

Trenco 818 Soundside Rd Edenton, NC 27932

Re: P02235-24938 999 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: I73085216 thru I73085234

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

North Carolina COA: C-0844



April 30,2025

**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		Ply	999 Serenity		
P02235-24938	A01E	Common Supported Gable	1	1	Job Reference (optional)	173085216	

#### Run: 8.83 S Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Tue Apr 29 16:39:26 ID:C4B2Oxr2QHrNS08O3\_2k7XzMCJZ-?GuO??E3bsRj?SArTMOYoQ1imQ9nzSFkYL3wxXzLobl





#### Scale = 1:87.6 Plate Offsets (X, Y): [2:0-3-8,Edge], [2:Edge.0-1-8], [3:0-5-0.0-1-13]

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<b>Loading</b> TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	11.5/	(psf) 20.0 (15.0 7.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	C T B V M	CSI C 3C VB Matrix-MS	0.12 0.06 0.08	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 35	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 327 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Left 2x4 SP No Structural wo 6-0-0 oc purli Rigid ceiling y bracing, Exc 10-0-0 oc bra 1 Row at mid (lb/size) 2= 36 38 40 42 45 47 49 51 53 56 58 60 62	No.3 1 pod shee ins, exc directly cept: acing: 2- ipt acing: acing:	-5-7 athing directly applied sept end verticals. applied or 6-0-0 oc 63. 18-49, 17-50, 16-51, 19-48, 20-47 8-0, 35=84/36-8-0, 8-0, 39=76/36-8-0, 8-0, 44=76/36-8-0, 8-0, 44=76/36-8-0, 8-0, 52=76/36-8-0, 8-0, 52=76/36-8-0, 8-0, 59=76/36-8-0, 8-0, 61=76/36-8-0, 8-0, 63=64/36-8-0	d or	Max Max	Uplift 2=-53 36=-11 38=-45 40=-42 42=-42 45=-42 47=-52 50=-23 52=-42 54=-42 63=-40 63=-40 63=-40 63=-40 63=-40 63=-40 40=99 42=99 45=99 45=99 45=99 45=99 58=99 56=99 58=99 60=99 58=99 60=99 58=99 60=99 58=99 60=99 58=99 60=99 58=99 60=99 58=99 60=99 58=99 5	(LC 12), 3 3 (LC 17), 3 (LC 17), (LC 16), (LC 27), 3, (LC 37), (LC	55=-5 (LC 13) , $37=-27$ (LC 39=-41 (LC 1 41=-42 (LC 1 44=-42 (LC 1 44=-42 (LC 1 44=-42 (LC 1 51=-49 (LC 1 53=-42 (LC 1 55=-42 (LC 1 60=-42 (LC 1 60=-42 (LC 1 60=-42 (LC 1 60=-42 (LC 1 60=-42 (LC 1 60=-42 (LC 2) , $37=99$ (LC 2), 39=99 (LC 2), 44=99 (LC 2), 59=99 (LC 2), 44=99 (LC 2), 57=99 (LC 2), 57=99 (LC 2), 57=99 (LC 2), 57=99 (LC 2), 59=99 (LC 2), 57=99 (LC 2), 59=99 (LC 2), 53=99 (LC 2), 53=99 (LC 2), 53=99 (LC 2), 53=99 (LC 2), 53=99 (LC 2), 53=99 (LC 3), 53=79 (LC 3),	, 17), 7), 7), 7), 7), 7), 6), 6), 6), 6), 6), 6), 6), 6), 24), 23),	TOP CH	IORD	1-2=0/ 4-64=- 6-7=-1 9-10=- 12-13; 14-15- 16-65: 17-18: 19-20: 22-23: 24-25: 27-28: 30-31: 33-34:	18, 2-3=-172/94 150/90, 5-64=-1 08/120, 7-8=-94 85/151, 10-11=- =80/198, 13-11 =-101/229, 15-65 =-104/244, 16-17 =-128/266, 18-19 =-124/246, 20-66 =-112/210, 21-22 =-91/161, 23-24= =-70/118, 25-26= =-31/54, 28-29=- =-30/26, 31-32=- =0/18, 33-35=-10	3-4=-153/85 49/97, 5-6=-' (133, 8-9=-88 76/167, 11-1: 91/213, =-112/240, '=-122/263, =-128/261, =-101/187, 80/140, 59/97, 26-2 38/51, 29-30 35/21, 32-33 17/44	9, 128/105, 8/135, 2=-70/182, 7=-49/75, =-28/32, =-70/37,
	iviax noriz 2=	150 (LC	, 20)		Ter	nsion					=		286	7	



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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 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 ouclings 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/TPI Quality Criteria and DSE2** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbaccomponents.com)

Job	Truss	Truss Type	Qty	Ply	999 Serenity			
P02235-24938	A01E	Common Supported Gable	1	1	Job Reference (optional)	173085216		

Run: 8.83 S. Feb. 1 2025 Print: 8.830 S. Feb. 1 2025 MiTek Industries. Inc. Tue Apr 29 16:39:26

ID:C4B2Oxr2QHrNS08O3\_2k7XzMCJZ-?GuO??E3bsRj?SArTMOYoQ1imQ9nzSFkYL3wxXzLobl

Page: 2

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

2-63=-38/69. 62-63=-40/70. 61-62=-40/70. BOT CHORD 60-61=-40/70, 59-60=-40/70, 58-59=-40/70, 57-58=-40/70, 56-57=-40/70, 55-56=-40/70, 54-55=-40/70, 53-54=-40/70, 52-53=-40/70, 51-52=-40/70, 50-51=-40/70, 49-50=-40/70, 48-49=-40/70, 47-48=-40/70, 46-47=-40/70, 45-46=-40/70, 44-45=-40/70, 43-44=-40/70, 42-43=-40/70, 41-42=-40/70, 40-41=-40/70, 39-40=-40/70, 38-39=-40/70, 37-38=-40/70, 36-37=-40/70 35-36=-40/70 WEBS 12-56=-72/50, 11-57=-72/50, 10-58=-72/50, 9-59=-72/50, 7-60=-72/50, 6-61=-72/50, 5-62=-73/49, 3-63=-54/45, 24-42=-72/50, 25-41=-72/50, 26-40=-72/50, 27-39=-72/50, 29-38=-73/50, 30-37=-72/44, 32-36=-50/82, 18-49=-175/60, 17-50=-86/33, 16-51=-85/64, 15-52=-72/50, 14-53=-72/50, 13-54=-72/50, 19-48=-86/28, 20-47=-85/65, 21-46=-72/50,

#### NOTES

 Unbalanced roof live loads have been considered for this design.

22-45=-72/50, 23-44=-72/50

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-9-8, Interior (1) 2-9-8 to 19-4-0, Exterior(2R) 19-4-0 to 23-0-0, Interior (1) 23-0-0 to 37-6-8 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.5 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 8) All plates are 2x4 (||) MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) \* 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 35, 53 lb uplift at joint 2, 42 lb uplift at joint 56, 42 lb uplift at joint 57, 42 lb uplift at joint 58, 42 lb uplift at joint 62, 40 lb uplift at joint 63, 42 lb uplift at joint 62, 40 lb uplift at joint 63, 42 lb uplift at joint 42, 42 lb uplift at joint 40, 41 lb uplift at joint 39, 45 lb uplift at joint 52, 42 lb uplift at joint 51, 42 lb uplift at joint 50, 42 lb uplift at joint 51, 42 lb uplift at joint 50, 49 lb uplift at joint 36, 23 lb uplift at joint 50, 49 lb uplift at joint 51, 42 lb uplift at joint 52, 42 lb uplift at joint 53, 42 lb uplift at joint 51, 42 lb uplift at joint 52, 42 lb uplift at joint 53, 42 lb uplift at joint 57, 42 lb uplift at joint 54, 13 lb uplift at joint 48, 52 lb uplift at joint 47, 42 lb uplift at joint 46, 42 lb uplift at joint 45 and 42 lb uplift at joint 44.
- 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	A02	Common	4	1	Job Reference (optional)	173085217

Run: 8.83 S. Apr 11 2025 Print: 8.830 S. Apr 11 2025 MiTek Industries. Inc. Mon Apr 28 16:23:47 ID:Dxmkh43Xqi2gamH8XtGkpRzMCAE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	A03	Common	1	1	Job Reference (optional)	173085218

Run: 8.83 E Feb 1 2025 Print: 8.830 E Feb 1 2025 MiTek Industries, Inc. Tue Apr 29 16:39:39 ID:fmm\_7rZN4J7IwacwArTGi4zMC7?-7mAJjSOCXr4t3SfLjb7bqA3lufOEWDieXti6vHzLobY





			9-9-12		19-4-0		28-10-4	1		36-3-12		38-8-0	
Scale = 1:100.2	2	ſ	9-9-12	1	9-6-4	1	9-6-4		1	7-5-8		2-4-4	
Plate Offsets (	(X, Y): [2:0-3-9,0-0-1],	[13:0-4-1,Edge]											
Loading TCLL (roof) Snow (Pf/Pg) TCDL	(psf) 20.0 11.5/15.0 7.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES		CSI TC BC WB	0.80 0.86 0.58	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.29 -0.47 0.09	(loc) 18-20 18-20 15	l/defl >999 >918 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 244/190
BCDL	0.0* 10.0	Code	IRC2018	3/TPI2014	Matrix-MS							Weight: 216 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.1 2x4 SP No.3 Left 2x4 SP No.3 1-6-0 Structural wood she 2-2-0 oc purlins. Rigid ceiling directly bracing. 1 Row at midpt (lb/size) 2=1051/0 15=1408/ Max Horiz 2=160 (LC Max Uplift 2=-335 (L 5=-409 ( Max Grav 2=1498 (L 15=2036	1-6-0, Right 2x4 SP athing directly appli applied or 6-0-0 oc 6-18, 8-18, 10-15 -6-0, 13=-186/2-6-0 2-6-0 2-20) C 16), 13=-293 (LC LC 17) -C 3), 13=63 (LC 16 (LC 3)	W No.3 (1) ed or 2) ; (, ; (, ; (, ; (, ; (, ; (, ; (, ; (	Unbalance this design Wind: ASC Vasd=1037 II; Exp 8; E and C-C E: 2-11-14 to (1) 23-2-6 t exposed ; e members a Lumber DC TCLL: ASC Plate DOL=	7-18=-221/1105, 6-20=-103/560, 4 8-18=-383/246, 8 10-16=-13/429, 1 11-15=-245/138 d roof live loads ha E 7-16; Vult=130n mph; TCDL=4.2ps inclosed; MWFRS sterior(2E) -0-10-8 19-4-0, Exterior(21 to 39-6-8 zone; ca end vertical left an und forces & MWF DL=1.60 plate grip E 7-16; Pr=20.0 p =1.15); Pg=15.0 pp DCl = 145 / lp=1	6-18=-66 1-20=-274 3-16=-61/' 10-15=-23 ave been nph (3-see f; BCDL=2 (envelop to 2-11-1 R) 19-4-0 ntilever le d right exx RS for rea DCL=1.6 isf (roof LI sf; Pf=11.9 0' Rourb	0/312, 2/205, 23, 80/462, considered for cond gust) .0psf; h=25ft b) exterior zo b) exterior zo to 23-2-6, Int it and right to 23-2-6, Int it and right to 23-2-6 for cictions showr D .: Lum DOL= 5 psf (Lum D' Cat P: Partic	or t; Cat. ne ) terior r n; t1.15 OL =	10) Pro bea 2, 2 lb u 11) This Inte R80 LOAD (	vide mec rring plate 193 lb upli plift at joi s truss is rmational 22.10.2 a CASE(S)	hanica e capa ift at jc nt 13. design Resic Nd refe	al connection (by ble of withstandin int 13, 409 lb up ned in accordanc lential Code sect erenced standarc ndard	others) of truss to 1g 335 lb uplift at joint ift at joint 15 and 293 e with the 2018 ons R502.11.1 and ANSI/TPI 1.
FORCES TOP CHORD BOT CHORD	(lb) - Maximum Com Tension 1-2=0/21, 2-3=-1317 4-29=-2415/548, 4-5 5-6=-2310/518, 6-30 30-31=-1533/417, 7 7-32=-1513/430, 32- 8-33=-1582/409, 8-5 9-10=-1817/387, 10- 11-34=-89/525, 11-1 12-13=-36/280, 13-1 2-20=-560/2164, 19- 19-35=-379/1794, 11 18-36=-221/1562, 11 16-17=-221/1562, 11 13-15=-500/151	Ipression/Maximum 7/53, 3-29=-2479/52 5=-2318/493, )=-1582/410, -31=-1513/431, -33=-1533/416, )=-1809/412, -34=-75/599, 12=-133/618, 14=0/21 -20=-379/1794, 8-35=-379/1794, 7-36=-221/1562, 5-16=-209/1298,	28, 4) 5) 6) 7) 8) 9)	Exp.; Ce=1 Unbalance design. This truss H load of 12.0 overhangs Building De verifying R: requiremer This truss H chord live H * This truss on the bott 3-06-00 tal chord and a All bearing: capacity of	DOLE 1.10), (351 1.0); (551-100); (5151 d snow loads have nas been designed 0 psf or 1.00 times non-concurrent wi ssigner/Project eng ain Load = 5.0 (ps ths specific to the to as been designed oad nonconcurren s has been designed om chord in all are l by 2-00-00 wide ' any other member s are assumed to 1 565 psi.	10 a been could for great flat roof I gineer res f) covers i use of this d for a 10. t with any ed for a live as where will fit bett s, with BC be SP No	asidered for t er of min rooi bad of 11.5 p ve loads. ponsible for ain loading truss compo 0 psf bottom other live los e load of 20. a rectangle veen the bott CDL = 10.0ps 2 crushing	this f live osf on onent. ads. Opsf tom		Contraction of the	and a second second	SEA 2867	ROLL 7 E.R. Stummer

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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	A04	Common	2	1	Job Reference (optional)	173085219

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:48 ID:c3f9BQ9ITfqNror1H2fwX6zMBu1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





		H	9-9-12		19-4-0		28-10-4	4	_	38	-8-0		
Scale = 1:97.5			9-9-12	ı	9-6-4		9-6-4		•	9-9	9-12	'	
Plate Offsets	(X, Y): [2:0-3-8,Edge],	[12:0-4-1,Edge]											
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 7.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MS	0.96 0.90 0.47	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.35 -0.57 0.13	(loc) 14-16 14-16 12	l/defl >999 >814 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 206 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.1 2x4 SP No.2 *Excep No.3 Left 2x4 SP No.3 1 1-6-0 Structural wood she Rigid ceiling directly bracing. 1 Row at midpt (size) 2=0-6-0, 1 Max Horiz 2=160 (LC Max Uplift 2=-354 (LC Max Uplift 2=-354 (LC	t* 14-10,18-4:2x4 1-6-0, Right 2x4 Si athing directly app applied or 8-1-14 6-16, 8-16 12=0-6-0 C 20) C 16), 12=-354 (Li	2) SP P No.3 lied. 3) oc 3) 4) C 17) 5)	Wind: ASCE Vasd=103m II; Exp B; En and C-C Ext (1) 23-2-6 to exposed ; er members an Lumber DOL=1 TCLL: ASCE Plate DOL=1 1.15 Plate D Exp.; Ce=1.0 Unbalanced design. This truss ha	7-16; Vult=130r b; TCDL=4.2ps closed; MWFRS erior(2E) -0-10-£ 9-4-0, Exterior(2 39-6-8 zone; ca d vertical left an d forces & MWF =1.60 plate grip 7-16; Pr=20.0 g .15); Pg=15.0 p OL = 1.15); Is=1 ); Cs=1.00; Ct=1 snow loads have the been designed	mph (3-sec f; BCDL=3 6 (envelope 3 to 2-11-1- R) 19-4-0 t R) 19-4-0 t RS for rea DOL=1.60 osf (roof LL sf; Pf=11.5 .0; Rough .10 e been cor	orond gust) .0psf; h=25ft exterior zon 4, Interior (1) to 23-2-6, Inti- to and right loosed;C-C fon ctions showr ) : Lum DOL= psf (Lum DC Cat B; Partia isidered for the prof min roof	; Cat. ne erior r ; 1.15 DL = illy his					
FORCES TOP CHORD	(lb) - Maximum Com Tension 1-2=0/21, 2-4=-2729 6-7=-1850/483, 7-8= 8-10=-2571/558, 10- 12-13=0/21	pression/Maximur //586, 4-6=-2571/5 1850/483, -12=-2729/586,	n 6) 558, 7)	load of 12.0 overhangs n Building Des verifying Rai requirements All plates are	psf or 1.00 times on-concurrent w igner/Project en n Load = 5.0 (ps s specific to the s 3x6 (=) MT20 op boop designed	s flat roof lo rith other liv gineer resp sf) covers r use of this unless other	bad of 11.5 p ve loads. bonsible for ain loading truss compo erwise indica	sf on nent. ited.					1100
BOT CHORD WEBS	2-18593/2380, 16- 14-16=-309/2028, 12 10-14=-267/203, 4-1 7-16=-268/1346, 6-1 8-16=-655/310, 6-18 8-14=-100/549	-18=-415/2028, 2-14=-433/2380 8=-267/203, 6=-655/310, 3=-100/549,	8) 9) 1(	* This truss ha * This truss ha on the bottor 3-06-00 tall b chord and ar ) Provide mec	ad nonconcurrer has been design n chord in all are by 2-00-00 wide hy other membel hanical connecti	ed for a liv ed for a liv eas where will fit betw rs, with BC ion (by oth	other live load e load of 20.0 a rectangle veen the botto DL = 10.0psi ers) of truss	ads. Opsf om f. to			New York	ORTH CA	Max 4
NOTES 1) Unbalanc this desig	ed roof live loads have n.	been considered	for 11 12 L(	<ul> <li>bearing plate</li> <li>2 and 354 lb</li> <li>This truss is</li> <li>International</li> <li>R802.10.2 ar</li> <li>Attic room cf</li> <li>DAD CASE(S)</li> </ul>	e capable of with uplift at joint 12 designed in acc Residential Coo nd referenced st necked for L/360 Standard	istanding 3 ordance wi de sections andard AN deflection	54 lb uplift at ith the 2018 R502.11.1 a ISI/TPI 1.	and		11114	J. M. MARINE	2867	E.P. St.

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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	A05	Common	1	1	Job Reference (optional)	173085220

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:48 ID:Zxgb3qlZkcGsntAZxgzq9pzMBRS-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f





	7-9-12	14-6-0	24-2-0	30-10-4	38-8-0	
	7-9-12	6-8-4	9-8-0	6-8-4	7-9-12	
Scale = 1:84.9						

### Plate Offsets (X, Y): [2:0-3-0,0-0-1], [12:0-3-9,0-0-1], [14:0-6-0,0-3-0], [15:0-6-0,0-3-0]

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	0.86	Vert(LL)	-0.23	13-14	>999	240	MT20	244/190	
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15		BC	0.84	Vert(CT)	-0.39	13-14	>999	180	M18AHS	186/179	
TCDL	7.0	Rep Stress Incr	YES		WB	0.65	Horz(CT)	0.12	12	n/a	n/a			
BCLI	0.0*	Code	IRC201	B/TPI2014	Matrix-MS		- (- )							
BCDL	10.0		11(0201	5,1112011								Weight: 248 lb	FT = 20%	
					7 40 34 14 400 1	(0					4			
LUMBER			2)	Wind: ASCE	7-16; Vult=130mpr	1 (3-sec	cond gust)	<b>o</b> <i>i</i>	1) De	ead + Sn	ow (ba	alanced): Lumber	Increase=1.15, H	Plate
TOP CHORD	2x4 SP No.2			Vasd=103mp	on; TCDL=4.2psf; B	CDL=3	.0psf; n=25ft;	; Cat.	In	crease='	1.15	L /61)		
BOT CHORD	2x4 SP No.1 *Excep No.2	t* 15-14,15-14:2x6 S	SP	and C-C Exte	closed; MVVFRS (ei erior(2E) -0-10-8 to	nvelope 2-11-1	e) exterior zor 4, Interior (1)	ne	Ur	Vert: 17	ads (II -21=-2	d/ft) 20, 1-7=-37, 7-12=	-37, 7-14=-30 (F	-)
WEBS	2x4 SP No.2 *Except	t* 16-4.13-10:2x4 SF	Р	2-11-14 to 19	-4-0, Exterior(2R)	19-4-0	to 23-2-6, Inte	erior						,
	No.3	,		(1) 23-2-6 to	38-8-0 zone; cantil	ever let	t and right							
SLIDER	Left 2x4 SP No.3 2	2-6-0. Right 2x4 SP I	No.3	exposed ; en	d vertical left and ri	ght exp	osed;C-C for							
	2-6-0	, <b>J</b>		members and	d forces & MWFRS	for rea	ctions shown	ı;						
BRACING				Lumber DOL	=1.60 plate grip DC	DL=1.60	)							
TOP CHORD	Structural wood she	athing directly applie	ed or 3)	TCLL: ASCE	7-16; Pr=20.0 psf	(roof LL	: Lum DOL=	1.15						
	2-2-0 oc purlins.			Plate DOL=1	.15); Pg=15.0 psf; I	Pf=11.5	5 psf (Lum DC	DL =						
BOT CHORD	Rigid ceiling directly	applied or 7-11-2 oc	0	1.15 Plate D	DL = 1.15); ls=1.0;	Rough	Cat B; Partia	lly						
	bracing.			Exp.; Ce=1.0	; Cs=1.00; Ct=1.10	)								
REACTIONS	(size) 2=0-6-0, 1	12=0-6-0	4)	Unbalanced	snow loads have be	een cor	isidered for th	าเร						
	Max Horiz 2=167 (LC	C 20)	E)	design.	a haan daalanad fa	r aroot	or of min roof	live						
	Max Uplift 2=-378 (L	C 16), 12=-364 (LC	17) 3)	lood of 12 0	s been designed to	r great		live of on						
	Max Grav 2=1716 (L	_C 3), 12=1696 (LC 3	3)	overbangs n	on-concurrent with	ather liv	valuori i i.o.p:	51 011						
FORCES	(lb) - Maximum Com	pression/Maximum	, 6)	Building Des	aper/Project engine		onsible for							
	Tension		0)	verifying Rai	1  oad = 5.0  (nsf) c	overs r	ain loading							
TOP CHORD	1-2=0/21, 2-4=-2921	/628, 4-6=-2854/679	9,	requirements	specific to the use	of this	truss compor	nent						
	6-7=-2520/654, 7-8=	-2562/674,	7)	All plates are	MT20 plates unles	s other	wise indicate	d.					111.	
	8-10=-2895/694, 10-	-12=-2962/647	8)	This truss ha	s been designed fo	r a 10.0	) psf bottom					N' U CA	Dalle	
BOT CHORD	2-16=-636/2558, 13-	-16=-483/2351,	- /	chord live loa	d nonconcurrent w	ith any	other live loa	ds.				"ath un	TO1 11	
	12-13=-504/2595		9)	* This truss h	as been designed	for a liv	e load of 20.0	Opsf			5	Onicas	it. This	
WEBS	4-16=-242/197, 8-13	8=-162/375,	,	on the botton	n chord in all areas	where	a rectangle				22		1. 7'	
	7-15=-301/1007, 6-1	5=-510/308,		3-06-00 tall b	y 2-00-00 wide will	fit betv	veen the botto	om			-	4 A SI	UN: 1	-
	7-14=-347/1152, 8-1	4=-510/312,		chord and an	y other members, v	with BC	DL = 10.0psf	ŀ.		-		in st	<b>K</b> 1 1	-
	6-16=-153/376, 10-1	3=-242/197	10	) Provide mecl	nanical connection	(by oth	ers) of truss t	0		=		SEA		=
NOTES				bearing plate	capable of withsta	nding 3	78 lb uplift at	joint		=		0000	- :	-
1) Unbalance	ed roof live loads have	been considered for	r	2 and 364 lb	uplift at joint 12.					1	:	2867	/ :	=
this desigr	۱.		11	) This truss is	designed in accord	ance w	ith the 2018						1 ( A )	2
				International	Residential Code s	ections	R502.11.1 a	ind			2	· .	a in a	2
				R802.10.2 ar	nd referenced stand	dard AN	ISI/TPI 1.					O'SNGINI	ENT	
			12	) Attic room ch	ecked for L/360 de	flection					11	-KA	T. S.	
			13	<ul> <li>In the LOAD of the truss a</li> </ul>	CASE(S) section, I re noted as front (F	oads a <sup>-</sup> ) or ba	oplied to the f ck (B).	ace				11, L.G.	ALILIN	
			LC	DAD CASE(S)	Standard	,	. ,					in the second se	THE.	
				(-)										

April 30,2025

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818 Soundside Road Edenton, NC 27932

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 Advancement description (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	999 Serenity	
P02235-24938	A06	Common	6	1	Job Reference (optional)	173085221

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:48 ID:WU0I00z7E0fHK5j40eSBlvzMBPI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:86.7	
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Plate Offsets (X, Y): [2:0-3-13,0-0-1], [12:0-3-13,0-0-1], [14:0-6-0,0-3-0], [15:0-6-0,0-3-0]

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDI	(psf) 20.0 11.5/15.0 7.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018	3/TPI2014	CSI TC BC WB Matrix-MS	0.75 0.92 0.66	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.22 -0.38 0.12	(loc) 13-14 13-14 12	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 M18AHS Weight: 249 lb	<b>GRIP</b> 244/190 186/179 FT = 20%	
DODL	10.0											Weight. 249 lb	11 = 2078	
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD	2x4 SP No.2 *Excep 2x4 SP No.1 *Excep No.2 2x4 SP No.2 *Excep No.3 Left 2x4 SP No.3 2 2-6-0 Structural wood shee	t* 1-5,9-12:2x4 SP N t* 15-14,15-14:2x6 S t* 16-4,13-10:2x4 SF 2-6-0, Right 2x4 SP N athing directly applie	2) lo.1 SP No.3 d or 3)	Wind: ASCE Vasd=103mp II; Exp B; End and C-C Exte 2-11-14 to 15 (1) 23-2-6 to exposed ; en members and Lumber DOL TCLL: ASCE	7-16; Vult=130mpł h; TCDL=4.2psf; B closed; MWFRS (er iroir(2E) -0-10-8 to -4-0, Exterior(2R) 38-8-0 zone; cantil d vertical left and rid f orces & MWFRS =1.60 plate grip DC 7-16; Pr=20.0 psf	n (3-sec CDL=3 nvelope 2-11-1 19-4-0 ever lef ght exp for rea DL=1.60 (roof LL	eond gust) .0psf; h=25ft; e) exterior zon 4, Interior (1) to 23-2-6, Inte t and right oosed;C-C for ctions shown; ) .: Lum DOL=1	Cat. le erior ;	1) De Inc Ur	ead + Sn crease=1 hiform Lo Vert: 1-7	ow (ba 1.15 bads (II 7=-37,	ılanced): Lumber v/ft) 7-12=-37, 17-21=	Increase=1.15, -20, 7-14=-30	Plate
	2-9-3 oc purlins.	annig anoony appno		Plate DOL=1	.15); Pg=15.0 psf;	Pf=11.5	psf (Lum DC	)L =						
BOT CHORD	Rigid ceiling directly	applied or 7-11-2 oc		1.15 Plate D0 Exp · Ce=1.0	DL = 1.15); IS=1.0; · Cs=1.00· Ct=1.10	Rougn )	Cat B; Partial	iy						
REACTIONS	(size) 2=0-6-0, 1 Max Horiz 2=167 (LC Max Uplift 2=-378 (L Max Grav 2=1718 (L (lb) - Maximum Com	12= Mechanical 2 20) C 16), 12=-365 (LC 2 .C 3), 12=1698 (LC 3 pression/Maximum	4) 17) 5) 3) 6)	Unbalanced design. This truss ha load of 12.0 p overhangs no Building Desi	snow loads have be s been designed fo osf or 1.00 times fla on-concurrent with gner/Project engine	een cor or great at roof le other liv eer res	er of min roof oad of 11.5 ps ve loads. ponsible for	iis live sf on						
TOP CHORD	Lension 1-2=0/21, 2-4=-2924 6-7=-2536/659, 7-8= 8-10=-2901/696, 10-	/629, 4-6=-2857/681 2580/680, -12=-2968/650	, 7) 8)	verifying Rair requirements All plates are This truss ha	Load = 5.0 (psf) c specific to the use MT20 plates unles been designed fo	overs r of this s other or a 10.0	ain loading truss compon wise indicated ) psf bottom	ient. d.						
BOT CHORD	2-16=-637/2561, 13-	16=-485/2361,	0)	chord live loa	d nonconcurrent w	ith any	other live load	ds.			S	RTH	9411	
WEBS NOTES 1) Unbalance this desigr	12-13=-506/2600 4-16=-241/197, 6-16 6-15=-510/309, 7-15 7-14=-352/1167, 8-1 8-13=-161/367, 10-1 ed roof live loads have 1.	=-152/369, =-305/1017, 4=-509/313, 3=-242/197 been considered for	9) 10] 11] 12] 13] LO	* This truss h on the bottom 3-06-00 tall b chord and an ) Refer to girde ) Provide mech bearing plate 2 and 365 lb ) This truss is of International R802.10.2 ar ) Attic room ch	as been designed in chord in all areas y 2-00-00 wide will y other members, er(s) for truss to tru- nanical connection capable of withsta uplift at joint 12. designed in accord Residential Code s id referenced stander ecked for L/360 de Standard	for a liv where fit betw with BC ss conr (by oth nding 3 ance w sections dard AN flection	e load of 20.0 a rectangle veen the bottc DL = 10.0psf. ections. ers) of truss to 78 lb uplift at ith the 2018 R502.11.1 at ISI/TPI 1.	ipsf om joint nd		. ANTHURS	N Shink	SEA 2867	FR.St.	Manunin,

April 30,2025

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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 PCB Building Component Science Michael Component Advancement description (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	999 Serenity	
P02235-24938	A07E	Common Supported Gable	1	1	Job Reference (optional)	173085222

Scale = 1:86.3

#### Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:49 ID:KcHGFLsbSwmGaBEiRFkLbnzMAm6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





38-8-0	
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### Plate Offsets (X, Y): [2:0-3-8,Edge], [2:Edge,0-1-8], [3:0-5-0,0-1-13], [33:0-3-8,0-2-13]

Loading ICLL (roof) Snow (Pf/Pg) ICDL BCLL BCDL	(psf) 20.0 11.5/15.0 7.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-	0.11 0.03 0.07 MS	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.01	(loc) - - 33	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 330 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER FOP CHORD BOT CHORD DTHERS SLIDER BRACING FOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.3 *Excep 48-18,49-17,50-16,5 46-20,45-21,44-22,4 Left 2x4 SP No.3 1 1-5-7 Structural wood shea 6-0-0 oc purlins. Rigid ceiling directly bracing. 1 Row at midpt (size) 2=38-8-0, 38=38-8-0 41=38-8-0 45=38-8-0 55=38-8-0 55=38-8-0 61=38-8-0 61=38-8-0 Max Horiz 2=158 (LC	t* 1-15,52-14,53-13,47- 3-23:2x4 SP No.2 I-5-7, Right 2x4 SP N athing directly applied applied or 10-0-0 oc 18-48, 17-49, 16-50, 19-47, 20-46 33=38-8-0, 34=38-8- 0, 39=38-8-0, 40=38-8- 0, 43=38-8-0, 40=38-8- 0, 43=38-8-0, 40=38-8- 0, 49=38-8-0, 40=38-8- 0, 49=38-8-0, 40=38-8- 0, 52=38-8-0, 50=38-8- 0, 55=38-8-0, 57=38-8- 0, 59=38-8-0, 60=38-8- 0, 62=38-8-0	19, o.3 I or 9-0, 9-0, 9-0, 9-0, 9-0, 9-0, 9-0, 9-0,	Max Uplift Max Grav	$\begin{array}{c} 2=-26 \ (LC \ 12), 3\\ 35=-43 \ (LC \ 17), \\ 37=-42 \ (LC \ 17), \\ 39=-42 \ (LC \ 17), \\ 41=-42 \ (LC \ 17), \\ 44=-42 \ (LC \ 17), \\ 44=-42 \ (LC \ 17), \\ 46=-50 \ (LC \ 17), \\ 49=-26 \ (LC \ 16), \\ 51=-42 \ (LC \ 16), \\ 51=-42 \ (LC \ 16), \\ 56=-42 \ (LC \ 16), \\ 58=-42 \ (LC \ 16), \\ 60=-42 \ (LC \ $	$\begin{array}{c} 44=-55 \ (LC \ 17\\ 36=-42 \ (LC \ 1\\ 38=-42 \ (LC \ 1\\ 40=-42 \ (LC \ 1\\ 40=-42 \ (LC \ 1\\ 45=-42 \ (LC \ 1\\ 45=-42 \ (LC \ 1\\ 50=-48 \ (LC \ 1\\ 50=-48 \ (LC \ 1\\ 50=-42 \ (LC \ 1\\ 55=-42 \ (LC \ 1\\ 61=-41 \ (LC \ 3\\ 55=-42 \ (LC \ 1\\ 61=-41 \ (LC \ 3\\ 35=87 \ (LC \ 37) \ 1=98 \ (LC \ 37), 51=99 \ (LC \ 37), 51=99 \ (LC \ 36), 55=59 \ (LC \ 36), 59=99 \ (LC \ 36), 59=90 \ (LC \ 36), 59=90 \ (LC \ 36), 59=90 \ (LC \ 36), 59=50 \ (LC \ 36), 50=50 \ (LC \ 36), 50=50$	7), 17), 17), 17), 17), 17), 16), 16), 16), 16), 16), 16), 16), 16), 16), 16), 16), 16), 16), 16), 57=99 999 (LC C 2), 22), 21)	TOP CH	IORD	1-2=0/ 5-6=-1 9-10=- 12-13: 14-15: 16-17: 22-23: 24-25: 27-29: 31-32:	(18, 2-3=-196/65, 49/79, 6-7=-121) -77/108, 10-11=- -52/155, 13-14= =-76/199, 15-16= -103/263, 17-18 =-109/281, 19-20 =-89/229, 21-22= =-64/169, 23-24= =-34/24, 29-30=- =-34/24, 29-30=- =-107/38, 32-33=	3-5=-176/71, 86, 7-9=-96/94, 57/124, 11-12=-4 -64/170, -89/229, =-109/281, =-109/283, -76/199, -52/138, 26-27=-2: 52/20, 30-31=-79, -99/20	8/139, :3/48, //26,
			FORCES	(lb) - Max Tension	62=78 (LC 36) kimum Compressi	on/Maximum					SEA		ALL U

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April 30,2025

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#### Continued on page 2 WARNING - Verify design

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 **ANSI/TPI Quality Criteria and DSE2** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbaccomponents.com)

Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	A07E	Common Supported Gable	1	1	Job Reference (optional)	173085222

BOT CHORD 2-62=-49/153, 61-62=-54/157.

Run: 8.83 S. Apr 11 2025 Print: 8.830 S. Apr 11 2025 MiTek Industries. Inc. Mon Apr 28 16:23:49 ID:KcHGFLsbSwmGaBEiRFkLbnzMAm6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

	60-61=-54/157 59-60=-54/157
	58-59=-54/157 57-58=-54/157
	56-57=-54/157 55-56=-54/157
	53-55=-54/157 52-53=-54/157
	51-5254/157 50-5154/157
	$A_{0-50} = 54/157, 86 01 = 54/157, 86 01 = 54/157$
	49-50=-54/157, 40-43=-54/157, A7-48=-54/157, 46-47=-54/157
	47 - 40 = -54/157, $40 - 47 = -54/157$ ,
	43-40=-54/157, 44-45=-54/157,
	43-44=-54/157, 41-45=-54/157,
	40-41=-54/157, 39-40=-54/157,
	38-39=-54/157, 37-38=-54/157,
	36-37=-54/157, 35-36=-54/157,
	34-35=-54/157, 33-34=-54/157
WEBS	18-48=-174/52, 17-49=-86/34, 16-50=-85/66,
	15-51=-72/56, 14-52=-72/56, 13-53=-72/57,
	12-55=-72/56, 11-56=-72/56, 10-57=-72/56,
	9-58=-72/56, 7-59=-72/56, 6-60=-72/57,
	5-61=-73/63, 3-62=-54/65, 19-47=-86/29,
	20-46=-85/66, 21-45=-72/56, 22-44=-72/56,
	23-43=-72/57, 24-41=-72/56, 25-40=-72/56,
	26-39=-72/56, 27-38=-72/56, 29-37=-72/56,
	30-36=-73/57, 31-35=-69/82, 32-34=-93/104
NOTES	

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II: Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-11-14, Exterior(2N) 2-11-14 to 19-4-0, Corner(3R) 19-4-0 to 23-4-0, Exterior (2N) 23-4-0 to 38-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 4) Plate DOL=1.15); Pg=15.0 psf; Pf=11.5 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this 5) desian.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhands non-concurrent with other live loads.
- 7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 8) All plates are 2x4 (||) MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing. 9)
- 10) Gable studs spaced at 1-4-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) \* 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.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2, 26 lb uplift at joint 49, 48 lb uplift at joint 50, 42 lb uplift at joint 51, 42 lb uplift at joint 52, 42 lb uplift at joint 53, 42 lb uplift at joint 55, 42 lb uplift at joint 56, 42 lb uplift at joint 57, 42 lb uplift at joint 58, 42 lb uplift at joint 59, 42 Ib uplift at joint 60, 41 lb uplift at joint 61, 43 lb uplift at joint 62, 19 lb uplift at joint 47, 50 lb uplift at joint 46, 42 Ib uplift at joint 45, 42 lb uplift at joint 44, 42 lb uplift at joint 43, 42 lb uplift at joint 41, 42 lb uplift at joint 40, 42 Ib uplift at joint 39, 42 lb uplift at joint 38, 42 lb uplift at joint 37, 42 lb uplift at joint 36, 43 lb uplift at joint 35 and 55 lb uplift at joint 34.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

#### LOAD CASE(S) Standard

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 and the second design much reacting of design and the second design much reacting and and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	B01E	Common Supported Gable	1	1	Job Reference (optional)	173085223

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:49

ID:9liOf1Lh1DobNKIOnfSjCDzMAIU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

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

#### -0-10-8 13-4-8 2-0-0 6-3-0 10-6-0 12-6-0 2-0-0 4-3-0 4-3-0 2-0-0 0-10-8 0-10-8 12-6-0 4x6 = 6 5 4-7-13 2-5-13 812 81 8 4 5x10 🅢 5x10 💊 4-9-0 3 9 2-2-0 1-8-3 0-10-0 0-5-13 0-5-13 11 18 17 16 15 14 13 12 3x10 u 3x10 II

12-6-0

Scale = 1:47.2

-				
Plate Offsets (X, Y):	[2:0-3-8,Edge],	[3:Edge,0-3-3],	[9:Edge,0-3-3]	[10:0-3-8,Edg

	, , , , , , , , , , , , , , , , , , , ,	[	3.,	, <b>L</b> = = = = , = , = , = ,	-1								
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 7.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MS	0.07 0.03 0.03	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 10	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 85 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.3 Left 2x4 SP No.3 - 2 No.3 2-2-14 Structural wood sheat 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 2=12-6-0, 13=12-6-0 Max Horiz 2=-103 (LC 12=-68 (LC 14=-47 (LC 17=-55 (LC 12=125 (L 14=107 (L 16=110 (L 18=117 (L	2-2-14, Right 2x4 SP athing directly applied applied or 10-0-0 oc 10=12-6-0, 12=12-6 , 14=12-6-0, 15=12 , 17=12-6-0, 18=12 C 12) 15), 10=-15 (LC 15) C 15), 13=-57 (LC 15) C 15), 16=-49 (LC 14) C 14), 18=-61 (LC 14) C 14), 18=-61 (LC 2), C 27), 13=104 (LC 2) C 26), 17=103 (LC 2) C 26), 17=103 (LC 2) C 26)	NC 1) 2) d or -0, 3) -0, 3) -0, 4) +), +), +), -(7), 5) -(6), 6)	Unbalanced this design. Wind: ASCE Vasd=103mp II; Exp B; End and C-C Corr 2-1-13 to 6-3 9-3-0 to 13-4 end vertical lif forces & MW DOL=1.60 pl. Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 1.15 Plate DO Exp.; Ce=1.0 This truss ha load of 12.0 p overhangs no Building Desi	roof live loads hav 7-16; Vult=130mp oh; TCDL=4.2psf; I closed; MWFRS (e ner(3E) -0-10-8 to -0, Corner(3R) 6-3 -8 zone; cantilevei eft and right expose FRS for reactions ate grip DOL=1.60 ed for wind loads i ds exposed to wind I ndustry Gable E alified building des 7-16; Pr=20.0 psf; DL = 1.15); Is=1.0 y; Cs=1.00; Ct=1.1 s been designed f psf or 1.00 times fi fon-concurrent with igner/Project engire	e been of BCDL=3 BCDL=3 anvelope 2-1-13, -0 to 9-3 - left and ed;C-C shown; 	considered fo cond gust) .0psf; h=25ft; ) exterior zor Exterior(2N) 3-0, Exterior(2N) 3-0, Exterior(2N) dright expose for members Lumber ane of the tru al to the face ills as applical s per ANSI/TF construction is per ANSI/TF construction is per ANSI/TF construction is per ANSI/TF construction is per ANSI/TF construction constru	r (Cat. ne 2N) d; and ss ), ble, Pl 1. 1.15 DL = Ily live sf on	12) Pro bea 2, 1 at jc 57 I 13) This Inte R80 LOAD (	vide mec ring plat 5 lb uplif 5 lb uplif 5 lb uplif b uplift a 5 truss is rnationa 2.10.2 a <b>CASE(S)</b>	chanicic e capa ft at joi 11 lb up it joint i desig I Resic and ref-	al connection (by ble of withstandi nt 10, 49 lb uplift Jift at joint 18, 47 13 and 68 lb upli ned in accordance dential Code sect erenced standard ndard	others) of truss to ng 13 lb uplift at joint at joint 16, 55 lb uplift 'lb uplift at joint 14, it at joint 12. e with the 2018 ions R502.11.1 and J ANSI/TPI 1.
FORCES	(lb) - Maximum Compression/Maximum Tension RD 1-2=0/20, 2-3=-88/71, 3-4=-67/56, 4-5=-57/80, 5-6=-65/126, 6-7=-65/126, 7-8=-41/80, 8-9=-35/25, 9-10=-62/34,			requirements All plates are Gable require Gable studs s ) This truss ha	specific to the use 2x4 (  ) MT20 un es continuous bott spaced at 1-4-0 oc s been designed f	e of this less oth om chor c. or a 10.0	truss compor erwise indicat d bearing.	nent. ted.		annun.	in the second se	SEA 2867	
BOT CHORD	2-18=-39/104, 17-18 16-17=-40/107, 15-1 14-15=-40/107, 13-1 12-13=-40/107, 10-1 6-15=-78/15, 5-16=-{ 3-18=-88/91, 7-14=-{ 9-12=-88/91	=-40/107, 6=-40/107, 4=-40/107, 2=-39/104 32/73, 4-17=-80/88, 30/73, 8-13=-81/88,	11	chord live load nonconcurrent with any other live loads. 11) * 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.							EER. SK III		

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and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



April 30,2025

818 Soundside Road Edenton, NC 27932

lel

Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	B02G	Common Girder	1	2	Job Reference (optional)	173085224

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:50 ID:m9m58JAniJiINOmDZ99vIszMAj8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





Scale = 1:49.8

Plate Offsets (X, Y): [2:0-5-13.Edge], [8:0-5-13.Edge], [10:0-5-0.0-4-8]

	(, .). [=	ge], [ere e re,==ge],	[	· •1								-		
loading	(nsf)	Spacing	2-0-0		CSI		DEEL	in	(loc)	l/defl	l /d		GRIP	
	20.0	Plate Grip DOI	1 15			0.38	Vort(LL)	-0.06	10-11	~000	240	MT20	2///100	1
Spow (Pf/Pa)	11 5/15 0		1.15		BC	0.00	Vort(CT)	-0.10	10-11	~000	180	101120	244/100	,
	7.0	Ron Stross Incr	NO			0.00		0.10	0	>333 n/o	n/o			
	7.0	* Code	INC 10		Motrix MC	0.01	11012(01)	0.03	0	n/a	n/a			
	0.0	Code	IRC201	8/1912014	Iviatrix-IviS								FT 00	0/
BCDL	10.0											weight: 178 lb	FI = 20	1%
LUMBER			3)	Unbalanced	roof live loads hav	/e been	considered fo	or	Ur	niform Lo	bads (I	b/ft)		
TOP CHORD	2x4 SP No.2		,	this design.						Vert: 1-	5=-37 <sup>°</sup> .	5-8=-37. 12-16=	-20	
BOT CHORD	2x6 SP No.2		4)	Wind: ASCE	7-16; Vult=130mp	oh (3-se	cond gust)		Co	oncentra	ted Lo	ads (lb)		
WEBS	2x4 SP No.3 *Exc	ept* 10-5:2x4 SP No	.2	Vasd=103m	ph; TCDL=4.2psf;	BCDL=3	3.0psf; h=25ft	; Cat.		Vert: 9=	-1164	(B), 18=-1165 (B	). 20=-116	64 (B).
SLIDER	Left 2x6 SP No.2	2-6-0. Right 2x6 SI	P No.2	II; Exp B; En	closed; MWFRS (	envelop	e) exterior zor	ne;		21=-116	64 (B).	22=-1164 (B). 23	);	B)
	2-6-0	,	cantilever lef	ft and right expose	d; end	ertical left an	nd			( ),		- (	,	
BRACING				right expose	d; Lumber DOL=1	.60 plate	grip DOL=1.	60						
TOP CHORD	Structural wood s	heathing directly app	lied or											
	4-7-7 oc purlins		5)	TCLL: ASCE	7-16; Pr=20.0 ps	f (roof Ll	.: Lum DOL=	1.15						
BOT CHORD	Rigid ceiling direc	tly applied or 10-0-0	oc	Plate DOL=1	1.15); Pg=15.0 psf	; Pf=11.	5 psf (Lum DC	DL =						
	bracing.			1.15 Plate D	OL = 1.15); ls=1.0	); Rough	Cat B; Partia	lly						
REACTIONS	(size) 2=0-6-1	) 8=0-6-0		Exp.; Ce=1.0	); Cs=1.00; Ct=1.1	0								
	Max Horiz 2=107	(IC7)	6)	This truss ha	as been designed I	for great	er of min roof	live						
	Max I Inlift 2=-128	6 (I C 10) 8=-1163 (I	I C 11)	load of 12.0	pst or 1.00 times t	lat roof I	oad of 11.5 p	st on						
	Max Grav 2=5708	3 (I C 3) 8=5202 (I C	3) -	overhangs n	on-concurrent with	n other li	ve loads.							
FORCES	(lb) Movimum C	o (200), 0=0202 (20	Building Des	signer/Project engli	neer res	ponsible for								
FURCES	(ID) - Maximum C	ompression/waximur	11	verifying Rai	n Load = 5.0 (pst)	covers	ain loading							
	1-2-0/26 2-462	45/1432 4-5-4726	/1008 0)	This trues he	s specific to the us		truss compoi	nent.						
	5-64726/1007	8-86101/1116	1030, 8)	This truss ha	as been designed i	iora iu.	o psi bollom	do						
	2-11=-1181/5152	10-11=-1181/5152	0)	* This truce k		tor a liv		lus. Doct						
	9-10=-1135/5202	8-9=-1135/5202	9)	on the bottor	nas been designed	s whore	a rectande	opsi						
WEBS	4-11=-451/2106	4-10=-1626/441		3-06-00 tall b	2-00-00 wide wi	ill fit het	veen the hott	om				1111 CA	-"'II	No.
	5-10=-1121/4958	6-10=-1692/457		chord and ar	by 2 00 00 mac w		veen the bott	0111				ITH UA	ROI	11
	6-9=-467/2176	0.10 1002, 101,	10	)) Provide mec	hanical connection	n (hv oth	ers) of truss t	'n				A ide	1.1.4	111
NOTES			I.	bearing plate	e capable of withst	anding '	163 lb uplift	at			22	· · · · ·	PKI.	Nº:
1) 2-ply trues	to be connected to	aether with 10d		ioint 8 and 1	286 lb uplift at ioin	t 2.						41. 11	ME	1 2
(0 131"v3	") nails as follows:	genier win rou	11	) This truss is	designed in accor	dance w	ith the 2018			-		170/0		1 I I I
Ton chord	is connected as follo	1 = 2x4 = 1 row at 0.	9-0	International	Residential Code	sections	R502.11.1 a	ind			:	SEA	1	: =
		W3. 2.4 110W dt 0	50	R802.10.2 a	nd referenced star	ndard Al	ISI/TPI 1.			- 2		JLA		: =
Bottom ch	ords connected as i	ollows: 2x6 - 2 rows	12	2) Use Simpson	n Strong-Tie HUS2	26 (14-1	0d Girder, 4-1	l0d		=		2867	7	; = = -
staggered	at 0-6-0 oc			Truss) or eq	uivalent spaced at	2-0-0 o	c max. startin	g at						4 S -
Web conn	ected as follows: 2x	4 - 1 row at 0-9-0 oc.		0-11-4 from	the left end to 10-1	11-4 to c	onnect truss(	es)			-	N		1 S -
2) All loads a	are considered equa	lly applied to all plies		to back face	of bottom chord.		·				:0	S.SNO.	-ER.	12
except if n	noted as front (F) or	back (B) face in the L	OAD 13	<ol> <li>Fill all nail ho</li> </ol>	oles where hanger	is in co	ntact with lum	ber.			1	S. GIN	E.F. C	5.5
CASE(S)	section. Ply to ply co	onnections have beer	n <b>L</b> (	DAD CASE(S)	Standard						1	NI a	VILL.	11
provided t	o distribute only loa	ds noted as (F) or (B)	), 1)	) Dead + Snow (balanced): Lumber Increase=1.15, Plate										
unless oth	nerwise indicated.		,	Increase=1	.15		- ,						min	
												Apri	1 30,202	25

TRENCO

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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	E01	Common Supported Gable	1	1	Job Reference (optional)	173085225

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:50 ID:p5JHGKZyTUIkxlw9c0f?G9zM9Sa-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:	38.4
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#### Plate Offsets (X, Y): [2:0-2-8.0-0-4], [8:0-2-8.0-0-4]

	( , , , , , , , , , , , , , , , , , , ,	1			1		-							
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	0.04	Vert(CT)	n/a	-	n/a	999			
TCDL	7.0	Rep Stress Incr	YES		WB	0.04	Horz(CT)	0.00	8	n/a	n/a			
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MP									
BCDL	10.0					-						Weight: 50 lb	FT = 20%	
LUMBER			2)	Wind: ASCE	7-16; Vult=130n	nph (3-seo	ond gust)		LOAD	CASE(S)	Sta	ndard		
TOP CHORD	2x4 SP No.2			Vasd=103m	oh; TCDL=4.2pst	f; BCDL=3	.0psf; h=25ft;	Cat.						
BOT CHORD	2x4 SP No.2			II; Exp B; En	closed; MWFRS	(envelope	) exterior zon	ie						
OTHERS	2x4 SP No.3			and C-C Cor	ner(3E) -0-10-8	to 2-1-8, E	xterior(2N) 2-	-1-8						
SLIDER	Left 2x4 SP No.3	2-4-8, Right 2x4 SP	No.3	to 3-10-0, Co	orner(3R) 3-10-0	to 6-10-0	Exterior(2N)	а.						
	2-4-8			6-10-0 to 8-6	-8 zone; cantile	ver left and	right expose	a;						
BRACING				forces & MM	ERS for reaction	osed;C-C		and						
TOP CHORD	Structural wood she	eathing directly appli	ed or	DOL=1.60 pl	late grip DOL=1.	60	Lumber							
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 o	3	Truss desigr	ned for wind load	ls in the pla	ane of the true	SS						
BOT ONORD	bracing.			only. For stu	uds exposed to w	vind (norm	al to the face)	),						
REACTIONS	(size) 2=7-1-0	8=7-1-0 10=7-1-0		see Standar	d Industry Gable	End Deta	ils as applicat	ole,						
	11=7-1-0	. 12=7-1-0		or consult qu	alified building d	lesigner a	s per ANSI/TF	의 1.						
	Max Horiz 2=-65 (LC	C 12)	4	TCLL: ASCE	: 7-16; Pr=20.0 p	ost (root LL	.: Lum DOL=1	1.15						
	Max Uplift 2=-39 (LO	C 14), 8=-46 (LC 15)	),	1 15 Ploto D	1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially									
	10=-71 (l	_C 15), 12=-68 (LC	14)		OL = 1.15, $IS = 1$	10, Kougn	Cal D, Parlia	iiy						
	Max Grav 2=159 (L	C 2), 8=159 (LC 2),	5	This truss ha	s been designer	d for areat	er of min roof	live						
	10=148 (	LC 27), 11=65 (LC 2	29), 0,	load of 12.0	psf or 1.00 times	s flat roof le	ad of 11.5 ps	sfon						
	12=144 (	LC 26)		overhangs n	on-concurrent wi	ith other liv	/e loads.							
FORCES	(lb) - Maximum Con	npression/Maximum	6	Building Des	igner/Project eng	gineer res	oonsible for							
	Tension			verifying Rai	n Load = 5.0 (ps	f) covers r	ain loading					minin	UIII.	
TOP CHORD	1-2=0/22, 2-4=-62/4	8, 4-5=-47/94,		requirements	s specific to the ι	use of this	truss compor	nent.				IN'TH CA	ROUL	
	3-0=-47/93, 0-8=-45	0/30, 8-9=0/22	oo 7	Gable studs	spaced at 1-4-0	oc.					N	A		
BOT CHORD	8-10-36/89	=-33/66, 10-11=-33/6	00, 8	This truss ha	is been designed	d for a 10.0	) psf bottom				5.	O'. FESS	ON ST	
WEBS	5-11=-52/3 4-12=-1	15/131 6-10=-115/	131	chord live loa	ad nonconcurren	it with any	other live load	ds.			22		12: 7 -	
NOTES	0 02/0,2		.0. 9	on the better	has been designe	ed for a liv	e load of 20.0	psi		2		TVV JU	V Y : E	
1) Unbalance	od roof live loade have	boon considered fo	Nr.	3-06-00 tall k	2.00-00 wide	will fit boty	a reclarigie	m		=		CEA	1 1 2	
this desig	in		Л	chord and ar	by 2-00-00 wide	wiii iit Detv 's	veen the bolic	////		=	:	SEA	L : I	
this desig	µ1.		1	)) Provide mec	hanical connecti	on (by oth	ers) of truss to	0		=	:	286	77 : 2	
				bearing plate	e capable of with	standing 3	9 lb uplift at i	oint					1 - E -	
				2, 46 lb uplif	t at joint 8, 68 lb	uplift at joi	nt 12 and 71	lb		-		N	1 3	
				uplift at joint	10.						20	SNO.	-ERIL S	
			1	1) Non Standar	d bearing condit	ion. Revie	w required.				11	Ch. GIN	E.F. SIN	
			1:	2) This truss is	designed in acco	ordance w	ith the 2018				1	NI C	AL 10	
				International	Residential Cod	le sections	R502.11.1 a	nd				11, 2. 6	ALINI	
				R802.10.2 a	nd referenced sta	andard AN	ISI/TPI 1.						min	



April 30,2025

Page: 1

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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	E02	Common	3	1	Job Reference (optional)	173085226

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:50 ID:mvAtoKRAy6qk1aGyB3xL2rzM9Q9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

Ра





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

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 7.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	<b>CSI</b> TC BC WB Matrix-MP	0.20 0.17 0.06	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.01 0.00	(loc) 5-6 5-6 2	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 38 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Left 2x6 SP No.2 1 Structural wood shea 6-0-0 oc purlins, exa Rigid ceiling directly bracing. (size) 2=0-3-0, 5 Max Horiz 2=84 (LC Max Uplift 2=-84 (LC Max Grav 2=336 (LC (lb) - Maximum Com Tension 1-2=0/26, 2-3=-232/ 4-5=-212/131 2-6=-40/151, 5-6=-11 3-6=0/112, 4-6=-32/	I-0-0 athing directly applied cept end verticals. applied or 10-0-0 oc 5=0-6-0 13) : 14), 5=-52 (LC 15) C 2), 5=244 (LC 2) pression/Maximum 110, 3-4=-205/102, 3/14 148	4) 5) 1 or 6) 7) 8) 9) 10 LC	This truss ha load of 12.0 overhangs n Building Des verifying Rai requirements This truss ha chord live loa * This truss ha chord live loa * This truss ha chord nu loa chord and an Provide mee bearing plate Provide mee bearing plate 2 and 52 lb o ) This truss is International R802.10.2 a DAD CASE(S)	as been designed psf or 1.00 times f on-concurrent witt signer/Project engin Load = 5.0 (psf) s specific to the us as been designed ad nonconcurrent has been designed m chord in all area by 2-00-00 wide w ny other members hanical connectio e at joint(s) 2. chanical connectio e capable of withsi uplift at joint 5. designed in accor Residential Code nd referenced star Standard	for great flat roof lo h other liv ineer res covers r se of this for a 10.0 with any d for a liv swhere rill fit betv n (by oth tanding & rdance w sections ndard AN	er of min roo bad of 11.5 p ve loads. bonsible for ain loading truss compo o psf bottom other live loa e load of 20. a rectangle veen the bott ers) of truss ers) of truss ers) of truss ers) of truss ith the 2018 a R502.11.1 a ISI/TPI 1.	f live sf on nent. uds. Opsf to to to joint					
<ol> <li>Unbalance this design</li> <li>Wind: ASI Vasd=103 II; Exp B; and C-C E to 3-10-0, 6-10-0 to end vertic forces &amp; M DOL=1.60</li> <li>TCLL: AS Plate DOL 1.15 Plate Exp.; Ce=</li> </ol>	ed roof live loads have n. CE 7-16; Vult=130mph Bmph; TCDL=4.2psf; BG Enclosed; MWFRS (en Exterior(2E) -0-10-8 to 2 Exterior(2E) -0-10-8 to 7 7-2-4 zone; cantilever I al left and right expose MWFRS for reactions sl 0 plate grip DOL=1.60 CE 7-16; Pr=20.0 psf; F 2 DOL = 1.15); Is=1.0; F 1.0; Cs=1.00; Ct=1.10	been considered for (3-second gust) CDL=3.0psf; h=25ft; C velope) exterior zone 2-1-8, Interior (1) 2-1- 6-10-0, Interior (1) eft and right exposed d;C-C for members an hown; Lumber roof LL: Lum DOL=1. Pf=11.5 psf (Lum DOL Rough Cat B; Partially	Cat. 8 ; nd 15 ;								and a state of the	SEA 2867	EEP. China

April 30,2025



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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	G01E	Roof Special Supported Gable	1	1	Ich Reference (ontional)	173085227

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:51 ID:uVc2StTs4C9uRkU6VXV?2kzM8tG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





0	25-10-0													
Scale = 1:/2.5	V V) [2.0	2 9 Edgol	[2:Edgo 0 1 9] [21:0	200041										
	_Λ, Τ). [2.0	-3-0,Eugej,	, [z.=uye,0-1-0], [31.0	-3-0,0-0-4]										
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL	1	(psf) 20.0 1.5/15.0 7.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matr	ix-MS	0.11 0.07 0.11	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 23	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	<b>GRIP</b> 244/190
LUMBER TOP CHORD BOT CHORD WEBS OTHERS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N Left 2x4 S Structura 6-0-0 oc Rigid cei bracing. (size) Max Horiz Max Uplift	lo.2 lo.3 lo.3 *Excep SP No.3 3 ll wood she purlins, ex ling directly 2=25-10-( 24=25-10 26=25-10 30=25-10 30=25-10 30=25-10 36=25-10 36=25-10 36=25-10 36=25-10 36=25-10 25=-34 (L 25=-34 (L 25=-34 (L 31=-46 (L 34=-34 (L 36=-42 (L 38=-42 (L 38=-42 (L 40=-72 (L	bt* 33-11:2x4 SP No.2 3-5-2 athing directly applied cept end verticals. applied or 6-0-0 oc 0, 23=25-10-0, -0, 25=25-10-0, -0, 27=25-10-0, -0, 31=25-10-0, -0, 33=25-10-0, -0, 35=25-10-0, -0, 35=25-10-0, -0, 37=25-10-0, -0, 37=25-10-0, -0, 37=25-10-0, -0, 37=25-10-0, -0, 37=25-10-0, -0, 37=25-10-0, -0, 37=25-10-0, -0, 37=42 (LC 177), C 16), 35=-46 (LC 16 C 16), 37=-42 (LC 16 C 16), 39=-40 (LC 16 C 16), 35=-40 (LC 16	FORCES TOP CHORD BOT CHORD ), ), ), ), ), ), ), ), ), ), ), ), ),	Max Gra (lb) - M Tensicio 1 -2=0/ 5-6=-4 8-9=-8 22-23= 12-13= 14-15= 16-17= 19-20= 0 2-40=- 37-38= 34-35= 30-32= 27-28= 24-25= 10-34= 7-37=- 7-37=- 4-40=- 14-30= 18-27= 21-24=	<ul> <li>2=201 (L</li> <li>24=78 (L</li> <li>26=97 (L</li> <li>28=98 (L</li> <li>(LC 2), 3</li> <li>(LC 42), (LC 23), 3</li> <li>(LC 2), 3</li> <li>(LC 2), 3</li> <li>(LC 2), 3</li> <li>(LC 2), 3</li> <li>(2), 39=7</li> <li>aximum Corn</li> <li>18, 2-4=-106</li> <li>9/116, 6-7=-1</li> <li>1/198, 9-10=</li> <li>-24/14, 11-1</li> <li>-93/204, 13-</li> <li>-69/132, 15-</li> <li>-43/76, 17-1</li> <li>-33/46, 20-2</li> <li>36/54, 39-40</li> <li>-33/53, 33-3</li> <li>-34/55, 29-3</li> <li>-34/55, 29-3</li></ul>	C 2), 2: C 45), 2 C 45), 2 C 45), 2 C 45), 2 SC 45), 2 SC 45), 2 SC 45), 2 SC 45, 2	3=48 (LC 17), 25=103 (LC 2 25=103 (LC 2 2=99 (LC 2), 3 (LC 42), 32=1 (LC 33), 34= (LC 23), 36= (LC 23), 38=10 4), 40=189 (L1 on/Maximum i=-69/92, 7-8=-71/171, 3, 10-11=-100, (241, 106, 11, 18-19=-38, 38-39=-33/5 33, 32-33=-33, 53, 32-33=-33, 54, 32-32=-34, 55, 32=-59/45, 11, 13-31=-85, 19, 16-28=-72, 14, 20-25=-75, 142	), ), 30=96 16 113 99 5 (LC C 44) /247, /57, /37 3, /55,	2) Wir Vas II; E anc to 1 16- enc DO 3) Tru DO 3) Tru OD 3) Tru Pla 1.1: Exp 5) Unt des 6) This load ove	d: ASCE sd=103m sxp B; Ei I C-C CG 3-1-3, C 1-3 to 25 I vertical zes & MV L=1.60 p ss desig y. For st s Standar consult q L: ASCI te DOL= 5 Plate D 5 Plate D 5 Plate D 5 Plate D 5 Plate S 12.0 rhangs r	E 7-160 apph; T(C nordersection) concret(3 corner(2) concret(2) concrete co	; Vult=130mph (; CDL=4.2psf; BCI d; MWFRS (env. E) -0-10-8 to 2-1 (3R) 13-1-3 to 16 ione; cantilever I nd right exposed; for reactions sha rip DOL=1.60 r wind loads in tf xposed to wind io ads to the the stry Gable End d building design 5; Pr=20.0 psf; Pf 1.15; Is=1.0; Rc =1.00; Ct=1.10 r loads have bee en designed for g r 1.00 times flat r nocurrent with oth	A-second gust) DL=3.0psf; h=25ft; Cat. elope) exterior zone -8, Exterior(2N) 2-1-8 -1-3, Exterior(2N) eft and right exposed ; C-C for members and own; Lumber ne plane of the truss normal to the face), Details as applicable, ier as per ANSI/TPI 1. of LL: Lum DOL=1.15 =11.5 psf (Lum DOL = bugh Cat B; Partially in considered for this greater of min roof live oof load of 11.5 psf on her live loads.
		38=-42 (L 40=-72 (L	.C 16), 39=-40 (LC 16 .C 16)	), NOTES	21-24=	-73/54, 19-2	3=-145/	/42	(43,					

 Unbalanced roof live loads have been considered for this design.

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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 property incorporate this design into the overall building design. Dracing 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	999 Serenity	
P02235-24938	G01E	Roof Special Supported Gable	1	1	Job Reference (optional)	173085227
84 Lumber-2383 (Dunn, NC), Du	nn, NC - 28334,	Run: 8.83 S Apr 11 2	025 Print: 8.	830 S Apr 11	2025 MiTek Industries, Inc. Mon Apr 28 16:23:51	Page: 2

- 7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 (||) MT20 unless otherwise indicated. 8)
- Gable requires continuous bottom chord bearing. 9)

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

- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) \* 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.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 2, 46 lb uplift at joint 31, 34 lb uplift at joint 34, 46 lb uplift at joint 35, 42 lb uplift at joint 36, 42 lb uplift at joint 37, 42 lb uplift at joint 38, 40 lb uplift at joint 39, 72 lb uplift at joint 40, 30 lb uplift at joint 32, 44 lb uplift at joint 30, 41 Ib uplift at joint 29, 44 lb uplift at joint 28, 38 lb uplift at joint 27, 33 lb uplift at joint 26, 34 lb uplift at joint 25 and 73 lb uplift at joint 24.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

ID:uVc2StTs4C9uRkU6VXV?2kzM8tG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	G02	Roof Special	5	1	Job Reference (optional)	173085228

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:51 ID:um7T0hgX4QIUzLHN?cl\_EJzM8t?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

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		L	6-8-6	13-1-3		20-	-5-9		25-	10-0		
Scale = 1:71.7		I	6-8-6	6-4-14	1	7-	4-6		5-	4-7	1	
Plate Offsets	(X, Y): [2:0-4-1,Edge],	[6:0-6-4,0-2-0]										
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL	(psf) 20.0 11.5/15.0 7.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI20 <sup>-</sup>	CSI TC BC WB 14 Matrix-MS	0.92 0.55 0.55	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.18 0.04	(loc) 9-11 9-11 8	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 244/190
BCDL	10.0										Weight: 136 lb	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.3 *Excep No.2 Left 2x4 SP No.3 Structural wood she except end verticals Rigid ceiling directly bracing. (size) 2=0-6-0, 8 Max Horiz 2=119 (LC Max Uplift 2=-243 (L Max Gray, 2=98 ()	t* 11-4,11-5,11-6:2x4 1-6-0 athing directly applied applied or 8-10-3 oc 3= Mechanical C 20) C 16), 8=-222 (LC 17) C 2) 8=950 (LC 2)	<ul> <li>3) TCLL: Plate I</li> <li>1.15 P</li> <li>Exp.; (</li> <li>4) Unbala</li> <li>desigr</li> <li>5) This tr</li> <li>loado</li> <li>overha</li> <li>6) Buildir</li> <li>verifyir</li> <li>requir</li> <li>7) This tr</li> <li>chord</li> <li>8) * This</li> </ul>	ASCE 7-16; Pr=20.0 p DOL=1.15); Pg=15.0 p Plate DOL = 1.15); Is=1 Ce=1.0; Cs=1.00; Ct=1 anced snow loads have n. uss has been designed f 12.0 psf or 1.00 times angs non-concurrent w ng Designer/Project en ng Rain Load = 5.0 (ps ements specific to the u uss has been designed live load nonconcurrent truss has been designed	esf (roof Li sf; Pf=11. .0; Rough .10 e been co d for great flat roof I tith other li gineer res f) covers f) covers suse of this d for a 10. t with any ed for a liv	L: Lum DOL= 5 psf (Lum D Cat B; Partia nsidered for f er of min roo bad of 11.5 p ve loads. ponsible for ain loading truss compo 0 psf bottom o ther live lor re load of 20.	=1.15 OL = ally this of live osf on onent. ads. .0psf					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	3-06-0 chord	00 tall by 2-00-00 wide and any other member	will fit bety s.	veen the bot	tom					
TOP CHORD	1-2=0/21, 2-4=-1537 5-6=-1114/380 6-7=	7/469, 4-5=-1103/398, 1370/428_7-8=-903/	9) Refer	to girder(s) for truss to	truss con	nections.	to					
BOT CHORD	2-12=-446/1316, 11- 9-11=-408/1285, 8-9	-12=-446/1316, )=-38/53	bearin 2 and	g plate capable of with 222 lb uplift at joint 8.	standing 2	243 lb uplift a	at joint				mun	1111
WEBS	4-12=0/231, 4-11=-5 6-11=-441/196, 6-9=	500/242, 5-11=-131/57 =-330/183, 7-9=-402/1	3, 11) This tr 337 Interna	uss is designed in according a contract of the second statement of the second	ordance w le sections	ith the 2018 R502.11.1	and				RTHCA	ROLIN
<ol> <li>Unbalanc this desig</li> <li>Wind: ASI Vasd=102</li> <li>II; Exp B; and C-C E to 13-1-3, 16-1-3 to end vertic forces &amp; N DOL=1.60</li> </ol>	ed roof live loads have n. CE 7-16; Vult=130mph 3mph; TCDL=4.2psf; B Enclosed; MWFRS (er Exterior(2E) -0-10-8 to Exterior(2E) 13-1-3 to 25-8-4 zone; cantilever cal left and right expose WWFRS for reactions s 0 plate grip DOL=1.60	been considered for (3-second gust) CDL=3.0psf; h=25ft; C ivelope) exterior zone 2-1-8, Interior (1) 2-1-4 16-1-3, Interior (1) left and right exposed d;C-C for members an hown; Lumber	LOAD CA	SE(S) Standard						Sun Sun	SEA 2867 OKAGINI	EP.St.
											Apri	30,2025

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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	G03E	Monopitch Supported Gable	1	1	Job Reference (optional)	173085229

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:51

ID:jk40\_AMHfxUOJ68Kr4qL2LzM8s6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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



	() / E - /-	j, e ,											
Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 7.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MP	0.32 0.34 0.13	<b>DEFL</b> 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: 27 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS DTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood sh 6-0-0 oc purlins, e Rigid ceiling direct bracing. (size) 2=6-11-( Max Horiz 2=68 (L0 Max Uplift 2=-131 ( 6=-190 ( Max Grav 2=308 (I (LC 23)	eathing directly applie xcept end verticals. y applied or 10-0-0 or ), 5=6-11-0, 6=6-11-0 2 13) LC 12), 5=-180 (LC 2 LC 16) .C 2), 5=68 (LC 16), 6	4) 5) ed or 6) c 7) 0 83), 9) 6=547 11	TCLL: ASCE Plate DOL=1 1.15 Plate D Exp.; Ce=1.0 Unbalanced design. This truss ha load of 12.0 overhangs n Building Des verifying Rai requirements Gable requir Gable studs ) This truss ha chord live loa ) * This truss ha	7-16; Pr=20.0 ps 1.15); Pg=15.0 ps OL = 1.15); Is=1.0 ); Cs=1.00; Ct=1. snow loads have as been designed psf or 1.00 times i on-concurrent witi igner/Project engi n Load = 5.0 (psf) s specific to the us es continuous bot spaced at 1-4-0 o is been designed ad nonconcurrent mas been designed	f (roof LL ; Pf=11.5 ); Rough 10 been cor for great flat roof ld h other lim neer res covers r se of this tom chor rc. for a 10.0 with any d for a liv d for a liv	: Lum DOL=' psf (Lum DC Cat B; Partial asidered for the er of min roof bad of 11.5 ps re loads. consible for ain loading truss compor d bearing. 0 psf bottom other live loa e load of 20.0	1.15 JL = Ily live sf on hent. ds.					
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum Co Tension 1-2=0/11, 2-3=-100 4-5=-129/93 2-6=-61/39, 5-6=-2 3-6=-327/453	npression/Maximum //57, 3-4=-46/63, 5/33	12	on the bottor 3-06-00 tall to chord and ar ) Provide mec bearing plate 2, 180 lb upl	n chord in all area by 2-00-00 wide w by other members hanical connectio capable of withs ift at joint 5, 190 lk	as where fill fit betw n (by oth tanding 1 o uplift at	a rectangle veen the botto ers) of truss to 31 lb uplift at joint 6 and 13	om joint 31 lb				ANA CA	Politic
NOTES 1) Unbaland this desig 2) Wind: AS Vasd=10	ed roof live loads hav n. CE 7-16; Vult=130mp 3mph; TCDL=4.2psf; l	e been considered fo h (3-second gust) 3CDL=3.0psf; h=25ft;	r 13 ; Cat. <b>L0</b>	uplift at joint ) This truss is International R802.10.2 a DAD CASE(S)	2. designed in accor Residential Code nd referenced sta Standard	dance w sections ndard AN	ith the 2018 R502.11.1 a ISI/TPI 1.	nd			A.A.	fl.M	AN A

- Vasd=103mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-3-7, Exterior(2N) 2-3-7 to 6-9-4 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
- 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.



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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	G04	Monopitch	10	1	Job Reference (optional)	173085230

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:52

2x4 II

ID:ndUh8JYh7YNGcPnDDjbt9VzM8rt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

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

## 

6-11-0

Scale = 1:27.4

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 7.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	018/TPI2014	CSI TC BC WB Matrix-MP	0.63 0.53 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.12 -0.21 0.00	(loc) 4-7 4-7 2	l/defl >679 >391 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 25 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD FORCES TOP CHORD BOT CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-11-0 oc purlins, e Rigid ceiling directly bracing. (size) 2=0-6-0, 4 Max Horiz 2=70 (LC Max Uplift 2=-109 (L Max Grav 2=301 (LC (lb) - Maximum Com Tension 1-2=0/11, 2-3=-178/ 2-4=-138/170	athing directly applie xcept end verticals. applied or 10-0-0 of 4= Mechanical 15) .C 12), 4=-78 (LC 16 C 2), 4=250 (LC 23) apression/Maximum 83, 3-4=-162/165	d or	<ol> <li>Building Desverifying Rairequirements</li> <li>This truss hachord live loc</li> <li>* This truss hachord live loc</li> <li>* This truss from the bottor</li> <li>3-06-00 tall bit</li> <li>Refer to gird</li> <li>10) Provide mec</li> <li>bearing plate</li> <li>4 and 109 lb</li> <li>11) This truss is</li> <li>International</li> <li>R802.10.2 a</li> <li>LOAD CASE(S)</li> </ol>	igner/Project energy n Load = 5.0 (ps s specific to the u is been designer ad nonconcurren has been designer n chord in all are by 2-00-00 wide by 2-00-00 wide in a chord in all are by 2-00-00 wide in a chord in all are constant and the chord in a chord Residential Cool not referenced st Standard	gineer res f) covers r use of this d for a 10. t with any ed for a liv eas where will fit betw 's. truss conr on (by oth standing 7 ordance w le sections andard AN	ponsible for ain loading truss compc 0 psf bottom other live loa re load of 20. a rectangle veen the bott nections. ers) of truss 78 lb uplift at ith the 2018 \$ R502.11.1 a NSI/TPI 1.	ads. Opsf com to joint					
NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103 II; Exp B; I and C-C E to 6-9-4 zc	ed roof live loads have CE 7-16; Vult=130mph mph; TCDL=4.2psf; B Enclosed; MWFRS (er xterior(2E) -0-10-8 to ne; cantilever left and	been considered for (3-second gust) CDL=3.0psf; h=25ft; ivelope) exterior zon 2-1-8, Interior (1) 2-1 right exposed ; end	Cat. e -8									ORTH CA	ROJ

3x6 =

vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.5 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially

1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this

- design.5) This truss has been designed for greater of min roof live
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.

April 30,2025

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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	G05G	Flat Girder	1	3	Job Reference (optional)	173085231

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:52 ID:HIjTv1bSHAHmWmiDEbY28yzM8hT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



#### Continued on page 2

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Edenton, NC 27932

Job	Truss	Truss Type		Qty	Ply	999 Serenity	
P02235-24938	G05G	Flat Girder		1	3	Job Reference (optional)	173085231
84 Lumber-2383 (Dunn, NC), Du	nn, NC - 28334,		Run: 8.83 S Apr 11 2	025 Print: 8.	830 S Apr 11	1 2025 MiTek Industries, Inc. Mon Apr 28 16:23:52	Page: 2

ID:HIjTv1bSHAHmWmiDEbY28yzM8hT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3393 lb down and 909 lb up at 10-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (lb/ft)

Vert: 1-7=-47, 15-21=-20, 8-21=-900 (F=-880) Concentrated Loads (lb)

Vert: 13=-951 (F=-721, B=-230), 10=-230 (B), 16=-951 (F=-721, B=-230), 17=-951 (F=-721, B=-230), 18=-951 (F=-721, B=-230), 19=-951 (F=-721, B=-230), 20=-2738 (F), 21=-230 (B), 22=-230 (B), 23=-230 (B), 24=-233 (B)

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Page: 2

Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	V01	Valley	1	1	Job Reference (optional)	173085232

#### Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:52 ID:uOXbly7Gf4BtumSSKJ4z70zMAjC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



10-1-14

Scale =	1:37.9
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Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 7.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MS	0.29 0.26 0.15	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: 36 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Unbalance	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 10-0-0 oc purlins. Rigid ceiling directly bracing. (size) $1=10-1-14$ Max Horiz $1=76$ (LC Max Uplift $1=-1$ (LC Max Uplift $1=-1$ (LC Max Grav $1=3$ (LC 2) (Ib) - Maximum Corr Tension 1-2=-204/399, $2-3=-1-4=-309/182$ , $3-4=-2-4=-594/262$	athing directly applie applied or 6-0-0 oc 4, 3=10-1-14, 4=10-1 13) 14), 3=-104 (LC 31), C 14) 25), 3=101 (LC 32), 4 apression/Maximum 114/383 279/163 been considered for	4) 5) ed or 6) 7) 1-14 9) 4=752 10 11	TCLL: ASCE Plate DOL=1 1.15 Plate D Exp.; Ce=1.0 Building Dess verifying Rai requirements Gable requir Gable studs This truss ha chord live loa * This truss ha on the bottor 3-06-00 tall h chord and ar 0) Provide mec bearing plate 104 lb uplift : at joint 1. 1) This truss is International R802.10.2 a	F-16; $Pr=20.0 \downarrow$ 1.15); $Pg=15.0 \downarrow$ $OL = 1.15$ ; $Pg=15.0 \downarrow$ $OL = 1.15$ ; $Pg=15.0 \downarrow$ Cs=1.00; $Ct=1Project en  n Load = 5.0 (ps  s specific to the  es continuous b  spaced at 4-0-0  as been designed  an chord in all arr  oy 2-00-00 wide  Py other membethanical connecte capable of withat joint 3, 171 lbdesigned in accResidential Conch referenced stStandard$	bsf (roof LI sf; Pf=11.4 .0; Rough .10 gineer res if) covers r use of this bottom choi oc. d for a 10. tt with any ed for	L: Lum DOL= 5 psf (Lum DU Cat B; Partia ponsible for rain loading truss compo rd bearing. 0 psf bottom o ther live loa ve load of 20. a rectangle ween the bott hers) of truss 1 lb uplift at jo int 4 and 1 lb vith the 2018 s R502.11.1 a NSI/TPI 1.	1.15 DL = Illy nent. ds. Opsf om to int 1, uplift					
<ul> <li>c) bitality</li> <li>c) Wind: AS</li> <li>Vasd=100</li> <li>II; Exp B;</li> <li>and C-C I</li> <li>5-1-5, Ext</li> <li>10-2-4 zo</li> <li>vertical le</li> <li>forces &amp; I</li> <li>DOL=1.60</li> <li>3) Truss des</li> <li>only. For</li> <li>see Stand</li> <li>or consult</li> </ul>	n. CE 7-16; Vult=130mph 3mph; TCDL=4.2psf; B Enclosed; MWFRS (er Exterior(2E) 0-0-6 to 3- terior(2R) 5-1-5 to 8-1-4 ne; cantilever left and r ft and right exposed;C- WWFRS for reactions s uWFRS for reactions o D plate grip DOL=1.60 signed for wind loads in studs exposed to wind lard Industry Gable En t qualified building desi	<ul> <li>(3-second gust)</li> <li>CDL=3.0psf; h=25ft;</li> <li>velope) exterior zon</li> <li>0-6, Interior (1) 3-0-6</li> <li>5, Interior (1) 8-1-5 tt</li> <li>right exposed ; end</li> <li>C for members and</li> <li>hown; Lumber</li> <li>the plane of the trus</li> <li>I (normal to the face)</li> <li>d Details as applicat</li> <li>gner as per ANSI/TF</li> </ul>	Cat. e 3 to o ss , ole, e11.		Clandid						and a state of the	SEA 2867	ROUL L ZZ EEP. St



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Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	V02	Valley	1	1	Job Reference (optional)	173085233

2-4-14

### Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:52 ID:uOXbly7Gf4BtumSSKJ4z70zMAjC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



7-1-14

Scale = 1:26.7

Loading TCLL (roof) Snow (Pf/Pg) TCDL BCLL BCDL	(psf) 20.0 11.5/15.0 7.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MP	0.14 0.14 0.07	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: 25 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Libbalance	2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 7-1-14 oc purlins. Rigid ceiling directly bracing. (size) $1=7-1-14$ Max Horiz $1=-52$ (LC Max Uplift $1=-5$ (LC 4=-109 (I Max Grav $1=66$ (LC (LC 2) (Ib) - Maximum Con Tension 1-2=-92/184, 2-3=-52 1-4=-152/145, 3-4=-2 2-4=-308/197	eathing directly applied ( applied or 6-0-0 oc , 3=7-1-14, 4=7-1-14 C 10) 14), 3=-14 (LC 10), C 14) 31), 3=66 (LC 32), 4= npression/Maximum 02/184 -152/145	<ul> <li>4) TCLL: ASCE Plate DOL= 1.15 Plate D Exp.; Ce=1.</li> <li>5) Building Des verifying Ra requirement</li> <li>6) Gable requir</li> <li>7) Gable studs</li> <li>8) This truss ha chord live lo</li> <li>9) * This truss on the botto 3-06-00 tall chord and a</li> <li>10) Provide med bearing plata 14 lb uplift a</li> <li>11) This truss is International R802.10.2 a</li> </ul>	7-16; Pr=20.0 psf 1.15); Pg=15.0 psf; OL = 1.15); Is=1.0; 0; Cs=1.00; Ct=1.10; signer/Project engin in Load = 5.0 (psf) o s specific to the use es continuous botto spaced at 4-0-0 oc as been designed for ad nonconcurrent w has been designed for ad nonconcurrent w has been designed will ny other members. chanical connection a capable of withstat t joint 3 and 109 lb designed in accord Residential Code s nd referenced stand Standard	(roof LL Pf=11. Rough ) eeer res covers r of this on a too , or a 10. vith any for a liv s where I fit betw (by oth anding 5 uplift at lance w sections dard AN	L: Lum DOL= 5 psf (Lum DC Cat B; Partia ponsible for ain loading truss compoi d bearing. 0 psf bottom other live loa e load of 20.0 a rectangle veen the bottiv ers) of truss t 5 lb uplift at jo joint 4. ith the 2018 & R502.11.1 a VSI/TPI 1.	1.15 DL = Illy nent. ds. Dpsf om to int 1,					
1) Unbalance	ed roof live loads have	e been considered for									munn	1111

this design.

Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 3-7-5, Exterior(2R) 3-7-5 to 6-7-5, Interior (1) 6-7-5 to 7-2-4 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

Truss designed for wind loads in the plane of the truss 3) 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.

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and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

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April 30,2025

Page: 1



Job	Truss	Truss Type	Qty	Ply	999 Serenity	
P02235-24938	V03	Valley	1	1	Job Reference (optional)	173085234

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:23:53 ID:uOXbIy7Gf4BtumSSKJ4z70zMAjC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-1-14

Page: 1



Scale = 1:22

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

Loading TCLL (roof)	(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15		CSI TC	0.12	DEFL Vert(LL)	in n/a	(loc) -	l/defl n/a	L/d 999	PLATES MT20	<b>GRIP</b> 244/190
Snow (Pf/Pg)	11.5/15.0	Lumber DOL	1.15		BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	7.0	Rep Stress Incr	YES		WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI20	14	Matrix-MP								
BCDL	10.0											Weight: 12 lb	FT = 20%
LUMBER			6) Gable	e require	es continuous bott	om chor	d bearing.						
TOP CHORD	2x4 SP No.2		7) Gable	e studs s	spaced at 4-0-0 oc	<b>c.</b>							
BOT CHORD	2x4 SP No.2		8) This	russ ha	s been designed f	or a 10.0	) psf bottom						
BRACING			Chord O) * Thic	live loa	d nonconcurrent v	with any	other live load	JS.					
TOP CHORD	Structural wood she 4-1-14 oc purlins.	athing directly applie	ed or 9) The on the	e bottom	chord in all areas	s where	a rectangle	psi					
BOT CHORD	Rigid ceiling directly bracing.	applied or 10-0-0 or	chorc	and an	y other members.		een the botto	m					
REACTIONS	(size) 1=4-1-14,	3=4-1-14	10) Provi	de mech	anical connection	n (by oth anding 2	ers) of truss to	) Nint					
	Max Horiz 1=-29 (LC	2 12)	1 and	35 lb u	lift at joint 3	anuing 5	o io upiin at jo	JIII					
	Max Uplift 1=-35 (LC	C 14), 3=-35 (LC 15)	11) This	russ is d	designed in accord	dance w	ith the 2018						
	Max Grav 1=154 (LC	2), 3=154 (LC 2)	Interr	ational	Residential Code	sections	R502.11.1 a	nd					
FORCES	(Ib) - Maximum Com	pression/Maximum	R802	.10.2 an	d referenced stan	ndard AN	ISI/TPI 1.						
TOP CHORD	1-2=-231/132, 2-3=-	231/132	LOAD CA	ASE(S)	Standard								
BOT CHORD	1-3=-96/187												
NOTES													
1) Unbalance	ed roof live loads have	been considered for	r										
this desigr	n.												
2) Wind: ASC	CE 7-16; Vult=130mph	(3-second gust)											( )
Vasd=103	Smph; TCDL=4.2psf; B	CDL=3.0psf; h=25ft;	Cat.									11111 0 0	1111
II; Exp B; I	Enclosed; MWERS (en	ivelope) exterior zon	e								1	THUA	ROIL
exposed ·	end vertical left and rid	never left and fight									5	on Kiss	il Alle
members	and forces & MWFRS	for reactions shown:	:								22	201 1	11: 7 -
Lumber D	OL=1.60 plate grip DO	DL=1.60									2	in h	K 2
3) Truss desi	igned for wind loads in	the plane of the trus	ss							-		054	, 1 E
only. For	studs exposed to wind	(normal to the face)	,							- 3		SEA	L <u>;  </u>
see Stand	lard Industry Gable En	d Details as applicat	ole,							=	:	2867	77 : :
	CE 7-16: Pr-20.0 pef (	roof LL · Lum DOL -1	11.							1			1 - Z -
Plate DOL	_=1.15): Pa=15.0 psf: F	Pf=11.5 psf (Lum DC	)L =									N	- 1. E.
1.15 Plate	DOL = 1.15); Is=1.0; I	Rough Cat B; Partial	ly								24	NON	EERIT
Exp.; Ce=	1.0; Cs=1.00; Ct=1.10		-								11	'AN GIN	S. S.
5) Building D	esigner/Project engine	er responsible for									1	LG	ALILIN
veritying F	kain Load = 5.0 (psf) co	overs rain loading	ont									THILL.	IIIIII I
requireme	and specific to the use	or ans truss compor	ICI II.									Apri	l 30,2025



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