	ad nonconcurrer	nt with any	other live los	aha				
		6=-65 (LC	; 11), 7=-213 (LC 14)	 9) * This truss 	has been design	ed for a liv	e load of 20	Opsf				
	Max Grav	1=137 (LC	C 26), 5=160 (LC 26)),	on the botto	om chord in all are	eas where	a rectangle	000.				
		6=269 (LC	25), 7=316 (LC 25))	3-06-00 tall	by 2-00-00 wide	will fit betw	ween the bott	om				
FORCES	(lb) - Max	imum Com	pression/Maximum		chord and a	any other membe	rs.						
TODOLODD	Lension			10	10) Provide me	chanical connect	ion (by oth	ners) of truss	to				
TOP CHORD	1-2=-181/	(164, 2-3=-)	172/154, 3-4=-149/1	46,	bearing pla	te capable of with	nstanding 8	B6 lb uplift at	joint				
	4-5=-100/	17 6 7 - 20	0/47 5 6 20/47		5, 69 lb upl	ft at joint 1, 65 lb	uplift at jo	int 6 and 213	lb				
WEBS	3-6232	17, 0-7=-3	87/221		uplift at join	t 7.							
WEBS	5-0252/	51, 2-7 20	07/201		LOAD CASE(S) Standard							11''''' C
NULES			h										"aTH U
i) Unbalance	ed toot live i	oaus nave	been considered for									~	01

CSI

this design.

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 2-11-9, Interior (1) 2-11-9 to 6-11-9, Exterior (2) 6-11-9 to 9-11-9, Interior (1) 9-11-9 to 10-4-13 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

(psf)

Spacing

2-0-0



L/d PLATES

GRIP

244/190

FT = 20%

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BV02	Valley	1	1	Job Reference (optional)	173305328

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:27 Page: 1 ID:51a_LoMVaof38780e2DYxszKaym-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.5

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL LUMBER	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015/TF 4) T(PI2014 CLL: ASCE	CSI TC BC WB Matrix-MS 7-10; Pr=20.0 psf	0.36 0.40 0.13 (roof LL	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.01	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 40 lb	GRIP 244/190 FT = 20%	
TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood shee 6-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 1=9-3-14, Max Horiz 1=134 (LC Max Uplift 1=-62 (LC 5=-140 (LI Max Grav 1=138 (LC 5=-5457 (LC	athing directly applied cept end verticals. applied or 6-0-0 oc 4=9-3-14, 5=9-3-14 2 11) 2 15), 4=-80 (LC 10), C 14) 2 26), 4=116 (LC 26), 2 25)	PI ps Ci 5) Bi ve for re 6) G 7) G 8) Tr cr 9) * or 3- cr 10) Pi	late DOL=1 sf (flat roof s ategory II; B ategory	15); Pg=15.0 psf snow: Lum DOL=1 Exp B; Partially Exp gner/Project engin 1 Load = 5.0 (psf) of specific to the use scontinuous bott spaced at 4-0-0 oc s been designed find nonconcurrent v as been designed n chord in all areas y 2-00-00 wide wil y other members.	(ground .15 Plat p.; Ct=1 heer resp covers r e of this om chor c. or a 10.0 with any for a liv s where Il fit betw h (by oth	snow); Pf=11 e DOL=1.15); 10 ponsible for ain loading truss compon d bearing. 0 psf bottom other live load e load of 20.0 a rectangle veen the bottos ers) of truss to	.5 ent. ds. psf m						
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103 II; Exp B; If and C-C E 5-9-2, Exte 9-2-6 zone vertical left forces & M DOL=1.60 3) Truss desi only. For see Stand or consult	(Ib) - Maximum Com Tension 1-2=-231/168, 2-3=-5 1-5=-123/204, 4-5=-5 2-5=-333/121 ed roof live loads have b. CE 7-10; Vult=130mph mph; TCDL=3.0psf; BC Enclosed; MWFRS (en Enclosed; MWFRS (en erior (2) 0-0-5 to 3-0 erior (2) 5-9-2 to 8-9-2, e; cantilever left and rig t and right exposed; C-1 MWFRS for reactions sl plate grip DOL=1.60 plate grip DOL=1.60 plate grip DOL=1.60 ard Industry Gable Enc qualified building design	pression/Maximum pression/Maximum 93/112, 3-4=-122/104 38/36 been considered for (3-second gust) CDL=3.0psf; h=25ft; (velope) exterior zone -5, Interior (1) 3-0-5 t Interior (1) 3-0-5 t Interior (1) 8-9-2 to sht exposed ; end C for members and hown; Lumber the plane of the truss: (normal to the face), d Details as applicabl gner as per ANSI/TPI	be 4, LOAD Cat. 9 0	earing plate , 62 lb uplift D CASE(S)	capable of withsta at joint 1 and 140 Standard	anding 8 Ib uplift	0 lb uplift at jo at joint 5.	int		Willing		SEA 0363	ROLVER AND	F

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818 Soundside Road Edenton, NC 27932

GI minim May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BV03	Valley	1	1	Job Reference (optional)	173305329

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:27 Page: 1 ID:51a_LoMVaof38780e2DYxszKaym-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



8-1-7

Scale = 1:32.3

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015/TI	PI2014	CSI TC BC WB Matrix-MP	0.25 0.29 0.06	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 33 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 1=8-1-7, Max Horiz 1=97 (LC Max Uplift 1=-74 (LC 5=-60 (LC Max Grav 1=149 (L 5=326 (L (lb) - Maximum Con Tension 1-2=-188/122, 2-3= 1-5=-10/166 4.5=	eathing directly applie coept end verticals. / applied or 10-0-0 or 4=8-1-7, 5=8-1-7 11) C 15), 4=-86 (LC 15). C 14) C 26), 4=126 (LC 26 C 25) npression/Maximum -91/93, 3-4=-137/113	4) T P C 5) B c 7) G c 7) G c 8) T 9) * , 0 c 3 , 10) P b b c c 4 2 3 4 3 4 3 5 5 5 8 7 6 6 6 7 7 6 7 7 9 7 8 7 7 8 7 8 7 7 8 7 8 7 8 7 8 7	CLL: ASCE Plate DOL=1. Sf (flat roofs category II; E erifying Rain equirements cable require cable studs s hord live load This truss has hord live load This truss has nor the bottom -06-00 tall by hord and any provide mech earing plate e, 74 lb uplift : D CASE(S)	7-10; Pr=20.0 p: 15); Pg=15.0 ps now: Lum DOL- ixp B; Partially E gner/Project eng Load = 5.0 (psf specific to the u s continuous bo ipaced at 4-0-0 of s been designed d nonconcurrent as been designed d nonconcurrent as been designed v 2-00-00 wide v y other members ianical connectic capable of withs at joint 1 and 60 Standard	sf (roof LL f (ground ±1.15 Plat ixp.; Ct=1 jineer resp) covers r se of this ttom chor oc. for a 10.0; with any d for a liv as where vill fit betw s. on (by oth standing & Ib uplift a	: Lum DOL= snow); Pf=1 ⁻ e DOL=1.15) .10 oonsible for ain loading truss comport d bearing. 0 psf bottom other live loa e load of 20.0 a rectangle veen the bottot ers) of truss t 6 lb uplift at j t joint 5.	1.15 1.5 ; ment. ds. Dpsf om io						
WEBS	2-5=-225/55	10/11												
NOTES	ed roof live loads have	been considered fo	r									minin	un _n ,	
 this desig Wind: AS Vasd=102 II; Exp B; and C-C E 4-6-12, E: to 8-0-0 z vertical le forces & N DOL=1.60 Truss des only. For see Stance 	n. CE 7-10; Vult=130mpł 3mph; TCDL=3.0psf; E Enclosed; MWFRS (e Exterior (2) 0-0-5 to 3-6 xterior (2) 4-6-12 to 7-6 one; cantilever left and ft and right exposed; C WWFRS for reactions s 0 plate grip DOL=1.60 signed for wind loads in studs exposed to wind lard Industry Gable Fr	h (3-second gust) CDL=3.0psf; h=25ft; nvelope) exterior zon 3-5, Interior (1) 3-0-5 3-12, Interior (1) 7-6- 1 right exposed; end -C for members and shown; Lumber h the plane of the trus d (normal to the face) d Details as applicat	Cat. ne to 12 ss), ble.							A CONTRACT	R. I.	SEA 0363	L L L L L L L L L L L L L L L L L L L	•

DOL=1.60 plate grip DOL=1.60 Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), 3) see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Schut Information, purplication component component durate propagate component component to the prevent collapse with possible for the Studyer Building Component Advance and Adva and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



G minim May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BV04	Valley	1	1	Job Reference (optional)	173305330

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:27 Page: 1 ID:51a_LoMVaof38780e2DYxszKaym-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.4

Plate Offsets (X, Y): [3:0-3-0,Edge]

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015	5/TPI2014	CSI TC BC WB Matrix-MP	0.13 0.14 0.07	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 25 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD 3OT CHORD DTHERS BRACING TOP CHORD 3OT CHORD 3OT CHORD REACTIONS FORCES TOP CHORD BOT C	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=6-8-2,4 Max Horiz 1=-65 (LC Max Uplift 1=-1 (LC 3 5=-168 (L Max Grav 1=48 (LC (LC 2) (lb) - Maximum Com Tension 1-2=-88/171, 2-3=-4 1-5=-146/126, 4-5=- 2-5=-308/192 ed roof live loads have brack for five loads have charter (2) 0-0-5 to 6-4 c; cantilever left and right exposed; GWFRS (en uplate grip DOL=1.60 0 plate grip DOL=1.60 on studs exposed to wind ard Industry Gable Enc qualified building design	athing directly applie applied or 6-0-0 oc I=6-8-2, 5=6-8-2 :10) 30), 4=-18 (LC 29), C 14) 29), 4=66 (LC 30), 5 pression/Maximum 1/44, 3-4=-90/161 158/133 been considered for (3-second gust) CDL=3.0psf; h=25ft; ivelope) exterior zon -6, Interior (1) 6-4-6 th texposed ; end C for members and hown; Lumber the plane of the trus (normal to the face) d Details as applicat gner as per ANSI/TF	4) 5) d or 6) 7) 8) 9) 5=401 10) 5=401 10) Cat. e to Ss, ile, 11.	TCLL: ASCE Plate DOL=1 psf (flat roof Category II; I Building Des verifying Rain requirements Gable require Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar) Provide mec bearing plate 18 lb uplift at VAD CASE(S)	7-10; Pr=20.0 psf 15; Pg=15.0 psf snow: Lum DOL=1 sxp B; Partially Ex. gner/Project engin Load = 5.0 (psf) specific to the us as continuous bott spaced at 4-0-0 ou s been designed f id nonconcurrent to as been designed n chord in all areas y 2-00-00 wide wi y other members. nanical connection capable of withst joint 4 and 168 lb Standard	f (roof LL (ground 1.15 Plat p.; Ct=1 heer res covers r e of this om chor c. for a 10.4 with any I for a liv s where II fit betv h (by oth anding 1 uplift at	:: Lum DOL=' snow); Pf=11 e DOL=1.15); 10 consible for ain loading truss compor d bearing. 0 psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t Ib uplift at joi joint 5.	1.15 .5 ; nent. ds. ppsf om o int 1,				SEA 0363	L L L L BERNIN	and an

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Schut Information, purplication component component durate propagate component component to the prevent collapse with possible for the Studyer Building Component Advance and Adva and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



GI 11111111 May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	BV05	Valley	1	1	Job Reference (optional)	173305331

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:27 Page: 1 ID:ZD8MY8N7L6nwlHjDCmknU4zKayl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

> 818 Soundside Road Edenton, NC 27932



Scale = 1:23.6

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

				-								
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	5.0										Weight: 13 lb	FT = 20%
LUMBER			6) Gable req	uires continuous bot	tom chor	d bearing.						
TOP CHORD	2x4 SP No.2		7) Gable stu	is spaced at 4-0-0 o	C.							
BOT CHORD	2x4 SP No.2		8) This truss	has been designed i	for a 10.0) pst bottom	do					
BRACING			. 9) * This trus	s has been designed	d for a liv	e load of 20 (ius. Inst					
TOP CHORD	4-3-5 oc purlins.	athing directly applie	d or on the bot	om chord in all area	s where	a rectangle	ры					
BOT CHORD	Rigid ceiling directly bracing.	applied or 10-0-0 oc	chord and	II by 2-00-00 wide w any other members.	ill fit betv	veen the botto	om					
REACTIONS	(size) 1=4-3-5.3	3=4-3-5	10) Provide m	echanical connection	n (by oth	ers) of truss t	to					
	Max Horiz 1=-40 (LC	; 10)	bearing pl	ate capable of withst	tanding 4	3 lb uplift at j	oint					
	Max Uplift 1=-43 (LC	14), 3=-43 (LC 15)		Dupint at joint 3.								
	Max Grav 1=150 (LC	C 2), 3=150 (LC 2)	LUAD CASE(5) Standard								
FORCES	(lb) - Maximum Com Tension	pression/Maximum										
TOP CHORD	1-2=-203/83, 2-3=-2	03/83										
BOT CHORD	1-3=-58/159											
NOTES												
1) Unbalance	ed roof live loads have	been considered for										
this desigr	۱.											
2) Wind: ASC	CE 7-10; Vult=130mph	(3-second gust)	. .									
Vasd=103	mph; TCDL=3.0psf; B	CDL=3.0pst; h=25ft;	Cat.									1111
II; EXP B; I	Enclosed; MWFRS (en	ever left and right	e								N'TH CA	ROUL
exposed ·	end vertical left and rid	oht exposed C-C for								S	Aures	in Inter
members	and forces & MWFRS	for reactions shown;							/	20	FESS	NO S'
Lumber D	OL=1.60 plate grip DO	L=1.60							4			
Truss desi	igned for wind loads in	the plane of the trus	S						-			
only. For	studs exposed to wind	(normal to the face)							=	:	SEA	L : =
see Stand	ard Industry Gable En	d Details as applicab	1e, 1 1						Ξ		0363	22 E
4) TCLL · AS(CF 7-10. Pr=20.0 psf ($r_{OO}f [1] \cdot [um DO] = 1$	15								. 0000	
Plate DOL	.=1.15); Pg=15.0 psf (c	round snow); Pf=11.	.5							2	N	1 2
psf (flat ro	of snow: Lum DOL=1.	15 Plate DOL=1.15);								2.1	N. ENG	-ERIX S
Category I	I; Exp B; Partially Exp.	.; Ct=1.10								1	S, GIN	Et AN
5) Building D	esigner/Project engine	er responsible for								1	CAC	BEIN
verifying R	ain Load = 5.0 (psf) co	overs rain loading	- mł								11111	
requireme	his specific to the use	or this truss compon	ent.									0.0005
											IVIa	ay 0,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	P01	Half Hip	1	1	Job Reference (optional)	173305332

 Run:
 9.13 S 8.83 Apr 24 2025 Print:
 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:27
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 ID:IX?8j9mgri1M5RPYJQH5d9zKrYp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f
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		1	5-10-4	1	12-5-12		1		19-3-0		1	
Seele - 1:51 9			5-10-4	l	6-7-8				6-9-4		1	
Scale = 1.51.6		. <u> </u>				i	-					
Loading TCLL (roof) Snow (Pf/Pg)	(psf) 20.0 16.5/15.0	Spacing Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15	CSI TC BC	0.68 0.64	DEFL Vert(LL) Vert(CT)	in -0.10 -0.18	(loc) 8-9 8-9	l/defl >999 >999	L/d 240 180	PLATES MT20	GRIP 244/190
BCLL BCDL	10.0 0.0* 5.0	Code	IRC2015/TPI20	14 Matrix-MS	0.49	Horz(CT)	0.03	6	n/a	n/a	Weight: 87 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood she 4-1-3 oc purlins, ex 2-0-0 oc purlins (3-7 Rigid ceiling directly bracing. (size) 2=0-5-8, 6 Max Horiz 2=91 (LC Max Uplift 2=-293 (L Max Grav 2=722 (LC (lb) - Maximum Corr	ot* 8-3,8-5:2x4 SP Not athing directly applie cept end verticals, ar -11 max.): 3-5. - applied or 7-8-4 oc 6=0-5-8 15) C 12), 6=-255 (LC 1 C 12), 6=-255 (LC 1 C 2), 6=-20 (LC 35) ipression/Maximum	4) Unbal design 5) This tr load o overha ed or 6) Buildin verifyi requir 7) Provic 8) This tr chord 9) * This 2) 3-06-0 chord 10) Provic	anced snow loads h uss has been desig f 12.0 psf or 1.00 tir angs non-concurren g Designer/Project ng Rain Load = 5.0 ements specific to th le adequate drainag uss has been desig live load nonconcur truss has been desig bottom chord in all 10 tall by 2-00-00 wi and any other meme te mechanical conne	ave been co ned for great nes flat roof I t with other li engineer res (psf) covers ne use of this e to prevent ned for a 10. gned for a lin areas where de will fit bety bers. ection (by oth	nsidered for er of min roc poad of 11.5 ty ponsible for ain loading truss compo water pondir 0 psf bottom other live lo re load of 20 a rectangle veen the bot ers) of truss	this of live posf on onent. ng. ads. Opsf ttom					
TOP CHORD BOT CHORD WEBS	Tension 1-2=0/19, 2-3=-1546 4-5=-1635/612, 5-6= 2-9=-552/1422, 8-9= 3-9=0/200, 4-8=-518	5/567, 3-4=-1635/612 =-683/269 =-553/1415, 6-8=-44/ 3/243, 3-8=-130/321,	2, 6 and 11) Graph 73 or the	g plate capable of v 293 lb uplift at joint ical purlin represent orientation of the pu chord	vithstanding 2 2. ation does n urlin along the	255 lb uplift a ot depict the e top and/or	at joint size					
NOTES 1) Unbalanci this design	5-8=-592/1634 ed roof live loads have n.	been considered for	LOAD CA	SE(S) Standard							WITH CA	Route
2) Wind AS	CE 7-10: Vult-130mph	(3-second quet)								1		······································

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-0-0, Exterior (2) 6-0-0 to 10-2-15, Interior (1) 10-2-15 to 19-1-4 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

 TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	P02	Half Hip	1	1	Job Reference (optional)	173305333

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:28 Page: 1 ID:X3UAOuthyA1D2g04n6QzxrzKrYh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





	L		7-10-4		1	3-5-12	1		19-3-0			
	Г		7-10-4	I		5-7-8	I		5-9-4			
(psf) 20.0 16.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	015/TPI2014	CSI TC BC WB Matrix-MS	0.50 0.49 0.84	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.16 0.04	(loc) 10-13 10-13 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 93 lb	GRIP 244/190 FT = 20%
2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 4-4-8 oc purlins, ex 2-0-0 oc purlins (5-0 Rigid ceiling directly bracing. (size) 2=0-5-8,7 Max Horiz 2=120 (LC Max Uplift 2=-292 (L Max Grav 2=722 (LC (lb) - Maximum Com Tension 1-2=0/19, 2-3=-1631 4-5=-1182/482, 5-6= 2-10=-660/1531, 9-1 7-9=-404/1054 4-10=-13/216, 5-9=0 5-10=-88/253, 5-7=-	athing directly appl cept end verticals, -2 max.): 4-6. applied or 7-3-7 or 7=0-5-8 C 15) C 12), 7=-257 (LC C 2), 7=689 (LC 35 pression/Maximum /632, 3-4=-1292/4 -60/54, 6-7=-168/7 0=-404/1054, 0/167, 3-10=-450/2 1134/441	lied or and c 12)) 1 86, '9 13,	 Unbalanced design. This truss h. load of 12.0 overhangs r Building Des verifying Ra requirement Provide ade This truss h. chord live lo * This truss on the bottoo 3-06-00 tall chord and a Provide med bearing plat 7 and 292 lb Graphical pl or the orient bottom chor 	snow loads hat as been designing on-concurrent signer/Project e in Load = 5.0 (p s specific to the quate drainage as been designing ad nonconcurrent has been designing on chord in all a by 2-00-00 wide ny other member chanical connect e capable of wit o uplift at joint 2 urlin representa ation of the pur d. Standard	ve been cor ed for great es flat roof lk with other lin ngineer res osf) covers r e use of this to prevent v ed for a 10.0 ent with any ned for a liv reas where e will fit betw ers. ction (by oth thstanding 2 tion does no lin along the	er of min roc oad of 11.5 p ve loads. ponsible for ain loading truss compo- water pondir 0 psf bottom other live loi e load of 20 a rectangle veen the bot ers) of truss (57 lb uplift a bt depict the top and/or	this of live psf on onent. ng. ads. .0psf tom to at joint size					111111
ed roof live loads have n.	been considered f	or								-AL	ORTHCA	ROUNT
	(psf) 20.0 16.5/15.0 10.0 0.0* 5.0 2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 4-4-8 oc purlins, ex 2-0-0 oc purlins (5-0 Rigid ceiling directly bracing. (size) 2=0-5-8, 7 Max Horiz 2=120 (LC Max Uplift 2=-292 (L Max Grav 2=722 (LC (lb) - Maximum Com Tension 1-2=0/19, 2-3=-1631 4-5=-1182/482, 5-6= 2-10=-660/1531, 9-1 7-9=-404/1054 4-10=-13/216, 5-9=0 5-10=-88/253, 5-7=- ed roof live loads have	(psf) Spacing 20.0 Plate Grip DOL 16.5/15.0 Lumber DOL 10.0 Rep Stress Incr 0.0* 5.0 2x4 SP No.2 Code 2x4 SP No.2 Structural wood sheathing directly appl 4-4.8 oc purlins, except end verticals, 2-0-0 oc purlins (5-0-2 max.): 4-6. Rigid ceiling directly applied or 7-3-7 or bracing. Structural wood sheathing directly applied or 7-3-7 or bracing. (size) 2=0-5-8, 7=0-5-8 Max Horiz 2=120 (LC 15) Max Uplift 2=-292 (LC 2), 7=-89 (LC 35) (b) - Maximum Compression/Maximum Tension 1-2=0/19, 2-3=-1631/632, 3-4=-1292/4 4-5=-1182/482, 5-6=-60/54, 6-7=-168/7 2-10=-660/1531, 9-10=-404/1054, 4-10=-13/216, 5-9=0/167, 3-10=-405/2 4-10=-13/216, 5-9=0/167, 3-10=-405/2 5-10=-88/253, 5-7=-1134/441 ed roof live loads have been considered f 1	(psf) Spacing 2-0-0 20.0 Plate Grip DOL 1.15 16.5/15.0 Lumber DOL 1.15 10.0 Rep Stress Incr YES 0.0* 5.0 Code IRC20 2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood sheathing directly applied or 4-4-8 oc purlins, except end verticals, and 2-0-0 cc purlins (5-0-2 max.): 4-6. Rigid ceiling directly applied or 7-3-7 oc bracing. 50 (size) 2=0-5-8, 7=0-5-8 Max Horiz 2=120 (LC 15) Max Uplift 2=292 (LC 12), 7=-257 (LC 12) Max Grav 2=722 (LC 2), 7=689 (LC 35) (lb) - Maximum Compression/Maximum Tension 1-2=0/19, 2-3=-1631/632, 3-4=-1292/486, 4-5=-1182/482, 5-6=-60/54, 6-7=-168/79 2-10=-660/1531, 9-10=-404/1054, 7-9=-404/1054, 7-9=-404/1054, 7-9=-404/1054, 4-10=-13/216, 5-9=0/167, 3-10=-450/213, 5-10=-88/253, 5-7=-1134/441 ed roof live loads have been considered for 1 1 1	$\begin{array}{ c c c c c } \hline & & & & & & & & & & & & & & & & & & $	$\begin{array}{ c c c c c c }\hline\hline & 7-10-4 \\\hline\hline & 7-10-4 \\\hline\hline\hline & 7-10-4 \\\hline\hline\hline\hline & 7-10-4 \\\hline\hline\hline\hline\hline & 7-10-4 \\\hline\hline\hline\hline\hline\hline & 7-10-4 \\\hline\hline\hline\hline\hline\hline\hline\hline & 7-10-4 \\\hline\hline\hline\hline\hline\hline\hline\hline\hline\hline\hline & 7-10-4 \hline$	$7-10-4$ 1 (psf) $2.0.0$ $1.6.5/15.0$ 10.0 0.0^* Spacing Plate Grip DOL Lumber DOL 1.15 Rep Stress Incr Code $2-0.0$ 1.15 Rep Stress Incr CodeCSI TC $C 0.49$ WB W	Print Spacing 2-0-0 CSI DEFL 20.0 Plate Grip DOL 1.15 TC 0.50 Vert(LL) 16.5/15.0 1.00 0.0* Code IRC2015/TPI2014 BC 0.49 2x4 SP No.2 Code IRC2015/TPI2014 Matrix-MS DEFL Vert(LL) 2x4 SP No.2 Code IRC2015/TPI2014 Matrix-MS Deff Vert(LL) 2x4 SP No.2 Structural wood sheathing directly applied or 4-4-8 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-2 max.): 4-6. Suilding Designer/Project engineer responsible for verifying Rain Load = 5.0 (ps) covers rain loading requirements specific to the use of this truss comprom chord live load nonconcurrent with other live loads. 35 Structural wood sheathing directly applied or 7-3-7 oc bracing. This truss has been designed for a live load of 2.0 (ps) covers rain loading requirements specific to the uses of this truss comprom chord live load nonconcurrent with any other live load of 2.0 (ps) covers rain loading 2.06-00 tall by 2-00-00 wide will fit between the bot chord and any other members. (b) - Maximum Compression/Maximum Tension This truss has been designed for a live load of 2.0 on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 withes and up other inve load of 2.0 on the bottom chord. 12-20/19, 2-3=-1631/632, 3-4=-1292/486, 4-5=-1182/482, 5-6==-60/54, 6-7==-168/79 2-10=-660/1531, 9-10=-404/1054, 7	7-10-4 13-5-12 7-10-4 5-7-8 (psf) Spacing 2-0-0 CSi DEFL in 16.5/15.0 Lumber DOL 1.15 TC 0.50 Vert(CT) -0.16 0.0* Code IRC2015/TPI2014 Matrix-MS Vert(CT) -0.16 2x4 SP No.2 Code IRC2015/TPI2014 Matrix-MS Vert(CT) -0.04 2x4 SP No.2 Structural wood sheathing directly applied or 7-3-7 oc bracing. This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads. 9 *Droide mechanical connection (b) covers rain loading requirements specific to the use of this truss component. 7) Provide adequate drainage to prevent water ponding. (size) 2-0-5-8, 7=0-5-8 Max Horiz 2=120 (LC 15) Max Horiz 2=120 (LC 12), 7=-257 (LC 12) Max Horiz 2=2120 (LC 2), 7=-689 (LC 35) (b) - Maximum Compression/Maximum Tension 1-2-019, 2-3=-1182/482, 5-6=-60/54, 6-7=-168/79 2-100-0000 die will fit between the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord any other members. 10) Frovide mechanical connection (by others) of truss to bearing plate capable of withstanding 257 lb upilif at	Prior Prior <th< td=""><td>$7-10-4$$13-5-12$$19-3-0$$7-10-4$$5-7-8$$5-9-4$$20.0$ Plate Grip DOL 10.0 0.0°Plate Grip DOL Plate Grip DOL Lumber DOL $1.15$$1.15$ Rep Stress Incr CodeCSI TC DC BCDEFL Vert(CT) $0.04$$7$$2x4$ SP No.2 $2x4$ SP No.2 $2x4$ SP No.3$1.15$ CodeWB IRC2015/TPI2014$80.84$ Matrix-MSDEFL Vert(CT) $0.04$$7$ $n/a$$2x4$ SP No.2 $2x4$ SP No.3$4$Unbalanced snow loads have been considered for this design.$5.0$$7$ $0.04$$7$ $n/a$$2x4$ SP No.2 $2x4$ SP No.3$4$Unbalanced snow loads have been considered for this design.$5.0$$7$ $0.04$$7$ $n/a$$2x4$ SP No.2 (2x4 SP No.3)4Unbalanced snow loads have been considered for this design.$5.0$$7$ $0.04$$7$ $0.04$$7$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ $0.04$$7$ </td><td>$\begin{array}{ c c c c c }\hline\hline \hline \hline$</td><td>$\frac{7-10-4}{7-10-4} = \frac{13-5-12}{5-9-4} = \frac{19-3-0}{5-9-4}$ $\frac{(ps)}{20.0}$ $\frac{(ps)}{20.0}$ $\frac{(ps)}{10.5}$ $\frac{(ps)}{20.0}$ $\frac{(ps)}{10.5}$ $\frac{(ps)}{10.0}$ \frac</td></th<>	$7-10-4$ $13-5-12$ $19-3-0$ $7-10-4$ $5-7-8$ $5-9-4$ 20.0 Plate Grip DOL 10.0 0.0° Plate Grip DOL Plate Grip DOL Lumber DOL 1.15 1.15 Rep Stress Incr CodeCSI TC DC BCDEFL Vert(CT) 0.04 7 $2x4$ SP No.2 $2x4$ SP No.2 $2x4$ SP No.3 1.15 CodeWB IRC2015/TPI2014 80.84 Matrix-MSDEFL Vert(CT) 0.04 7 n/a $2x4$ SP No.2 $2x4$ SP No.3 4 Unbalanced snow loads have been considered for this design. 5.0 7 0.04 7 n/a $2x4$ SP No.2 $2x4$ SP No.3 4 Unbalanced snow loads have been considered for this design. 5.0 7 0.04 7 n/a $2x4$ SP No.2 (2x4 SP No.3) 4 Unbalanced snow loads have been considered for this design. 5.0 7 0.04 7 0.04 7 7 0.04 7 7 0.04 7 	$\begin{array}{ c c c c c }\hline\hline \hline \hline$	$\frac{7-10-4}{7-10-4} = \frac{13-5-12}{5-9-4} = \frac{19-3-0}{5-9-4}$ $\frac{(ps)}{20.0}$ $\frac{(ps)}{20.0}$ $\frac{(ps)}{10.5}$ $\frac{(ps)}{20.0}$ $\frac{(ps)}{10.5}$ $\frac{(ps)}{10.0}$ \frac

Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-0-0, Exterior (2) 8-0-0 to 12-2-15, Interior (1) 12-2-15 to 19-1-4 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

TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0

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818 Soundside Road Edenton, NC 27932

GI

SEAL 036322

With Hilling

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	P03	Half Hip	1	1	Job Reference (optional)	173305334

3-11-3

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:28 Page: 1 ID:pPPpsHy4JJwDOl2Qh42cjJzKrYa-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



			5-4-1)	9-10-4				18	-7-8			
Scale = 1:44.8	1		5-4-1)	4-5-10		Į		8-	9-4		I	
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL	(psf) 20.0 16.5/15.0 10.0 0.0*	Spacing Plate Grip DO Lumber DOL Rep Stress In Code	2-0-0 DL 1.15 1.15 cr YES IRC201	5/TPI2014	CSI TC BC WB Matrix-MS	0.33 0.61 0.49	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.20 -0.31 0.03	(loc) 7-9 7-9 7	l/defl >999 >710 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190
BCDL	5.0	0000	11(020)	0/11/2011								Weight: 91 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 4-6-3 oc purlins, exc 2-0-0 oc purlins (5-1 Rigid ceiling directly bracing. (size) 2=0-5-8, 7 Max Horiz 2=144 (LC Max Uplift 2=-275 (LC Max Grav 2=716 (LC (lb) - Maximum Com Tension 1-2=0/19 2-3=-1517	athing directly a ept 1-6 max.): 4-6. applied or 7-6-6 (= Mechanical 2 12) C 12), 7=-257 (1 2 36), 7=646 (L0 pression/Maxim	4 5 5 6 oc 7 8 6 oc 7 8 9 LC 12) C 2) num 1 0/357	Unbalanced design. This truss ha load of 12.0 overhangs n Building Des verifying Rai requirement Provide ade This truss ha chord live lo. * This truss lo on the botto 3-06-00 tall chord and ai D) Refer to gird 1) Provide meet	snow loads have the set of the se	been cor or great at roof lo other lin heer res covers r e of this brevent to or a 10.1 with any to ra liv s where Il fit betw uss conr h (by oth	sidered for t er of min roo ad of 11.5 p ve loads. ponsible for ain loading truss compo water pondin 0 psf bottom other live loa e load of 20. a rectangle veen the bott nections. ers) of truss	his f live ssf on g. ads. Opsf to					
BOT CHORD	4-5=-917/362, 5-6=0 2-10=-607/1414, 9-1 7-9=-284/649 3-10=0/98 4-9=0/16	/0 0=-607/1414, 1 3-9=-623/273	1:	2 and 257 lb 2) Graphical pu or the orient	uplift at joint 7. Irlin representation ation of the purlin a	does no	ot depict the set top and/or	size					
112BO	6-7=-117/58, 5-9=-10	07/400, 5-7=-82	24/361 L	DAD CASE(S)	Standard								10
NOTES 1) Unbalanc this desig 2) Wind: AS Vasd=100 II; Exp B; and C-C E 10-0-0, E: to 18-5-12 vertical le forces & M DOL=1.60 3) TCLL: AS Plate DOI ps f(flat to	ed roof live loads have n. CE 7-10; Vult=130mph 3mph; TCDL=3.0psf; BC Enclosed; MWFRS (en Exterior (2) 10-0-0 to 14-2 2 zone; cantilever left ar ft and right exposed;C-1 WWFRS for reactions sh 0 plate grip DOL=1.60 ICE 7-10; Pr=20.0 psf (t L=1.15); Pg=20.0 psf (t L=1.15); Pg=10.0 p=1	been considerer (3-second gust CDL=3.0psf; h= velope) exterior -1-8, Interior (1) 2-0, Interior (1) dright expose C for members nown; Lumber roof LL: Lum DO round snow); P 5 Plate DOI =1	ed for :25ft; Cat. r zone) 2-1-8 to 14-2-0 d ; end and DL=1.15 rf=16.5 (15):									SEA 0363	L 22 BEER BERT

3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0

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818 Soundside Road Edenton, NC 27932

GI 1111111 May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	P04	Half Hip	1	1	Job Reference (optional)	173305335

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:28 Page: 1 ID:ZngQ?WPoS_oO14GqBBlbXKzKraa-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



			6-	4-10	1	11-10-	4			18-7-8	3		
$S_{22} = 1.47.6$		ļ	6-	4-10	I	5-5-10)	I		6-9-4		I	
Scale = 1:47.6		i											
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 16.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015	5/TPI2014	CSI TC BC WB Matrix-MS	0.87 0.62 0.87	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.14 0.03	(loc) 9-12 9-12 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 91 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood shea 4-3-4 oc purlins, exc 2-0-0 oc purlins (8-1 Rigid ceiling directly bracing. (size) 2=0-5-8, 6 Max Horiz 2=170 (LC Max Uplift 2=-270 (L Max Grav 2=750 (LC	t* 6-4:2x4 SP No.2 athing directly applied ept -8 max.): 4-5. applied or 7-7-3 oc 6= Mechanical C 12) C 12), 6=-262 (LC 12) C 36), 6=646 (LC 2)	4) 5) or 6) 7) 8) 9)	Unbalanced design. This truss ha load of 12.0 overhangs n Building Des verifying Rai requirement Provide ade This truss ha chord live lo * This truss l on the botto 3-06-00 tall	snow loads have as been designed psf or 1.00 times igner/Project en n Load = 5.0 (ps s specific to the u quate drainage to as been designed noconcurren has been designen n chord in all are by 2-00-00 wide	e been cor d for great tat roof li tith other lin gineer res f) covers r use of this o prevent d for a 10. t with any ed for a liv as where will fit betv	nsidered for t er of min rool oad of 11.5 p ve loads. oonsible for ain loading truss compo water pondin. D psf bottom other live loa e load of 20.1 a rectangle veen the bott	his f live sf on nent. g. ads. Opsf om					
FORCES TOP CHORD BOT CHORD	(lb) - Maximum Com Tension 1-2=0/19, 2-3=-1513 4-5=0/0 2-9=-583/1400, 8-9=	apression/Maximum 3/502, 3-4=-818/282, 583/1400, 6-8=-295/	10 11 711 12	 chord and an chord and an end a	er(s) for truss to chanical connecti capable of with uplift at joint 6.	s. truss conr on (by oth standing 2 on does no	nections. ers) of truss 270 lb uplift at ot depict the s	to t joint size					
WEBS	3-9=0/175, 4-8=-73/3	377, 3-8=-794/322, 38/347		or the orient	ation of the purlir	n along the	e top and/or						
NOTES 1) Unbalance this design	ed roof live loads have n.	been considered for	LC	AD CASE(S)	Standard							TH CA	Route
 Wind: AS0 Vasd=103 II; Exp B; I and C-C E 12-0-0, Ex 16-2-15 to exposed; members Lumber D¹ TCLL: AS0 Plate DOL psf (flat ro 	CE 7-10; Vult=130mph mph; TCDL=3.0psf; B(Enclosed; MWFRS (en Exterior (2) -0-10-8 to 2 terior (2) 12-0-0 to 16- b 18-5-12 zone; cantilev end vertical left and rig and forces & MWFRS OL=1.60 plate grip DO CE 7-10; Pr=20.0 psf (i =1.15); Pg=15.0 psf (g of snow: Lum DOL=1.	(3-second gust) CDL=3.0psf; h=25ft; C ivelope) exterior zone -1-8, Interior (1) 2-1-8 2-15, Interior (1) ver left and right ght exposed;C-C for for reactions shown; uL=1.60 roof LL: Lum DOL=1.1 ground snow); Pf=16.5 15 Plate DOL=1.15);	to							Marinine.		SEA 0363	L 22 EERER LIN

Lumber DOL=1.60 plate grip DOL=1.60 TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0

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G mm May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	P05	Common	5	1	Job Reference (optional)	173305336

3-11-0

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:28 Page: 1 ID:qyTg?vMPImCPTzfyhDfa6UzKrY2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:32.4

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15			0.21	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
Show (Pt/Pg)	11.5/15.0	Lumber DOL	1.15 VEC		BC	0.08		-0.01	4-5	>999	180		
DOLL	10.0	Rep Stress Incr	IDCOC			0.04	HOIZ(CT)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2U	115/11912014	watrix-wiP							Weight: 30 lb	FT - 20%
	5.0				Į		-					Weight. 39 ib	11 = 2070
LUMBER			4	5) This truss ha	as been designed	for a 10.0) psf bottom						
TOP CHORD	2x4 SP No.2			chord live lo	ad nonconcurrent	with any	other live loa	ads.					
BOT CHORD	2x4 SP No.2			6) * This truss I	has been designe	d for a liv	e load of 20.	0psf					
WEBS	2x4 SP No.3			on the botto	m chord in all area	as where	a rectangle						
BRACING				3-06-00 tall I	by 2-00-00 wide w		leen the bott	om					
TOP CHORD	Structural wood she 6-0-0 oc purlins, exe	athing directly applic cept end verticals.	ed or	7) Provide med	chanical connectio	n (by oth	ers) of truss	to					
BOT CHORD	Rigid ceiling directly bracing.	applied or 10-0-0 o	c ;	bearing plate B) Provide med	e at joint(s) 4. chanical connectio	n (by oth	ers) of truss	to					
REACTIONS	(size) 4=0-2-6, 6 Max Horiz 6=-100 (L Max Uplift 4=-59 (LC	6=0-5-8 C 12) : 15), 6=-60 (LC 15)	, I	bearing plate 6 and 59 اله ر LOAD CASE(S)	e capable of withs uplift at joint 4. Standard	tanding 6	0 lb uplift at	joint					
	Max Grav 4=224 (LC	C 2), 6=224 (LC 2)											
FORCES	(lb) - Maximum Com Tension	pression/Maximum											
TOP CHORD	1-2=-180/77, 2-3=-1 3-4=-209/106	87/77, 1-6=-214/105	5,										
BOT CHORD	5-6=-93/92, 4-5=-15	/16											
WEBS	3-5=-27/123, 2-5=-2	1/72, 1-5=-25/123											
NOTES													
1) Unbalance	ed roof live loads have	been considered fo	r										
this desig	n.												111
2) Wind: AS	CE 7-10; Vult=130mph	(3-second gust)										N''LL CA	DIL
Vasd=103	Bmph; TCDL=3.0psf; B	CDL=3.0psf; h=25ft;	; Cat.								- 5	"ATH UP	no in
II; Exp B;	Enclosed; MWFRS (en	velope) exterior zor	ne							/	S	ONFESS	ich i'r
and C-C E	Exterior (2) 0-7-4 to 6-8	-8, Interior (1) 6-8-8	s to							4	23	120	N. T.
7-0-2 ZON	e; cantilever left and rig	int exposed ; end								4	2	:0	num
forces & M	WFRS for reactions s	hown. I umber								-		0.54	

TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

DOL=1.60 plate grip DOL=1.60

Building Designer/Project engineer responsible for 4) verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	P06	Monopitch	4	1	Job Reference (optional)	173305337

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:29 Page: 1 ID:AZdQDYOE8B7lthXa?QDqsczKrZI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.3

Plate Offsets (X, Y): [4:Edge,0-3-8]

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015/	/TPI2014	CSI TC BC WB Matrix-MR	0.67 0.49 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.07 -0.12 0.00	(loc) 4-8 4-8 2	l/defl >999 >767 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 32 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance this desigr 2) Wind: ASC Vasd=103 II; Exp B; I and C-C E to 7-6-4 zc vertical lef forces & M DOL=1.60 3) TCLL: ASC Plate DOL psf (flat ro category I 4) Unbalance	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Structural wood she: 6-0-0 oc purlins, exi Rigid ceiling directly bracing. (size) 2=0-5-8, 9 Max Horiz 2=108 (LC Max Uplift 2=-140 (LL Max Grav 2=342 (LC (Ib) - Maximum Com Tension 1-2=0/20, 2-3=-254/3 3-5=-103/143 2-4=-86/204 3-9=-202/0 ed roof live loads have b. CE 7-10; Vult=130mph mph; TCDL=3.0psf; BC Enclosed; MWFRS (en Enclosed; MWFRS (en Enclosed; MWFRS for exterior (2) -1-0-8 to 1 one; cantilever left and t and right exposed;C MWFRS for reactions s1 oplate grip DOL=1.60 CE 7-10; Pr=20.0 psf (g of snow: Lum DOL=1.1 II; Exp B; Partially Exp.	athing directly applied cept end verticals. applied or 10-0-0 oc 2)=0-1-8 C 12), 9=-109 (LC 16 C 2), 9=-247 (LC 2) pression/Maximum 53, 4-5=-1/129, been considered for (3-second gust) CDL=3.0pst; h=25ft; 4 welope) exterior zone 11-8, Interior (1) 1-11 right exposed ; end C for members and hown; Lumber roof LL: Lum DOL=1. pround snow); Pf=11. 15 Plate DOL=1.15); ; Ct=1.10	5) 6) d or 7) 8) 9) 10) 11) LO Cat. -8	This truss ha load of 12.0 overhangs n Building Des verifying Raii requirements this truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar Bearing at jo using ANSI/T designer sho Provide mec bearing plate 2 and 109 lb AD CASE(S)	s been designed for on-concurrent with igner/Project engin in Load = 5.0 (psf) of s specific to the use is been designed for ad nonconcurrent with has been designed mini- net of a specific to the use so y 2-00-00 wide will yo other members. int(s) 9 considers p PI 1 angle to grain uld verify capacity hanical connection a capable of withsta uplift at joint 9. Standard	or great at roof li eer res covers r e of this or a 10. vith any for a liv where l fit betw parallel formul of bear (by oth unding 1	er of min roo oad of 11.5 p ve loads. ponsible for ain loading truss compc 0 psf bottom o ther live loa re load of 20. a rectangle veen the bott to grain value a. Building ing surface. ers) of truss 40 lb uplift a	f live osf on onent. ads. 0psf to to to to to to to		Continue.		SEA 0363	ROLL 22 LBEN	
, de altera												111		

- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.

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May 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	P07	Hip	1	1	Job Reference (optional)	173305338

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:29 Page: 1 ID:HuMGtd_z6sH3hEJP5TLy9QzKcvC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



	5-7-0	10-4-0	15-11-0	
	5-7-0	4-9-0	5-7-0	
Scale = 1:43.5				
Plate Offsets (X, Y): [3:0-3-0,0-2-0], [4:0-3-0,0-2-0]				

Loading TCLL (roof) Snow (Pf/Pg TCDL BCLL BCDL	(psf) 20.0 16.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	5/TPI2014	CSI TC BC WB Matrix-MS	0.51 0.53 0.06	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.05 -0.09 0.02	(loc) 8-11 8-11 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 68 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORE BOT CHORE WEBS BRACING TOP CHORE BOT CHORE	 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood sheat 5-5-0 oc purlins, exc 2-0-0 oc purlins (6-0) Rigid ceiling directly bracing. 	athing directly applie ept -0 max.): 3-4. applied or 10-0-0 oc	4) 5) d or 6) c 7) 8)	Unbalanced design. This truss ha load of 12.0 overhangs n Building Des verifying Rai requirements Provide ader This truss ha	snow loads have as been designed psf or 1.00 times i on-concurrent witt igner/Project engi n Load = 5.0 (psf) s specific to the us quate drainage to as been designed	been cor for great flat roof li h other li ineer res covers r se of this prevent for a 10.	nsidered for t er of min roo bad of 11.5 p ve loads. bonsible for ain loading truss compo water pondin 0 psf bottom	his f live sf on nent. g.					
REACTIONS	 (size) 2=0-5-8, 5 Max Horiz 2=-55 (LC Max Uplift 2=-177 (L0 Max Grav 2=639 (LC 	5=0-5-8 21) C 16), 5=-177 (LC 1 C 39), 5=639 (LC 39)	9) 7)	* This truss I on the bottor 3-06-00 tall I	ad nonconcurrent has been designer m chord in all area by 2-00-00 wide w	with any d for a liv as where vill fit betv	other live loa e load of 20. a rectangle veen the bott	ads. Opsf om					
FORCES	(lb) - Maximum Com Tension 0 1-2=0/30, 2-3=-893/3 4-5=-893/340, 5-6=0	10	 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 177 lb uplift at joint 2 and 177 lb uplift at joint 5. (1) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 177 lb uplift at joint 5. 										
BOT CHORE	2-8=-222/737, 7-8=-2 3-8=0/165, 3-7=-104	222/733, 5-7=-226/7 /105_4-7=-4/165	37	or the orient	ation of the purlin	along the	top and/or	5120					
NOTES 1) Unbalanı this desig 2) Wind: A5 Vasd=10 II; Exp B and C-C 5-8-12, E to 16-9-8 vertical li forces & DOL=1.6 3) TCLL: A ¹	ced roof live loads have gn. SCE 7-10; Vult=130mph I3mph; TCDL=3.0psf; B0 ; Enclosed; MWFRS (en Exterior (2) 0-10-8 to 2: ixterior (2) 5-8-12 to 14- ix zone; cantilever left and eft and right exposed;C-1 MWFRS for reactions st io0 plate grip DOL=1.60 SCE 7-10: Pr=20.0 psf (f	been considered for (3-second gust) CDL=3.0psf; h=25ft; velope) exterior zon -1-8, Interior (1) 2-1- 5-3, Interior (1) 14-5 d right exposed; end C for members and hown; Lumber roof LL: Lum DOL=1	Cat. e 8 to -3 d	DAD CASE(S)	Standard					Annut	Part I	SEA 0363	
Plate DC	DL=1.15); Pg=15.0 psf (g	round snow); Pf=16	.5								11	A GIN	EFERAN

DOL=1.60 plate grip DOL=1.60 TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=16.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0

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G mmm May 8,2025

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	P08	Нір	1	1	Job Reference (optional)	173305339





				7-11-8			1	<u>5-11-0</u>				
Scale = 1:47.7				7-11-0			7110					
Plate Offsets (X, Y): [2:0-2-12,0-1-8	3], [4:0-2-12,0-1-8]										
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	0.13	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.22	6-12	>880	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	5.0				-						Weight: 59 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3		 This truss load of 12 overhangs Building D verifying F 	has been designe 0 psf or 1.00 times non-concurrent w esigner/Project en tain Load = 5.0 (ps	d for great s flat roof le vith other liv gineer res sf) covers r	er of min roo bad of 11.5 p ve loads. bonsible for ain loading	f live osf on					

requirements specific to the use of this truss component.

This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. * This truss has been designed for a live load of 20.0psf

on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom

Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 195 lb uplift at joint

chord and any other members.

2 and 195 lb uplift at joint 4. LOAD CASE(S) Standard

WEBS	2x4 SP N	0.3
BRACING		
TOP CHORD	Structural 2-2-0 oc r	l wood sheathing directly applied or purlins.
BOT CHORD	Rigid ceil bracing.	ing directly applied or 10-0-0 oc
REACTIONS	(size)	2=0-5-8, 4=0-5-8
	Max Horiz	2=-73 (LC 17)
	Max Uplift	2=-195 (LC 16), 4=-195 (LC 17)
	Max Grav	2=610 (LC 2), 4=610 (LC 2)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	
TOP CHORD	1-2=0/23,	2-3=-818/280, 3-4=-818/280,
	4-5=0/23	
BOT CHORD	2-6=-142/	/649, 4-6=-142/649
WEBS	3-6=-4/29	2

NOTES

 Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 7-11-8, Exterior (2) 7-11-8 to 12-2-7, Interior (1) 12-2-7 to 16-9-8 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
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.



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7)

8)

9)



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	P09	Common	1	1	Job Reference (optional)	173305340





Scale = 1:48.2	7	-11-8 -11-8	7-11-8	_
Plate Offsets (X, Y): [2:0-2-12,0-1-8], [4:0-2-12,0-1-8]				

			-										
Loading TCLL (roof) Snow (Pf/Pg)	(psf) 20.0 11.5/15.0	Spacing Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15		CSI TC BC	0.87 0.75	DEFL Vert(LL) Vert(CT)	in 0.14 -0.22	(loc) 6-9 6-12	l/defl >999 >876	L/d 240 180	PLATES MT20	GRIP 244/190
TCDL	10.0	Rep Stress Incr	YES		WB	0.11	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC201	5/TPI2014	Matrix-MS								
BCDL	5.0											Weight: 59 lb	FT = 20%
BCDL LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD WEBS NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103 II; Exp B; E and C-C E 7-11-8, Ex to 16-9-8 z vertical left	5.0 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 2-2-0 oc purlins. Rigid ceiling directly bracing. (size) 2=0-5-8, 4 Max Horiz 2=-74 (LC Max Uplift 2=-195 (LL (db) - Maximum Com Tension 1-2=0/23, 2-3=-812/3 4-5=0/23 2-6=-140/641, 4-6=-3 3-6=-2/293 ed roof live loads have CE 7-10; Vult=130mph mph; TCDL=3.0psf; BK Enclosed; MWFRS (en ixterior (2) -0-10-8 to 2 terrior (2) -0	athing directly applie applied or 10-0-0 oc I=0-5-8 17) C 16), 4=-195 (LC 11 C 2), 4=610 (LC 2) pression/Maximum 262, 3-4=-812/262, 140/641 been considered for (3-second gust) CDL=3.0psf; h=25ft; velope) exterior zon -1-8, Interior (1) 2-1- 11-8, Interior (1) 10- d right exposed ; enc C for members and	5) 6) 6 7) 5 8) 7) 9) LC Cat. 8 8 to 11-8 3	This truss ha load of 12.0 overhangs n Building Des verifying Raii requirements This truss ha chord live loa * This truss th on the bottor 3-06-00 tall b chord and ar Provide mec 2 and 195 lb DAD CASE(S)	s been designed for osf or 1.00 times fit on-concurrent with igner/Project engin n Load = 5.0 (psf) of s specific to the use s been designed fit ad nonconcurrent w has been designed n chord in all areas y 2-00-00 wide will by other members. hanical connection capable of withsta uplift at joint 4. Standard	or great at roof k other liv eer res covers r e of this or a 10.0 vith any for a liv s where I fit betv (by oth anding 1	er of min roof pad of 11.5 pi ve loads. ponsible for ain loading truss compoid of the live load e load of 20.0 a rectangle veen the bottor ers) of truss t 95 lb uplift at	live sf on nent. ds.)psf om ; joint				Weight: 59 lb	FT = 20%
DOL=1.60 3) TCLL: ASC Plate DOL psf (flat roc Category I 4) Unbalance design	plate grip DOL=1.60 CE 7-10; Pr=20.0 psf (=1.15); Pg=15.0 psf (of snow: Lum DOL=1.4 II; Exp B; Partially Exp. ed snow loads have be	roof LL: Lum DOL=1 ground snow); Pf=11. 15 Plate DOL=1.15); ; Ct=1.10 ven considered for thi	.15 .5 is							110.		A. G	EER. KINN

May 8,2025



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PCJ01	Jack-Partial	1	1	Job Reference (optional)	173305341

Run: 8.83 E Jan 17 2025 Print: 8.830 E Jan 17 2025 MiTek Industries, Inc. Wed May 07 16:07:55 ID:OU5YOBuu1HqjqDKWXbTz9lzKrZy-WOHSKqt_HhT37OMFvkDLS3Wff18Kfvc9KC?J2JzIrDJ

Page: 1





0-2-1

Scale = 1:23.6

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15		тс	0.16	Vert(LL)	-0.02	5-8	>999	240	MT20	244/190	
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15		BC	0.18	Vert(CT)	-0.03	5-8	>999	180			
TCDL	10.0	Rep Stress Incr	YES		WB	0.10	Horz(CT)	0.00	5	n/a	n/a			
BCLL	0.0*	Code	IRC201	5/TPI2014	Matrix-MP									
BCDL	5.0											Weight: 22 lb	FT = 20%	
LUMBER			3)	Unbalanced	snow loads have	been cor	sidered for	this						
TOP CHORE	2x4 SP No.2		,	design.										
BOT CHORE	2x4 SP No.2		4)	This truss ha	is been designed	for greate	er of min roo	of live						
WEBS	2x4 SP No.3			load of 12.0	psf or 1.00 times	flat roof lo	ad of 11.5 p	osf on						
BRACING				overhangs n	overhangs non-concurrent with other live loads.									
TOP CHORE	Structural wood she	athing directly applie	edor ⁵⁾	Building Designer/Project engineer responsible for										
	5-5-11 oc purlins.		verifying Rain Load = 5.0 (psf) covers rain loading											
BOT CHORE	CHORD Rigid ceiling directly applied or 10-0-0 oc			requirements	s specific to the u	ise of this	truss compo	onent.						
	bracing.		I his truss ha	is been designed	t tor a 10.0	off per bottom	odo							
REACTIONS	(lb/size) 2=208/0-7	7-6, 4=45/ Mechanica	al, ₇₎	* This trues h	au nonconcurrent	d for a liv	a load of 20	aus. Onef						
	5=98/ Me	chanical	()	on the hottor	n chord in all are	as where	a rectandle	.0031						
	Max Horiz 2=64 (LC	12)		3-06-00 tall b	3-06-00 tall by 2-00-00 wide will fit between the bottom									
	Max Uplift 2=-137 (L	C 12), 4=-39 (LC 12)),	chord and ar	v other members	s.								
	5=-45 (LC			All bearings	are assumed to b	be SP No.	2 crushing							
	Max Grav 2=280 (LC	5 2), 4=63 (LC 2), 5=	=126	capacity of 5	65 psi.		-							
	(LC 2)		9)	Refer to girder(s) for truss to truss connections.										
FORCES	(Ib) - Maximum Con	pression/Maximum	10	 Provide mec 	hanical connection	on (by oth	ers) of truss	to						
		275 2 0 22/6		bearing plate	capable of withs	standing 3	9 lb uplift at	joint						
TOF CHORE	9-1016/0 4-101	275, 5-9=-22/0, 5/11		4, 137 lb upl	ft at joint 2 and 4	15 lb uplift	at joint 5.							
BOT CHORE) 2-11=-321/356 11-1	2=-321/356	11) Hanger(s) or	other connection	n device(s) shall be	~ IL						
201 0110112	5-12=-321/356	2 021/000,		down and 22	licient to support		down and a	D ID D ID						
WEBS	3-5=-369/333			up at 34-9 on to chord and 7 h down and 8 h up at										
NOTES				2-11-10 and	8 lb down and 1	0 lb up at	3-4-9 on bo	ottom				IN'LY CA	ROUL	
1) Wind: AS	SCE 7-10: Vult=130mph	(3-second gust)		chord. The	design/selection	of such co	nnection de	vice			1.5	R		
Vasd=10	3mph; TCDL=3.0psf; B	CDL=3.0psf; h=25ft;	Cat.	(s) is the res	ponsibility of othe	ers.				/	5.	OFESS	Dir Vie	
II; Exp B;	Enclosed; MWFRS (er	velope) exterior zon	e 12) In the LOAD	CASE(S) section	n, loads ap	plied to the	face		4	27		a state	
and C-C	Corner (3) -1-2-14 to 2-	10-11, Exterior (2)		of the truss a	are noted as front	t (F) or ba	ck (B).				-	:0		
2-10-11 t	o 5-4-15 zone; cantilev	er left and right	L	DAD CASE(S)	Standard							054	1 E E	
exposed	; end vertical left and right	ght exposed;C-C for	1)	Dead + Sno	ow (balanced): Lu	umber Inci	rease=1.15,	Plate			1	SEA	L <u>-</u> -	
members	and forces & MWFRS	for reactions shown;		Increase=1	.15					1	:	0363	22 : =	
Lumber [DOL=1.60 plate grip DC	DL=1.60		Uniform Lo	ads (lb/ft)					-	1		: :	
2) TCLL: AS	SCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Vert: 1-2				=-43, 5-6=-10						-		1 2	
Plate DO	'late DOL=1.15); Pg=15.0 pst (ground snow); Pt=11.5				ed Loads (lb)						2.1	N. ENG	-cRik S	
Category II: Exp B: Partially Exp : Ct=1.10: Min. flat roof				Vert: 11=	-4 (B), 12=-5 (F)						31	S, GIN	EF AN	
snow load doverns										1	C .	BEIN		
5110W 10a	oad governs.											1, A. C.	illenn	

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May 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PCJ02	Jack-Partial	2	1	Job Reference (optional)	173305342

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Scale = 1:44.7

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015	5/TPI2014	CSI TC BC WB Matrix-MP	0.14 0.18 0.09	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.02 -0.03 0.00	(loc) 6-9 6-9 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 23 lb	GRIP 244/190 FT = 20))%
LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Wind: ASI Vasd=102 II; Exp B; and C-C C S-4-15 zo vertical lei forces & M DOL=1.60 2) TCLL: AS Plate DOL psf (flat ro Category 3) Unbalanc design.	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 5-5-11 oc purlins. Rigid ceiling directly bracing. (size) 2=0-7-6, 4 Mechanic Max Horiz 2=96 (LC Max Uplift 2=-128 (LI 6=-43 (LC Max Grav 2=275 (LC Max Grav 2=275 (LC (LC 7) (lb) - Maximum Com Tension 1-2=0/25, 2-3=-284// 2-6=-273/264, 5-6=0 3-6=-280/289 CE 7-10; Vult=130mph Bmph; TCDL=3.0psf; BC Enclosed; MWFRS (en- corner (3) -1-2-14 to 3- ine; cantilever left and rif t and right exposed;C-1 MWFRS for reactions sl 0 plate grip DOL=1.60 CE 7-10; Pr=20.0 psf (g of snow: Lum DOL=1.1 II; Exp B; Partially Exp. ed snow loads have be	athing directly applie applied or 10-0-0 oc l= Mechanical, 6= al 12) C 12), 4=-47 (LC 36) 16) C 2), 4=70 (LC 2), 6= pression/Maximum 196, 3-4=-37/18 /0 (3-second gust) CDL=3.0psf; h=25ft; velope) exterior zon 0-1, Exterior (2) 3-0- ight exposed ; end C for members and hown; Lumber roof LL: Lum DOL=1 fround snow); Pf=11. 15 Plate DOL=1.15); ; Ct=1.10 en considered for th	4) 5) d or 6) 7) 123 10 11 LC 1) Cat. e 1 to .15 5	This truss ha load of 12.0 p overhangs nr Building Des verifying Rair requirements This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an Refer to girdd Provide mecl bearing plate 4, 128 lb upli) "NAILED" ind (0.148"x3.25) In the LOAD of the truss a DAD CASE(S) Dead + Snc Increase=1. Uniform Loa Vert: 1-4 Concentrate	s been designed fo osf or 1.00 times fla on-concurrent with of gner/Project engine h Load = 5.0 (psf) c specific to the use s been designed fo d nonconcurrent w as been designed in a chord in all areas y 2-00-00 wide will y other members. er(s) for truss to tru- nanical connection capable of withstai ft at joint 2 and 43 I dicates 3-10d (0.144 ") toe-nails per NDS CASE(S) section, I re noted as front (F Standard w (balanced): Lumi 15 ads (lb/ft) =-43, 5-7=-10 ad Loads (lb) -5 (F=-2, B=-3)	r greatit troof lk tother li eer resj oor this r a 10.1 ith any for a liv where fit betw ss conr (by oth nding 4 b uplift 8"x3") (t 5 g uidil 8"x3") or ba ber Inc	er of min roof bad of 11.5 p re loads. bonsible for ain loading truss compoi) psf bottom other live load e load of 20.1 a rectangle reen the bott ections. ers) of truss i 7 lb uplift at j at joint 6. r 2-12d hes. bylied to the i ck (B).	f live sf on nent. ads. Opsf om to joint face Plate		Manutan		SEA 0363	L L EEER Ay 8,20	25

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PE01	Monopitch Supported Gable	1	1	Job Reference (optional)	173305343

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Scale = 1:32.3

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015/TPI2014	CSI TC BC WB Matrix-MP	0.39 0.40 0.10	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 2	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 32 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 2=8-0-0, ; Max Horiz 2=120 (LI Max Uplift 2=-96 (LC (LC 16) Max Grav 2=250 (LI (LC 2) (lb) - Maximum Con Tension 1-2=0/20, 2-3=-122/ 2-6=-58/76, 5-6=0/0 4-5=-26/39, 3-6=-34	eathing directly applied applied or 10-0-0 oc 5=8-0-0, 6=8-0-0 C 12) C 12), 5=-8 (LC 2), 6= C 2), 5=60 (LC 7), 6= appression/Maximum (61, 3-4=-48/8 14/346	 4) Unbalance design. 5) This truss load of 12 overhang 6) Building I 7) Gable rec 8) Gable stu 9) This truss chord live 412 414 414 415 415 416 417 418 419 410 410 411 412 414 414 415 415 416 417 418 418 419 419 410 410 410 411 412 412 412 412 412 412 414 414 415 415 415 416 417 418 418 419 419 410 410 411 412 412 412 412 412 414 414 415 415 415 416 417 418 418 419 419 419 410 410 410 411 412 412 412 412 412 414 414<	ed snow loads hav has been designe .0 psf or 1.00 times s non-concurrent w Designer/Project en Rain Load = 5.0 (ps ints specific to the uires continuous b ds spaced at 2-0-0 has been designe load nonconcurrer ss has been designe load nonconcurrer ss has been designe load nonconcurrer shas been designe load nonconcurrer shas been designe load nonconcurrer shas been designe load nonconcurrer tom chord in all are all by 2-00-00 wide any other membe techanical connect hat capable of with if at joint 5, 175 lb int 2. (S) Standard	e been coi d for greats flat roof I ith other I gineer res fl) covers I use of this ottom choi oc. d for a 10. tt with any ed for a liv eas where will fit betw rs. ion (by oth istanding § uplift at jo	nsidered for t er of min rooi oad of 11.5 p ve loads. ponsible for rain loading truss compo rd bearing. 0 psf bottom other live loa re load of 20. a rectangle ween the bott ners) of truss 26 lb uplift at int 6 and 96 l	his f live sf on nent. ads. Opsf om to joint b					
NOTES 1) Wind: ASC Vasd=103 II; Exp B; I and C-C C to 7-10-12 vertical lef forces & M	 Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-0-8 to 1-11-8, Exterior (2) 1-11-8 to 7-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber 								4	and a second	ORTH CA	

DOL=1.60 plate grip DOL=1.602) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face),

see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PG01	Half Hip Girder	1	2	Job Reference (optional)	173305344

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		L	3-9-12		8-10-15		14-0-1		-	19	-3-0		
Scale = 1:50.6	i	Ι	3-9-12	1	5-1-3	1	5-1-3		1	5-2	2-15	I	
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 16.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2015	/TPI2014	CSI TC BC WB Matrix-MS	0.36 0.41 0.40	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.13 -0.22 0.03	(loc) 9-10 9-10 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 205 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD	2x4 SP No.2 2x6 SP No.2 2x4 SP No.3 Structural wood she	athing directly applie	4)	Wind: ASCE Vasd=103m II; Exp B; En cantilever let right expose	7-10; Vult=130 ph; TCDL=3.0ps closed; MWFR ft and right expo d; Lumber DOL:	mph (3-sec sf; BCDL=3 S (envelope sed ; end v =1.60 plate	cond gust) .0psf; h=25ft e) exterior zon rertical left ar grip DOL=1.	; Cat. ne; id 60		Vert: 11 18=-17 22=-17 26=-21 30=-21	=-88 (f (F), 19 (F), 23 (F), 27 (F)	F), 14=-19 (F), 1 =-17 (F), 20=-17 =-21 (F), 24=-21 =-21 (F), 28=-21	6=-17 (F), 17=-17 (F), (F), 21=-17 (F), (F), 25=-21 (F), (F), 29=-21 (F),
BOT CHORD	6-0-0 oc purlins, exc 2-0-0 oc purlins (6-0 Rigid ceiling directly bracing.	cept end verticals, and -0 max.): 3-6. applied or 10-0-0 oc	nd 5)	TCLL: ASCE Plate DOL=7 psf (flat roof Category II;	7-10; Pr=20.0 1.15); Pg=15.0 p snow: Lum DOI Exp B; Partially snow loads have	psf (roof LL osf (ground _=1.15 Plat Exp.; Ct=1	: Lum DOL= snow); Pf=10 e DOL=1.15) .10, Lu=50-0	1.15 6.5 ; -0					
REACTIONS	(size) 2=0-5-8, 7 Max Horiz 2=61 (LC Max Uplift 2=-433 (L Max Grav 2=1003 (L	7=0-5-8 9) C 8), 7=-411 (LC 8) _C 2), 7=976 (LC 2)	7)	 design. This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads 									
FORCES	(lb) - Maximum Com Tension 1-2=0/19, 2-3=-2713	pression/Maximum 3/1123, 3-4=-3619/15	8) 537.	Building Des verifying Rai	signer/Project er n Load = 5.0 (ps	ngineer res sf) covers r	consible for ain loading	nent					
BOT CHORD	4-5=-3619/1537, 5-6 2-11=-1058/2560, 10 9-10=-1238/2934, 7- 3-11=-77/315, 3-10= 4-10=-394/222, 5-10	S=-179/92, 6-7=-188/ D-11=-1049/2527, -9=-1238/2934 494/1189, D=-294/706, 5-9=0/2	/103 9) 10) 11) 16,	 Provide adequate drainage to prevent water ponding. Provide adequate drainage to prevent water ponding. This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 								10.	
NOTES 1) 2-ply trus (0.131*x3 Top chord oc. Bottom cl staggered Web com 2) All loads except if 1 CASE(S) provided unless otl 3) Unbalance this desig	5-7=-2840/1195 DTES 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc. Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc. Web connected as follows: 2x4 - 1 row at 0-9-0 oc. 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. Unbalanced roof live loads have been considered for this design.				on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 411 lb uplift at joint 7 and 433 lb uplift at joint 2.) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines. DAD CASE(S) Standard Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (lb/ft) Vert: 1-3=-43, 3-6=-53, 2-7=-10 Concentrated Loads (lb)					C. HILLINS		SEA 0363	EER. HILL AV 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PG02	Hip Girder	1	2	Job Reference (optional)	173305345

Loading

TCDL

BCLL

BCDL

WEBS

BRACING

FORCES

WEBS

NOTES

oc

1)

2)

3)

LUMBER

TCLL (roof)



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PJ01	Jack-Open	1	1	Job Reference (optional)	173305346

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12 4 Г



2x4 =

2-0-7

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Scale = 1:23.9													
Loading	(psf)	Spacing	2-0-0	CSI	-	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	7	>999	240	MT20	244/190	
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	7	>999	180			
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a			
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP									
BCDL	5.0	-									Weight: 8 lb	FT = 20%	
LUMBER TOP CHORD	2x4 SP No.2	5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading											

BOT CHORD	2x4 SP N	0.2
BRACING		
TOP CHORD	Structura	wood sheathing directly applied or
	2-0-7 oc p	ourlins.
BOT CHORD	Rigid ceil	ing directly applied or 10-0-0 oc
	bracing.	
REACTIONS	(size)	2=0-5-8, 3= Mechanical, 4=
		Mechanical
	Max Horiz	2=40 (LC 12)
	Max Uplift	2=-71 (LC 12), 3=-22 (LC 16), 4=-3
		(LC 16)
	Max Grav	2=133 (LC 2), 3=40 (LC 2), 4=25
		(LC 7)
FORCES	(lb) - Max	imum Compression/Maximum

Tension

2-4=-7/23

1-2=0/17, 2-3=-22/10

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior 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

TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15

Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5

psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

Unbalanced snow loads have been considered for this

This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

TOP CHORD

BOT CHORD

NOTES

2)

3)

4)

design.

This truss has been designed for a 10.0 psf bottom 6)

chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf 7)
- on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections. 8)
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 3, 71 lb uplift at joint 2 and 3 lb uplift at joint 4.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PJ02	Jack-Open	1	1	Job Reference (optional)	173305347

Run; 9.13 S 8.83 Apr 24 2025 Print; 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:31 Page: 1 ID:dxcWjSotwqqrt?jz3vK5q4zKra4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







2-3-15



Scale - 1.24 1

Loading	(psf)	Spacing	2-0-0		CSI	0.05	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
Snow (Pf/Pg) TCDL	11.5/15.0 10.0	Lumber DOL Rep Stress Incr	1.15 1.15 YES	5/TPI2014	BC WB Matrix-MP	0.03 0.04 0.00	Vert(CT) Horz(CT)	0.00 0.00	4-7 4-7 3	>999 >999 n/a	180 n/a	WT20	244/190	
BCDL	5.0	Code	11(0201	5/11/2014	WIGUIX-IVII							Weight: 9 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 Structural wood she 2-3-15 oc purlins.	athing directly applied	5) 6) or 7)	Building Des verifying Rai requirement This truss ha chord live lo * This truss I	signer/Project en in Load = 5.0 (ps s specific to the as been designer ad nonconcurrer has been design	gineer resp f) covers r use of this d for a 10.0 nt with any ed for a liv	consible for ain loading truss compo 0 psf bottom other live loa e load of 20.	nent. ads. 0psf						
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc		on the botto	m chord in all are	eas where	a rectangle							

bracing.	
(size)	2=0-5-8, 3= Mechanical, 4=
	Mechanical
Max Horiz	2=44 (LC 12)
	(size) Max Horiz

- Max Uplift 2=-73 (LC 12), 3=-27 (LC 16), 4=-3 (LC 16) 2=142 (LC 2), 3=48 (LC 2), 4=30 Max Grav (LC 7) (lb) - Maximum Compression/Maximum
- FORCES Tension TOP CHORD 1-2=0/17, 2-3=-26/13
- BOT CHORD 2-4=-12/28

NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

- 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. Refer to girder(s) for truss to truss connections. 8)
- Provide mechanical connection (by others) of truss to 9) bearing plate capable of withstanding 27 lb uplift at joint 3, 73 lb uplift at joint 2 and 3 lb uplift at joint 4.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PJ03	Jack-Open	8	1	Job Reference (optional)	173305348

-0-10-8 3-11-80-10-8 4^{12} 4^{12} 9 9 10^{3} 9 10^{3} 9 10^{3}

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4

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Page: 1



1-11-0

2=195 (LC 2), 3=94 (LC 2), 4=54



3-11-8

Scale	_	1.25	Λ

FORCES

NOTES

2)

3)

4)

design.

TOP CHORD

BOT CHORD

Max Grav

Tension

2-4=-52/57

DOL=1.60 plate grip DOL=1.60

(LC 7)

1-2=0/17, 2-3=-57/24

 Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber

Category II; Exp B; Partially Exp.; Ct=1.10 Unbalanced snow loads have been considered for this

TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15

Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15);

This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

(lb) - Maximum Compression/Maximum

Loading FCLL (roof) Snow (Pf/Pg) FCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015	5/TPI2014	CSI TC BC WB Matrix-MP	0.18 0.16 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.01 -0.02 0.00	(loc) 4-7 4-7 2	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 14 lb	GRIP 244/190 FT = 20%	
LUMBER FOP CHORD 30T CHORD BRACING FOP CHORD 30T CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 Structural wood s 3-11-8 oc purlins. Rigid ceiling direc bracing. (size) 2=1-5-{ Mechai Max Horiz 2=65 (L Max Uplift 2=68 ((LC 16)	heathing directly applied tly applied or 10-0-0 oc 8, 3= Mechanical, 4= nical C 12) LC 12), 3=-54 (LC 16), 4	5) 6) or 7) 8) 9) =-4	Building Des verifying Rain requirements This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar Refer to girdd Provide mec bearing plate 3, 88 lb uplift	igner/Project eng in Load = 5.0 (psi s specific to the L s been designed ad nonconcurren nas been designed na chard in all are by 2-00-00 wide y other member er(s) for truss to hanical connectiv capable of with at joint 2 and 4	gineer resp f) covers r ise of this I for a 10.0 t with any ed for a liv as where will fit betw s. truss com on (by othe standing 5 b uplift at	oonsible for ain loading truss compo) psf bottom other live loa e load of 20. a rectangle veen the bott nections. ers) of truss 4 lb uplift at joint 4.	nent. ads. Opsf om to joint						

LOAD CASE(S) Standard





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818 Soundside Road Edenton, NC 27932 111111111

Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PJ05	Jack-Open	2	1	Job Reference (optional)	173305349

Run; 9.13 S 8.83 Apr 24 2025 Print; 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:32 Page: 1 ID:zksLioHam2zIkKtGiHIMpBzKcw6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale	- '	1.25

NOTES

2)

3)

4)

design.

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	7	>999	240	MT20	244/190
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	5.0										Weight: 7 lb	FT = 20%

1-9-7

IOP CHORD	2X4 3P IN	0.2
BOT CHORD	2x4 SP N	0.2
BRACING		
TOP CHORD	Structura	wood sheathing directly applied or
	1-9-7 oc p	ourlins.
BOT CHORD	Rigid ceil	ing directly applied or 10-0-0 oc
	bracing.	
REACTIONS	(size)	2=0-5-8, 3= Mechanical, 4=
		Mechanical
	Max Horiz	2=49 (LC 16)
	Max Uplift	2=-45 (LC 16), 3=-24 (LC 16), 4=-1 (LC 16)
	Max Grav	2=128 (LC 2), 3=36 (LC 2), 4=23
		(LC 7)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	
TOP CHORD	1-2=0/23,	2-3=-30/14
BOT CHORD	2-4=-10/1	7

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right

Lumber DOL=1.60 plate grip DOL=1.60

exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown;

TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5

psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

Unbalanced snow loads have been considered for this

This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf 7)
- on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2, 1 lb uplift at joint 4 and 24 lb uplift at joint 3.

LOAD CASE(S) Standard



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Michael Component Advancing Component Advancing Component Advancing and PCB and Component Advancing Component Compone and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PJ06	Jack-Open	1	1	Job Reference (optional)	173305350

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. . . . So

g 2-0-0	CSI								
			DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
irip DOL 1.15	TC	0.05	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
r DOL 1.15	BC	0.02	Vert(CT)	0.00	4-7	>999	180		
ress Incr YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
IRC2015/TPI201	4 Matrix-MP								
								Weight: 8 lb	FT = 20%
5) Buildin verifyir	g Designer/Project en ng Rain Load = 5.0 (ps	ngineer resp sf) covers r	consible for ain loading	oont					
i r	rip DOL 1.15 DOL 1.15 ress Incr YES IRC2015/TPI201 5) Buildin verifyir require	rip DOL 1.15 TC DOL 1.15 BC vess Incr YES WB IRC2015/TPI2014 Matrix-MP 5) Building Designer/Project er verifying Rain Load = 5.0 (p requirements specific to the	rip DOL 1.15 TC 0.05 DOL 1.15 BC 0.02 WB 0.00 Matrix-MP 5) Building Designer/Project engineer resp verifying Rain Load = 5.0 (psf) covers r requirements specific to the use of this	rip DOL 1.15 TC 0.05 Vert(LL) DOL 1.15 BC 0.02 Vert(CT) ress Incr YES WB 0.00 Matrix-MP Horz(CT) S) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss compored	rip DOL 1.15 TC 0.05 Vert(LL) 0.00 DOL 1.15 BC 0.02 Vert(CT) 0.00 Vert(CT) 0.00 WB 0.00 Horz(CT) 0.00 Matrix-MP 5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.	rip DOL 1.15 TC 0.05 Vert(LL) 0.00 4-7 DOL 1.15 BC 0.02 Vert(CT) 0.00 4-7 ress Incr YES WB 0.00 Matrix-MP Horz(CT) 0.00 3 IRC2015/TPI2014 S5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.	rip DOL 1.15 TC 0.05 Vert(LL) 0.00 4-7 >999 DOL 1.15 BC 0.02 Vert(CT) 0.00 4-7 >999 ress Incr YES WB 0.00 Horz(CT) 0.00 3 n/a IRC2015/TPI2014 Matrix-MP Matrix-MP	rip DOL 1.15 TC 0.05 Vert(LL) 0.00 4-7 >999 240 DOL 1.15 BC 0.02 Vert(CT) 0.00 4-7 >999 180 ress Incr YES WB 0.00 Horz(CT) 0.00 3 n/a n/a IRC2015/TPI2014 Matrix-MP Matrix-MP 5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component. 5	rip DOL 1.15 TC 0.05 Vert(LL) 0.00 4-7 >999 240 MT20 DOL 1.15 BC 0.02 Vert(CT) 0.00 4-7 >999 180 ress Incr YES WB 0.00 Horz(CT) 0.00 3 n/a n/a IRC2015/TPI2014 Matrix-MP Matrix-CT) 0.00 3 n/a n/a Weight: 8 lb 5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component. Weight: 8 lb Verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.

1-10-7

BOT CHORD	2x4 SP N	0.2
BRACING		
TOP CHORD	Structural	wood sheathing directly applied or
	1-10-7 oc	purlins.
BOT CHORD	Rigid ceili	ing directly applied or 10-0-0 oc
	bracing.	
REACTIONS	(size)	2=0-5-8, 3= Mechanical, 4=
		Mechanical
	Max Horiz	2=50 (LC 16)
	Max Uplift	2=-46 (LC 16), 3=-26 (LC 16), 4=-2
		(LC 16)
	Max Grav	2=130 (LC 2), 3=39 (LC 2), 4=24
		(LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-2=0/23, 2-3=-30/14

BOT CHORD 2-4=-10/18

NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf 7) on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom
- chord and any other members.
- Refer to girder(s) for truss to truss connections. 8)
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 2, 2 lb uplift at joint 4 and 26 lb uplift at joint 3.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PJ07	Jack-Open	4	1	Job Reference (optional)	173305351

Run; 9.13 S 8.83 Apr 24 2025 Print; 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:32

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Page: 1

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334.

-0-10-8 3-11-8 3-11-8 0-10-8 3-11-8 12 6 Г 10 9 2-3-15 2-8-15 2 8 9-4-3 4 2x4 =

5

TOP CHORD

BOT CHORD

NOTES

2)

3)

4)

design.

Scale = 1:27.5														
Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15		тс	0.19	Vert(LL)	0.01	4-7	>999	240	MT20	244/190	
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15		BC	0.15	Vert(CT)	-0.02	4-7	>999	180			
TCDL	10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	3	n/a	n/a			
BCLL	0.0*	Code	IRC2015	/TPI2014	Matrix-MP									
BCDL	5.0											Weight: 14 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 Structural wood shea 3-11-8 oc purlins. Rigid ceiling directly bracing.	athing directly applie applied or 10-0-0 oc	5) 6) d or 7)	Building Des verifying Rai requirements This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b	igner/Project en n Load = 5.0 (ps s specific to the is been designe ad nonconcurrer has been design n chord in all ar by 2-00-00 wide	ngineer resp sf) covers r use of this d for a 10.0 nt with any led for a liv eas where will fit betw	consible for ain loading truss compo) psf bottom other live loa e load of 20. a rectangle yeen the bott	nent. ads. Opsf						

3-11-8

- **REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= 8) Mechanical 9) Max Horiz 2=90 (LC 16)
- Max Uplift 2=-59 (LC 16), 3=-64 (LC 16), 4=-4 (LC 16) 2=195 (LC 2), 3=96 (LC 2), 4=55 Max Grav (LC 7) FORCES (lb) - Maximum Compression/Maximum Tension

1-2=0/23, 2-3=-55/34

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber

Category II; Exp B; Partially Exp.; Ct=1.10 Unbalanced snow loads have been considered for this

TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15

This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15);

2-4=-47/45

DOL=1.60 plate grip DOL=1.60

- chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 3, 59 lb uplift at joint 2 and 4 lb uplift at joint 4.

LOAD CASE(S) Standard

SEAL 036322 G mmm May 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity				
P02236-24939	PJ08	Jack-Open	1	1	Job Reference (optional)	173305352			

ID:RwPjv8HCXL58LTSSF?pbMOzKcw5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f -0-10-8 3-8-15 3-8-15 0-10-8 3-8-15

3-8-15

Run; 9.13 S 8.83 Apr 24 2025 Print; 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:32

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Scale - 1.27.2

Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.17	Vert(LL)	0.01	4-7	>999	240	MT20	244/190	
Snow (Pf/Pg)	11.5	5/15.0	Lumber DOL	1.15		BC	0.13	Vert(CT)	-0.01	4-7	>999	180			
TCDL		10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	3	n/a	n/a			
BCLL		0.0*	Code	IRC201	5/TPI2014	Matrix-MP									
BCDL		5.0											Weight: 13 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 Structural wood sheathing directly applied o 3-8-15 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.			5 6 d or 7	 Building Desverifying Rarequirement This truss has chord live lo * This truss on the botto 3-06-00 tall 	signer/Project er in Load = 5.0 (p s specific to the as been designe ad nonconcurre has been desigr m chord in all ar by 2-00-00 wide	ngineer res sf) covers r use of this ed for a 10.0 nt with any ned for a liv reas where will fit betw	consible for ain loading truss compo 0 psf bottom other live loa e load of 20.1 a rectangle veen the bott	nent. ads. Opsf om						
REACTIONS	(size) 2 Max Horiz 2	bracing. size) 2=0-5-8, 3= Mechanical, 4= Mechanical Max Horiz 2=86 (LC 16) Max Unit = 2 = 84 (LC 16)			 chord and any other members. 8) Refer to girder(s) for truss to truss connections. 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 										

Max Uplift 2=-58 (LC 16), 3=-60 (LC 16), 4=-4 3, 58 lb uplift at joint 2 and 4 lb uplift at joint 4. (LC 16) LOAD CASE(S) Standard 2=188 (LC 2), 3=90 (LC 2), 4=52 Max Grav (LC 7)

2-7-10

FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-2=0/23, 2-3=-52/32

2-4=-39/42 BOT CHORD

NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-8-3 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this 3) design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

\cap VIIIIII SEAL 036322 G mm May 8,2025

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Job	Truss	Truss Type	Qty	Ply	1037 Serenity				
P02236-24939	PJ09	Jack-Open	1	1	Job Reference (optional)	173305353			

Run; 9.13 S 8.83 Apr 24 2025 Print; 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:32 Page: 1 ID:zksLioHam2zIkKtGiHIMpBzKcw6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-2-10







1-7-10



1-8-15

TOP CHORD

BOT CHORD

NOTES

2)

3)

4)

design.

Scale = 1:24.9					1	I						
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	тс	0.05	Vert(LL)	0.00	7	>999	240	MT20	244/190
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	5.0	-									Weight: 7 lb	FT = 20%
LUMBER TOP CHORD	2x4 SP No.2		5) Building De verifying R	esigner/Project er ain Load = 5.0 (p	ngineer resj sf) covers r	oonsible for ain loading						

BOT CHORD	2x4 SP N	0.2
BRACING		
TOP CHORD	Structural	wood sheathing directly applied or
	1-8-15 oc	purlins.
BOT CHORD	Rigid ceili	ing directly applied or 10-0-0 oc
	bracing.	
REACTIONS	(size)	2=0-5-8, 3= Mechanical, 4=
		Mechanical
	Max Horiz	2=48 (LC 16)
	Max Uplift	2=-45 (LC 16), 3=-23 (LC 16), 4=-1
		(LC 16)
	Max Grav	2=126 (LC 2), 3=35 (LC 2), 4=22
		(LC 7)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	

1-2=0/23, 2-3=-29/13

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat.

Lumber DOL=1.60 plate grip DOL=1.60

II; Exp B; Enclosed; MWFRS (envelope) exterior 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;

TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15

Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.5

psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

Unbalanced snow loads have been considered for this

This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

2-4=-10/17

5.0 (pst) cov requirements specific to the use of this truss component.

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

- 7) * This truss has been designed for a live load of 20.0psf
- on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections. 8)
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2, 1 lb uplift at joint 4 and 23 lb uplift at joint 3.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	1037 Serenity	
P02236-24939	PSE01	Common Structural Gable	1	1	Job Reference (optional)	173305354

Run: 9.13 S 8.83 Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Wed May 07 10:44:32 Page: 1 ID:ItVdeRAN3rBgYWQtIsNqS6zKrYI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.3

Plate Offsets (X, Y): [8:Edge,0-6-6], [10:Edge,0-6-6], [12:0-0-0,Edge]

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 10.0 0.0* 5.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2015	5/TPI2014	CSI TC BC WB Matrix-MS	0.16 0.09 0.14	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 8-9 8-9 8	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 49 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING BOT CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 8=7-5-0, 9 Max Horiz 10=-117 (Max Uplift 8=-60 (LC 10=-58 (L Max Grav 8=190 (LC 10=-109 (L (lb) - Maximum Com Tension 1-2=0/39, 2-3=-79/3 4-5=-36/56, 5-6=-76, 2-10=-174/116, 6-8= 9-10=-104/137, 8-9= 9-160/55, 2-11= 9-12=-122/128, 6-12 5-12=-58/46	athing directly applied cept end verticals. applied or 10-0-0 oc 39=7-5-0, 10=7-5-0 LC 12) : 15), 9=-73 (LC 14), C 14) C 31), 9=245 (LC 2), C 30) pression/Maximum 0, 3-4=-36/57, /26, 6-7=0/39, -174/116 -33/113 111/120, 9-11=-120// 2=-114/121, 3-11=-57	3) 4) d or 5) 6) 7) 8) 9) 10) 128, 11)	Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 psf (flat roof : Category II; I This truss ha load of 12.0 ; overhangs n Building Des verifying Rain requirements Truss to be fi braced again Gable studs This truss ha chord live loa) * This truss h on the bottom 3-06-00 tall b chord and ar) Provide mecl bearing plate 10, 60 lb upli	ed for wind loads i dis exposed to wind d Industry Gable Ei alified building des 7-10; Pr=20.0 psf .15); Pg=15.0 psf snow: Lum DOL=1 Exp B; Partially Exj s been designed for pon-concurrent with igner/Project engir in Load = 5.0 (psf) s specific to the use ully sheathed from statateral moveme spaced at 2-0-0 oc s been designed fad nonconcurrent v has been designed n chord in all areas by 2-00-00 wide will y other members. hanical connection c capable of withstat ft at joint 8 and 73	n the pla d (norm and Deta signer as (roof LL (ground .15 Plat p.; Ct=1 or great at roof lc other lin eeer resp covers r e of this or a 10.0 vith any for a 10.0 vith any for a 10.0 s where I fit betw (by oth anding 5 lb uplift	ane of the tru: ane of the face; ane of the face; ils as applical per ANSI/TF snow); Pf=11 e DOL=1.15) 10 er of min roof pad of 11.5 p; ve loads. consible for ain loading truss compor e or securely iagonal web) 0 psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 8 lb uplift at j at joint 9.	ss), ble, PI 1. 1.15 1.5 ; live sf on nent.			and the second se	TH CA	ROUTIN	
NOTES 1) Unbalance this design	ed roof live loads have	been considered for	LO	AD CASE(S)	Standard					2		SEA	1 MA	

Wind: ASCE 7-10; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-8-8, Exterior (2) 3-8-8 to 6-8-8, Interior (1) 6-8-8 to 8-3-8 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



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