

RE: 24050082

134 Serenity-Roof-B328 A LH CP TMB

Site Information:

Customer: David Weekley Homes Project Name: 24050082 Lot/Block: 134 Model: Address: Subdivision: Serenity City: State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Wind Code: ASCE 7-16 Roof Load: 40.0 psf Design Program: MiTek 20/20 8.6 Wind Speed: 130 mph Floor Load: N/A psf

This package includes 44 individual, dated Truss Design Drawings and 0 Additional Drawings.

No. 1 2 3 4 5 6 7 8 9 10 11 23 4 5 6 7 8 9 10 11 23 14 15 6 7 8 9 10 11 23 4 5 6 7 8 9 10 11 2 3 4 5 6 7 8 9 10 11 2 3 4 5 6 7 8 9 10 11 2 3 4 5 6 7 8 9 10 11 2 3 4 5 6 7 8 9 10 11 2 3 4 5 6 7 8 9 10 11 12 3 4 5 6 7 8 9 10 11 12 3 10 10 10 10 10 10 10 10 10 10 10 10 10	Seal# I61152060 I61152061 I61152062 I61152063 I61152064 I61152066 I61152066 I61152067 I61152068 I61152070 I61152070 I61152071 I61152072 I61152073 I61152074 I61152076 I61152076 I61152077	Truss Name A01 A02 A03 A04 A04A A05 A06 A07 B01 B02 B03 B04 C01 C02 E01 E02 E01 E02 EJ4 EJ34	Date 10/4/2023	No. 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38	Seal# I61152080 I61152081 I61152082 I61152083 I61152084 I61152086 I61152086 I61152087 I61152088 I61152089 I61152090 I61152091 I61152092 I61152093 I61152094 I61152095 I61152096 I61152097	Truss Name G01 G02 G03 G04 H01 H02 H03 H04 HJ211 J01 J02 VLC1 VLC2 VLC3 VLC4 VLC5 VLC4 VLC5 VLE1 VLE2	Date 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023 10/4/2023
17	l61152076	EJ4	10/4/2023	37	l61152096	VLE1	10/4/2023
18	l61152077	EJ34	10/4/2023	38	l61152097	VLE2	10/4/2023
19	l61152078	F01	10/4/2023	39	l61152098	VLE3	10/4/2023
20	l61152079	F02	10/4/2023	40	l61152099	VLE4	10/4/2023

The truss drawing(s) referenced above have been prepared by

Truss Engineering Co. under my direct supervision

based on the parameters provided by Carter Components (Sanford, NC)).

Truss Design Engineer's Name: Johnson, Andrew

My license renewal date for the state of North Carolina is December 31, 2024

North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.



Trenco 818 Soundside Rd Edenton, NC 27932

October 04, 2023



RE: 24050082 - 134 Serenity-Roof-B328 A LH CP TMB

Trenco 818 Soundside Rd Edenton, NC 27932

Site Information:

Project Customer: David Weekley Homes Project Name: 24050082 Lot/Block: 134 Address: City, County: State: NC

No.	Seal#	Truss Name	Date
41	l61152100	VLE5	10/4/2023
42	l61152101	VLE6	10/4/2023
43	161152102	VLG1	10/4/2023
44	161152103	VLG2	10/4/2023

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	A01	Common Supported Gable	1	1	Job Reference (optional)	l61152060

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:38 ID:_6rcLElwA7tnIXY?wa67GkyzB5f-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:48.4

Plate Offsets (X, Y): [2:0-2-8,0-0-5], [15:0-3-8,Edge], [20:0-1-10,0-1-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MSH	0.07 0.06 0.12	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 15	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 139	GRIP 244/1 lb FT =	, 90 20%
LUMBER TOP CHORD BOT CHORD OTHERS WEDGE SLIDER BRACING TOP CHORD BOT CHORD	R HORD 2x4 SP No.2 HORD 2x4 SP No.2 HORD 2x4 SP No.3 E Right: 2x4 SP No.3 E Right: 2x4 SP No.3 1-6-0 NG			E ed or	TOP CHORD BOT CHORD WEBS	1-2=0/23, 2-4=-117 5-6=-65/78, 6-7=-5- 8-9=-82/189, 9-10= 11-12=-53/99, 12-1 14-15=-77/24 2-27=-24/91, 26-22 24-25=-24/91, 23-2 21-22=-24/91, 19-2 17-18=-24/91, 16-1 9-22=-113/14, 8-23 6-2513/78, 5-28	=-86/56, -8=-63/145, 1, 10-11=-63/1 4, 13-14=-59, 1, 25-26=-24/9 11, 22-23=-24, 11, 18-19=-24, 11, 18-19=-24, 13, 15-16=-24, 5, 7-24=-188, 3, 4-27121	45, /17, /91, /91, /91, /91, /79, /108	 6) This truss has been designed for greater of min roof liv load of 12.0 psf or 1.00 times flat roof load of 20.0 psf or overhangs non-concurrent with other live loads. 7) All plates are 2x4 MT20 unless otherwise indicated. 8) Gable requires continuous bottom chord bearing. 9) Gable studs spaced at 2-0-0 oc. 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads 11) * This truss has been designed for a live load of 20.0 pr 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 					if min roof live l of 20.0 psf on oads. indicated. earing. sf bottom her live loads. oad of 20.0psf ectangle the bottom	
REACTIONS	bracing. (size) Max Horiz Max Uplift	2=24-5-8, 17=24-5-8 24=24-5-8 27=24-5-8 27=24-5-8 2=109 (LC 2=-13 (LC 17=-37 (L1 19=-45 (L1 23=-45 (L1 23=-45 (L1 25=-45 (L1)	15=24-5-8, 16=24-5 8, 18=24-5-8, 19=24-5 8, 22=24-5-8, 23=24-5 8, 28=24-5-8, 32=24-5 18), 28=109 (LC 15 15), 16=-70 (LC 15) C 15), 18=-45 (LC 11 C 15), 21=-43 (LC 12 C 14), 24=-44 (LC 1-6 C 14), 26=-36 (LC 12 C 14), 26=-36 (LC 14) C 14), 26=-36 (LC 14) C 14), 26=-36 (LC 14) C 14), 28=-36 (LC 14)	5-8, -5-8, -5-8, -5-8, -5-8, -5-8, -5-8, -5, 5), 5), 4), 4), 5),	NOTES I) Unbalanced this design. 2) Wind: ASCE Vasd=103m Cat. II; Exp I zone and C- (2N) 2-1-10 Exterior(2N)	 10-21=-205/75, 11-12-18=-136/78, 13-14-16=-134/126 roof live loads have 7-16; Vult=130mp ph; TCDL=6.0psf; E B; Enclosed; MWFF C corner(3E) -0-10 to 9-1-10, Corner(3 15-1-10 to 21-5-8, 		3, 4-27=-121 3/79, 5/74, considered for cond gust) .0psf; h=25ft; elope) exterio 1-10, Exterior 10 to 15-1-10, 3E) 21-5-8 to	r r	3-0 cho 12) Pro bea 2, 4 upli 27, upli 16 13) This Inte R80	rd and a vide me ring pla 5 lb upli ft at join 43 lb up ft at join and 13 ll s truss is rnationa 02.10.2 a	by 2-c iny oth chanic ce capa ft at jo t 25, 3 lift at jo t 18, 3 o uplift s desig and ref	er members. al connection (able of withstar int 23, 44 lb up 6 lb uplift at join int 21, 45 lb u 7 lb uplift at join at joint 2. ned in accorda dential Code so	by others) nding 13 lb lift at joint nt 26, 77 ll plift at joint nt 17, 70 ll ance with 1 ections R5 ard ANSI/) of truss to 5 uplift at joint 24, 45 lb 6 uplift at joint 119, 45 lb 10 uplift at joint 119, 45 lb 10 uplift at joint the 2018 502.11.1 and TTPI 1.
23=-45 (LC 14), 24=-44 (LC 14), 25=-45 (LC 14), 26=-36 (LC 14), 27=-77 (LC 14), 28=-13 (LC 15) Max Grav 2=147 (LC 1), 15=87 (LC 1), 16=197 (LC 35), 17=150 (LC 1), 18=178 (LC 22), 22=153 (LC 22), 21=245 (LC 21), 24=228 (LC 22), 23=245 (LC 21), 26=158 (LC 1), 25=176 (LC 24), 28=147 (LC 1), 32=87 (LC 1) FORCES (lb) - Maximum Compression/Maximum Tension			1), 22), 27), 21), 1), 1), 2	24-5-8 zone vertical left a forces & MW DOL=1.60 p 3) Truss desig only. For stu see Standar or consult qu 4) TCLL: ASCE Plate DOL= DOL=1.15); Cs=1.00; Ct 0) Unbalanced design.	; cantilever left and and right exposed;C /FRS for reactions late grip DOL=1.60 ned for wind loads uds exposed to win d Industry Gable En ualified building des 5-7.16; Pr=20.0 psf (.15); Pf=20.0 psf (.15); Pf=20.0 psf (.15); Rough Cat =1.10 snow loads have b	right ex C-C for n shown; in the p d (norm nd Deta signer as (roof LL Lum DC B; Fully peen cor	posed ; end nembers and Lumber lane of the tru al to the face) ils as applicat s per ANSI/TF JL=1.15 Plate Exp.; Ce=0.9	ss , ole, , 1.15 ; is		Culture	ALS NUMBER	SE 458 VOREW	AL 344 JOHN	A Contraction of the second se	

818 Soundside Road Edenton, NC 27932



October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	A02	Common	1	1	Job Reference (optional)	161152061

2)

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:41 ID:sL1H2zO6Ev519wGE9Ha53QyzB67-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	A03	Roof Special	8	1	Job Reference (optional)	l61152062

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:41 ID:AJ7UwEiUaOqakg5B2g1fzPyzB4Q-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



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AMITEK Affiliate 818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	A04	Common	6	1	Job Reference (optional)	161152063

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NOTES

WEBS

Scale = 1:61

Loading

TCLL (roof)

Snow (Pf)

LUMBER

TOP CHORD

BOT CHORD

TCDL

BCLL

BCDL

WEBS

WEDGE

SLIDER

BRACING

TOP CHORD

BOT CHORD

FORCES

TOP CHORD

BOT CHORD

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

11-12=-20/33

5-10=0/1118, 8-10=-9/881, 6-8=-398/223,

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-1-10, Exterior(2R) 9-1-10 to 15-1-10, Interior (1) 15-1-10 to 21-5-8, Exterior(2E) 21-5-8 to 24-5-8 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	A04A	Common	4	1	Job Reference (optional)	161152064

Scale = 1:61

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:43 ID:1N5k5UiLgOv7p9PHKp3jFOyzB70-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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	(X, T). [2.0 + T,Euge]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER	(psf) 20.0 20.0 10.0 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 TCLL: ASCE	CSI TC BC WB Matrix-MSH 7-16; Pr=20.0 ps	0.84 0.95 0.64 f (roof LL	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.38 -0.82 0.07 1.15	(loc) 11 11 7	l/defl >781 >357 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 128 lb	GRIP 244/190 FT = 20%
TOP CHORD BOT CHORD WEBS WEDGE SLIDER BRACING TOP CHORD BOT CHORD	2x4 SP No.1 2x4 SP No.1 2x4 SP No.3 Right: 2x4 SP No.3 Left 2x4 SP No.3 1 Structural wood shea 2-2-0 oc purlins. Rigid ceiling directly bracing. Except: 6-0-0 oc bracing: 10	I-6-0 athing directly applied applied or 2-2-0 oc -13	4) 5) d or 6)	Plate DOL=1 DOL=1.15); Cs=1.00; Ct- Unbalanced design. This truss ha load of 12.0 overhangs n 200.0lb AC u 12-1-10 from apart.	I.15); Pf=20.0 psf Is=1.0; Rough Cat =1.10 snow loads have I as been designed psf or 1.00 times f on-concurrent with unit load placed or h left end, supporte	(Lum DC B; Fully been cor for greate lat roof le n other liv n the bott ed at two	DL=1.15 Plate Exp.; Ce=0.1 asidered for t er of min root bad of 20.0 p ve loads. om chord, points, 5-0-0	e 9; his f live sf on)					
REACTIONS	6-0-0 oc bracing: 10-13 ACTIONS (size) 2=0-5-8, 7=0-3-8 Max Horiz 2=109 (LC 18) Max Grav 2=1398 (LC 5), 7=1349 (LC 6) (b) Maximum Concession Maximum			 r) This truss has been designed for a 10.0 pst 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 									
TOP CHORD	(ID) - Maximum Com Tension 1-2=0/23, 2-4=-2357	7/0, 4-5=-2268/0,	9)	3-06-00 tail by 2-00-00 wide will itt between the bottom chord and any other members, with BCDL = 10.0psf. 9) This truss is designed in accordance with the 2018									
BOT CHORD	5-6=-2318/0, 6-7=-2- 2-14=-38/2045, 12-1	419/0 4=0/1500, 8-12=0/15	500,	International R802.10.2 a	Residential Code nd referenced star	sections	R502.11.1 a ISI/TPI 1.	and					
WEBS	7-8=0/2102, 11-13=- 4-14=-363/224, 13-1 5-10=0/1118, 8-10=- 11-12=-20/33	183/0, 10-11=-183/0 4=-11/815, 5-13=0/1 9/881, 6-8=-398/223	052, ,	DAD CASE(S)	Standard					\wedge	and the second s	TH CA	ROLIN
 NOTES Unbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-1-10, Exterior(2R) 9-1-10 to 15-1-10, Interior (1) 15-1-10 to 21-5-8, Exterior(2E) 21-5-8 to 24-5-8 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 											EA THE	SEA 4584 SEA 4584	ER. ON

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October 4,2023

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	A05	Half Hip	1	1	Job Reference (optional)	161152065

TCDL

BCLL

BCDL

WEBS

WEBS

WEBS

2)

grip DOL=1.60

MWFRS for reactions shown; Lumber DOL=1.60 plate

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818 Soundside Road Edenton, NC 27932

minin October 4,2023

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	A06	Half Hip	1	1	Job Reference (optional)	l61152066

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:44 ID:8_hfrEPsdpZA5tlv6Y9sy2yzB8g-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Job	Truss		Truss Type			Qty	/ Pl	y 1	34 Serenity-Roo	f-B328 A	A LH CP TMB		
24050082	A07		Half Hip Girde	ər		1	1	J	ob Reference (or	otional)		l61152067	
Carter Components (Sa	anford, NC), Sanford	d, NC - 27332,			Run: 8.63 S ID:LxL4nxeD	Aug 30 2023 ZSif7glvCyYA	Print: 8.630 AlyzBCF-R	S Aug 30 2 C?PsB70H	023 MiTek Industrie q3NSgPqnL8w3ulT	es, Inc. Tu XbGKWr	ue Oct 03 08:37:45 CDoi7J4zJC?f	Page	: 1
	-0-10-8 0-10-8	3-9-12 3-9-12	7-4-0 3-6-4		<u>11-8-11</u> 4-4-11		<u>15-9-1</u> 4-1-3	4	<u>19-11-1</u> 4-1-3		24-2-0 4-2-15	24-5-8 0-3-8	
			Ν	IAILED	NAILED	NAILED	NAILED	NAILEI	D NAILED	NAILED	NAILED	NAILED	
4-5-3 4-4-0		6 ¹² 3		4x8 =	22	235	24	25 26 0				2x4 II 29 910	4-4-0
]	\searrow			
⊥ ⊥ %⊥		3018	 31	17	32	3316	 34 15	351	4 36	10 37 1	3 38	39	
	5x8	8= 2x4 LUS26	NAILED N	IAILED	NAILED	NAILED	4x6 NAILED	S= NAILEI	NAILED	NAILED	NAILED	1211 6x8= NAILED	
		3-9-12	7-5-12		<u>11-8-11</u> 4-2-15		<u>15-9-1</u> 4-1-3	4	<u>19-11-1</u> 4-1-3		<u>24-2-0</u> 4-2-15	24-5-8	
Scale = $1:48.1$. [2:Edaa 0.4.5]		2 8 0 4 0]									0-3-8	
Loading TCLL (roof) Snow (Pf) TCDL	(psf) 20.0 20.0 10.0	[4:0-5-4,0-2-0], [12:0- Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 NO	14	CSI TC BC WB	0.81 0.65 0.81	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.13 -0.20 0.05	(loc) l/defl 14-16 >999 14-16 >999 12 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190	
BCDL	10.0	Code	IRC2018/1P120	14	Matrix-MSH						Weight: 164 lb	FT = 20%	
LUMBER TOP CHORD 2x4 BOT CHORD 2x4 WEBS 2x4 WEDGE Left BRACING TOP CHORD Str. 2-10 BOT CHORD Rig brac WEBS 1 R REACTIONS (size) Max Max FORCES (b)	SP No.2 SP 2400F 2.0E * 2 SP No.3 t: 2x4 SP No.3 uctural wood shea 0-14 oc purlins, e -0 oc purlins (2-6- pid ceiling directly icing. Sow at midpt = 2=0-5-8, 1 Horiz 2=149 (LC Uplift 2=-502 (LC Grav 2=2018 (L - Maximum Comparison)	2) Wind: Vasd= Cat. II zone; grip D 3) TCLL: Plate I DOL= Cs=1. 4) Unbal desigr 5) This tr load o overha 6) Provid 7) All pla 8) This tr chord 9) * This tr	ASCE 7 =103mpl ; Exp B; end ver OL=1.6(; ASCE 7 DOL=1. 1.15); Is 00; Ct=7 anced s n. russ has of 12.0 p angs no de adequites are live load truss has	7-16; Vult=13(7; TCDL=6.0p Enclosed; M tical left exposed 0 7-16; Pr=20.0 15); Pf=20.0 15); Pf=20.0 1.0; Rough 1.10 now loads ha been design for 1.00 time n-concurrent 1.00 time n-concurrent 3x5 MT20 unl been design d nonconcurrent s been design d nonconcurrent 1.00 time 1.00 time 1.	Omph (3-sec st; BCDL=6 WFRS (envi- sed; Lumber psf (roof LL osf (Lum DC Cat B; Fully ve been cor ed for greate s flat roof lo with other lin to prevent vi- less otherwi ed for a 10.0 ent with any ned for a liv	cond gust) .0psf; h=2 elope) exter r DOL=1.6 .: Lum DO JL=1.15 PI Exp.; Ce= asidered for er of min rr bad of 20.0 ve loads. water ponc se indicate 0 psf botto other live 1 e load of 2	5ft; erior 0 plate L=1.15 ate 0.9; r this 0 psf on ling. vd. m oads. 0.0psf	 15) "NAILED" i (0.148"x3.2 16) In the LOA of the truss LOAD CASE(6 1) Dead + S Increase= Uniform L Vert: 1- Concentration Vert: 4.23=-11 28=-11 32=-33 36=-33 	ndicates 25") toe- D CASE are not 5) Stan now (ba =1.15 .coads (lb 4=-60, 4 ated Loa =-116 (F 6 (F), 24 6 (F), 24 6 (F), 33= (F), 37=	s 3-10d (0.148"x nails per NDS g 5(S) section, load ed as front (F) o idard lanced): Lumber b/ft) 4-10=-60, 11-19: ads (Ib) 7, 7=-116 (F), 26=- 9116 (F), 30=- 9116 (F), 30=- 3-33 (F), 34=-33 33 (F), 38=-33	3") or 3-12d uidlines. ds applied to the r back (B). • Increase=1.15, =-20 7=-33 (F), 22=-1 116 (F), 27=-110 324 (F), 31=-150 (F), 35=-33 (F), (F), 39=-33 (F)	e face Plate 16 (F), 6 (F), 5 (F),	
Ten TOP CHORD 1-2	nsion =0/35, 2-3=-3283	/871, 3-4=-2881/867,	on the 3-06-0	e bottom 00 tall by	chord in all a 2-00-00 wide	reas where e will fit betv	a rectangle veen the b	e ottom					
4-5- 6-8- BOT CHORD 2-18 16- 13- 11- WEBS 3-18 9-1	=-30/7/961, 5-6= =-1842/582, 8-9= 8=-864/2857, 17- 17=-791/2583, 14 14=-881/2800, 12 12=0/0 8=-2/157, 3-17=-4 2=-258/111, 8-12: 000	-2800/881, 0/0, 9-10=0/0 18=-864/2857, I-16=-961/3077, I-13=-582/1842, 433/99, 4-17=-93/555 =-2519/796,	chord 10) H10A conne and 12 consic 11) This tr , Interna R802.	and any Simpso ect truss 2. This c der latera russ is d ational F 10.2 and	y other member n Strong-Tie of to bearing was connection is f al forces. lesigned in ac Residential Co d referenced s	ers. connectors i alls due to U for uplift only cordance w ode sections standard AN	recommen PLIFT at jt y and does ith the 201 s R502.11. ISI/TPI 1.	ded to (s) 2 ; not 8 1 and	C	Xin	SFA	ROLIN	2
8-12 6-14 5-16 NOTES 1) Unbalanced roo this design.	3=-263/1086, 6-1: 4=-76/451, 4-16= 6=-342/207, 5-14 of live loads have	12) Graph or the botton 13) Use S Truss, the lef chord. 14) Fill all	 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord. 13) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent at 3-4-12 from the left end to connect truss(es) to front face of bottom chord. 14) Fill all nail holes where hanger is in contact with lumber. 					EER. ON	Minney .				

October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	B01	Monopitch Supported Gable	1	1	Job Reference (optional)	161152068

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:46 ID:pRYBEe4gu7lwx_7UFLIIXlyzBJR-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:68.9 Plate Offsets (X, Y): [8:0-2-2,Edge], [25:0-3-11,0-1-8]

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	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.19	Vert(TL)	n/a	-	n/a	999			
TCDL		10.0	Rep Stress Incr	YES		WB	0.15	Horiz(TL)	-0.02	13	n/a	n/a			
BCLI		0.0*	Code	IRC201	8/TPI2014	Matrix-MR		· · ·							
BCDL		10.0	0000		0, 11 1201 1								Weight: 152 lb	FT = 20%	, D
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING	2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N (flat)	o.2 o.2 o.3 *Excep o.3 *Excep	t* 12-14:2x4 SP No.: t* 0-0,0-0:2x4 SPF N	T 2 Io.2 B	OP CHORD OT CHORD	1-25=-211/70, 1-2= 3-4=-355/143, 4-5= 6-7=-214/87, 7-9=- 10-11=-74/42, 11-1 12-14=-69/26 24-25=-1/0, 23-24= 21-22=-1/0, 20-21= 17, 19=, 10, 46, 17	492/19 306/12 167/69, 2=-45/2 1/0, 22 1/0, 18	2, 2-3=-390/1 3, 5-6=-260/1 9-10=-121/51 2, 12-13=-7/9 -23=-1/0, -20=-1/0, 16-1/0	156, 105, I,),	10) * Th on t 3-06 choi 11) Bea usin desi	is truss he botto 5-00 tall rd and a ring at jo g ANSI/ gner sho	has be m cho by 2-0 ny oth pint(s) TPI 1 a ould ve	een designed fo rd in all areas w 0-00 wide will fi er members. 13 considers pa angle to grain fo erify capacity of	a live load here a recta between th mallel to grai mula. Buik bearing surf	of 20.0psf ngle e bottom n value ding ace.
TOP CHORD	Structura	I wood shea	athing directly applie	d or		1/-10=-1/0, 10-1/=	-1/0, 15	-10=-1/0,		12) FIU	ring plot		al connection (c	y ouriers) or	liuss lu
BOT CHORD	6-0-0 oc Rigid ceil bracing.	purlins, exo ing directly	cept end verticals. applied or 10-0-0 oc	, v	/EBS	14-15=-1/0 11-15=-194/79, 10- 9-17=-137/80, 7-18	16=-19; =-120/8	3/81, 0, 6-20=-121,	/80,	13, uplif	16 lb up t at joint	lift at jo 16, 4	pint 14, 41 lb up 3 lb uplift at joint	lift at joint 15 17, 44 lb up	5, 45 lb
WEBS	1 Row at	midpt	12-14			5-21=-120/78, 4-22	=-122/8	6, 3-23=-113	/54,	18,	44 lb up	lift at jo	oint 20, 41 lb up	lift at joint 21	, 53 lb
WEBS	T-Brace:		2x4 SPF No.2 - 11-1	15,		2-24=-146/204				upli	t at joint	22, 5	Ib uplift at joint :	23 and 171 I	b uplift at
REACTIONS	Fasten (2 of web wi o.c.,with Brace m (size) Max Horiz Max Uplift Max Grav	2X) T and I ith 10d (0.1 3in minimum hust cover 9 13=20-5-8 20=20-5-8 20=20-5-8 25=373 (L 13=-11 (L 15=-41 (L 17=-43 (L) 20=-44 (L) 20=-44 (L) 20=-53 (L) 24=-171 (13=23 (L) 24=-250 (L)	braces to narrow ed 31"x3") nails, 6in m end distance. 10% of web length. 8, 14=20-5-8, 15=20- 8, 17=20-5-8, 18=20- 8, 21=20-5-8, 25=20- C 14) C 14), 14=-16 (LC 1- C 14), 16=-45 (LC 1- C 14), 18=-44 (LC 1- C 14), 18=-44 (LC 1- C 14), 18=-44 (LC 1- C 14), 23=-5 (LC 14) LC 14), 23=-5 (LC 14) LC 14) C 200, 14=83 (LC 20) C 200, 14=83 (LC 20)	5-8, 5-8, 5-8, 5-8, 5-8, 2-4), 4), 4), 4), 3- 4), 4), 4), 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,	 Wind: ASCE Vasd=103m Cat. II; Exp I zone and C- 3-1-12 to 20 MWFRS for grip DOL=1. Truss desig only. For sti see Standar or consult qu TCLL: ASCE Plate DOL= DOL=1.15); Cs=1.00; Ct: Unbalanced design. 	7-16; Vult=130mp ph; TCDL=6.0psf; E B; Enclosed; MWFF C Corner(3E) 0-1-1 -5-8 zone;C-C for n reactions shown; L 60 ned for wind loads uds exposed to win d Industry Gable Er Jailfied building des 7-16; Pr=20.0 psf (1S=1.0; Rough Cat =1.10 snow loads have b	h (3-sec 3CDL=6 RS (envo 2 to 3-1 nembers umber I in the pl d (norm nd Deta igner as (roof LL Lum DC B; Fully een cor	ond gust) .0psf; h=25ft; elope) exterior -12, Exterior(s and forces & DOL=1.60 pla ane of the tru al to the face) ils as applicat s per ANSI/TF L: Lum DOL=' DL=1.15 Plate Exp.; Ce=0.9	or (2N) te uss), ble, PI 1. 1.15);	13) This Inte R80 14) War trus alwa LOAD C	truss is rnationa 2.10.2 a ning: Ac s system ays requ ASE(S)	desig I Resid and ref dditiona n (not p ired. Star	ned in accordar dential Code see erenced standa al permanent ar part of this comp ndard	ce with the 2 tions R502. d ANSI/TPI d stability br ponent desig	2018 11.1 and 1. acing for n) is
FORCES	(lb) - Max Tension	15=235 (L 17=177 (L 20=161 (L 22=163 (L 24=200 (L timum Com	.C 20), 16=233 (LC 2 .C 20), 18=160 (LC 1 .C 20), 21=159 (LC 1 .C 20), 23=148 (LC 2 .C 1), 25=254 (LC 14 pression/Maximum	20), 5 1), 6 1), 6 20), 7 4) 8 9	 All plates are Gable requir Truss to be l braced again Gable studs This truss had chord live loop 	e 2x4 MT20 unless res continuous botto fully sheathed from nst lateral movemen spaced at 2-0-0 oc as been designed for ad nonconcurrent w	otherwi om chor one fac nt (i.e. d or a 10.0 vith any	se indicated. d bearing. e or securely iagonal web).) psf bottom other live load	ds.		111.	R. H.	NGIN REW Octob	EER.S OHNS Der 4,202	

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 Science Use Component Categories (http://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	134 Serenity-Roof-B328 A LH CP TMB	
24050082	B02	Monopitch	9	1	Job Reference (optional)	161152069

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:47 ID:DTBTk2iEBbrKjDFXxKE1mCyzBJw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







Scale = 1:74.5

Plate Offsets (X, Y): [1:0-4-1,Edge], [4:0-4-0,0-3-0], [8:0-2-4,0-1-8], [9:0-5-0,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing 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-MSH	0.78 0.97 0.47	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.51 -0.79 0.02	(loc) 8-9 8-9 8	l/defl >475 >306 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 114 lb	GRIP 244/190 FT = 20%	_
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.1 *Excep 2x4 SP No.1 2x4 SP No.3 *Excep Left 2x4 SP No.3 1 Structural wood shea 4-6-4 oc purlins. Rigid ceiling directly bracing. 1 Row at midpt (size) 1= Mecha Max Horiz 1=294 (LC Max Uplift 8=-98 (LC Max Grav 1=895 (LC	t* 4-1:2x4 SP No.2 t* 5-8:2x4 SP No.2 I-6-0 athing directly applie applied or 2-2-0 oc 5-8, 4-8 nical, 8= Mechanica 2 14) 2 5), 8=1056 (LC 5)	5) 7) ed or 8) Il LC	* This truss h on the bottom 3-06-00 tall b chord and an Refer to girdd Provide mecl bearing plate 8. This truss is of International R802.10.2 ar	as been designed in chord in all areas y 2-00-00 wide wil y other members, er(s) for truss to tru- nanical connection capable of withsta designed in accord Residential Code s and referenced stand Standard	for a live where I fit betw with BC Iss conn (by othe anding 9 lance wi sections dard AN	e load of 20. a rectangle veen the bott DL = 10.0ps ections. ers) of truss i 8 lb uplift at j th the 2018 R502.11.1 a ISI/TPI 1.	Opsf f. to joint and						
FORCES	(lb) - Maximum Com Tension	pression/Maximum												
TOP CHORD BOT CHORD WEBS	1-3=-1318/0, 3-5=-1 1-8=-346/1129, 7-8= 5-8=-296/94, 4-8=-9 4-9=0/753	124/91, 5-6=-12/0 :0/0 12/173, 3-9=-346/15	6,										10.	
NOTES												A LINE	Dille	
 Wind: ASC Vasd=103i Cat. II; Exp zone and C 3-0-0 to 16 for membe Lumber DC TCLL: ASC Plate DOL: DOL=1.15; Cs=1.00; C Unbalance design. This truss 	E 7-16; Vult=130mph mph; TCDL=6.0psf; B(b B; Enclosed; MWFR3 C-C Exterior(2E) 0-0-0 6-2-9, Exterior(2R) 16- irs and forces & MWFf DL=1.60 plate grip DO DE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L); Is=1.0; Rough Cat B Dt=1.10 ed snow loads have be has been designed for	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior to 3-0-0, Interior (1) 2-9 to 20-5-8 zone; CRS for reactions sho L=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9 then considered for the r a 10.0 psf bottom	r vn; l.15 ;							Contraction of the second seco	E. The second se	SEAL SEAL SEAL SEAL	EP. ONIN	

- Lumber DOL=1.60 plate grip DOL=1.60 TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 2) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

818 Soundside Road Edenton, NC 27932

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JUTIM

October 4,2023

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	B03	Monopitch	2	1	Job Reference (optional)	161152070

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:47 ID:KLIp2cdP9FdyXYyQD889fRyzBLJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:77.8

Plate Offsets (X, Y): [1:0-3-8,Edge], [4:0-4-0,0-3-0], [8:0-2-4,0-1-8], [9:0-5-0,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL	(psf) 20.0 20.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	EDI2014	CSI TC BC WB Matrix MSH	0.78 0.97 0.47	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.51 -0.79 0.02	(loc) 8-9 8-9 8	l/defl >475 >306 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190	_
BCDL	10.0	Code	IRC2018/1	P12014								Weight: 114 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.1 *Excep 2x4 SP No.1 2x4 SP No.3 *Excep Left 2x4 SP No.3 1 Structural wood shee 4-6-4 oc purlins. Rigid ceiling directly bracing. 1 Row at midpt (size) 1=0-5-8, 8 Max Horiz 1=375 (LC Max Uplift 1=-27 (LC Max Grav 1=895 (LC (lb) - Maximum Com	t* 4-1:2x4 SP No.2 t* 5-8:2x4 SP No.2 I-6-0 athing directly applied applied or 2-2-0 oc 5-8, 4-8 3= Mechanical 2 14) 14), 8=-231 (LC 14) 2 5), 8=1056 (LC 5) pression/Maximum	4) T c 5) * d or 6) F b ju 8) C 9) T	This truss ha chord live loa This truss h on the botton 3-06-00 tall b chord and an Refer to girde Provide mech bearing plate oint 8. One H2.5A S recommende UPLIFT at jt(does not con This truss is a nternational 2802 10 2 ar	s been designed fo d nonconcurrent w as been designed i n chord in all areas y 2-00-00 wide will y other members, v er(s) for truss to trus anical connection capable of withsta impson Strong-Tie d to connect truss i s) 1. This connectic sider lateral forces. Jesigned in accord: Residential Code s d referenced stance	r a 10.0 ith any for a liv where fit betw with BC ss conne (by oth- nding 2 conne to beari on is for ance wi ections lard AN	0) psf bottom other live load e load of 20.0 a rectangle veen the botts uections. ers) of truss t 31 lb uplift at ctors ng walls due uplift only ar ith the 2018 R502.11.1 a	ds. Dpsf om to to id						
			LOA	D CASE(S)	Standard	aru An	151/1911.							
BOT CHORD WEBS	1-3=-1316/29, 3-3=- 1-8=-414/1129, 7-8= 5-8=-296/101, 4-8=- 3-9=-346/201	:0/0 912/256, 4-9=-25/753	3,										11.	
NOTES	CF 7-16 [,] Vult=130mph	(3-second gust)									ĸ	TH CA	Roit	
 Wind: ASX Vasd=103 Cat. II; Ex zone and 3-0-0 to 1' vertical led MWFRS f grip DOL= TCLL: AS Plate DOL DOL=1.15 Cs=1.00; Unbalanci design. 	Samph; TCDL=6.0psf; Bd smph; TCDL=6.0psf; Bd sp B; Enclosed; MWFR3 C-C Exterior(2E) 0-0-0 7-5-8, Exterior(2E) 17-4 ft exposed;C-C for men for reactions shown; Lu =1.60 ICE 7-16; Pr=20.0 psf (L L=1.15); Pf=20.0 psf (L L=1.15); Pf=20.0 psf (L Ct=1.10 Ct=1.10 ed snow loads have be	(2-second gust) (2-second gust) (2DL=6.0psf; h=25f; S (envelope) exterior to 3-0-0, Interior (1) 5-8 to 20-5-8 zone; e nbers and forces & mber DOL=1.60 plat roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi	nd e 15 s								Co.	SEA 4584	4 EPRONI	MANDER DE

- Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

JUTIM

October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	B04	Monopitch	3	1	Job Reference (optional)	161152071

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:47 ID:uKtrJGkYuK_5qa1S4NLaLYyzBNI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:71

		•										
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 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-MSH	0.89 0.87 0.45	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.42 -0.65 0.02	(loc) 9-10 9-10 9	l/defl >572 >372 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 116 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Wind: ASC Vasde1030 Cat. II: Exp	2x4 SP No.2 2x4 SP No.1 2x4 SP No.3 *Excep Left 2x4 SP No.3	et* 6-9:2x4 SP No.2 1-6-0 athing directly applie cept end verticals. • applied or 10-0-0 oc 6-9, 5-9 9= Mechanical C 14) C 14), 9=-231 (LC 14) C 5), 9=1062 (LC 5) pression/Maximum 0/23, 2-4=-1313/29, 12/0 e-048/201, 5-10=-29/ (3-second gust) C DL=6.0psf; h=25ft; S (envelope) exterior	 4) This truss h load of 12.0 overhangs r 5) This truss h chord live lo 6) * This truss on the botto 3-06-00 tall chord and a 7) Refer to girc 8) Provide mer bearing plat joint 9. 9) One H2.5A recommend UPLIFT at jt does not coi 10) This truss is Internationa R802.10.2 a LOAD CASE(S) 	as been designed f psf or 1.00 times f ion-concurrent with as been designed f ad nonconcurrent has been designed m chord in all area by 2-00-00 wide win ny other members, ler(s) for truss to the chanical connection e capable of withst Simpson Strong-Ti ed to connect truss (s) 2. This connect sider lateral forces designed in accord I Residential Code ind referenced star Standard	or great lat roof k o ther lin or a 10.0 with any I for a liv s where II fit betw with BC uss conru- uss conru- to bear ion is for s. dance w sections indard AN	er of min roof pad of 20.0 p. /e loads.) psf bottom other live loa e load of 20.0 a rectangle /een the botto DL = 10.0psf nections. ers) of truss t (31 lb uplift at ctors ing walls due ruplift only ar ith the 2018 r R502.11.1 a ISI/TPI 1.	live sf on ds. Dpsf om to to to to		A		WHTH CA	ROLIN
zone and C	C-C Exterior(2E) -0-10)-8 to 2-1-8, Interior (1)								Yo:	11: 2

2-1-8 to 17-5-8, Exterior(2E) 17-5-8 to 20-5-8 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 2) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

The second second Summer SEAL 45844 JOY minin October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	C01	Common Supported Gable	1	1	Job Reference (optional)	l61152072

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:48 ID:y?IVUHJnnTWv5Ac?yd58OGyzBFF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:59

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

Loading TCLL (roof) Snow (Pf) TCDL		(psf) 20.0 20.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES		CSI TC BC WB	0.16 0.14 0.22	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.01	(loc) - - 16	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 244/19	90
BCDL		10.0	Code	IRC201	8/1912014	Matrix-Mik							Weight: 141	b FT = 2	20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP N 2x4 SP N 2x6 SP N 2x4 SP N Structural 6-0-0 oc p Rigid ceili bracing.	0.2 0.2 0.3 wood shea purlins, exo ng directly	athing directly applie cept end verticals. applied or 6-0-0 oc	BC W	DT CHORD 2 2 1 EBS 3 5 1 1	26-27=-124/227, 25- 24-25=-124/227, 23- 22-23=-124/227, 20- 19-20=-124/227, 18- 17-18=-124/227, 16- 3-27=-231/138, 4-26- 5-25=-128/79, 6-24= 3-22=-180/8, 10-20= 11-19=-132/99, 12-1 13-17=-130/193	-26=-1: -24=-1: -22=-1: -19=-1: -17=-1: 5=-178, =-212/1 =-215/1 [8=-13]	24/227, 24/227, 24/227, 24/227, 24/227 (186, 54, 7-23=-184 51, 8/116,	4/0,	9) Tru brac 10) Gab 11) This cho 12) * Th 3-00 cho 13) Pro	ss to be ced agai ble studs truss h rd live lo is truss he botto 6-00 tall rd and a vide med	fully sl nst late space as bee ad nor has be m cho by 2-0 ny oth chanic	heathed from o eral movement ed at 2-0-0 oc. en designed for nconcurrent wit een designed foc rd in all areas v 0-00 wide will f er members. al connection ((ne face or (i.e. diago a 10.0 psf h any othe or a live loa vhere a re- it between by others)	securely inal web). i bottom r live loads. ad of 20.0psf ctangle the bottom of truss to burgiff at
REACTIONS	(size) Max Horiz Max Uplift Max Grav	16=19-7-0 19=19-7-0 23=19-7-0 26=19-7-0 27=238 (L 16=-188 (I 18=-70 (L) 20=-107 (L 25=-36 (L) 27=-40 (L) 16=350 (L	0, 17=19-7-0, 18=19- 0, 20=19-7-0, 22=19- 0, 24=19-7-0, 25=19- 0, 27=19-7-0 .C 13), 17=-305 (LC C 15), 19=-73 (LC 15 LC 15), 24=-115 (LC C 14), 26=-189 (LC C 10) C 15), 17=243 (LC	.7-0, N (.7-0, 1) .7-0, 2) : 15), 5), : 14), 14), 13),	Unbalanced this design. Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-(2-1-8 to 6-8- (2N) 12-8-12 zone; end ve members and	roof live loads have 7-16; Vult=130mph h; TCDL=6.0psf; B 3; Enclosed; MWFR C Corner(3E) -0-10- 12, Corner(3E) -0-10- 12, Corner(3E) 6-8- to 17-5-8, Corner(3 trical left and right e d forces & MWFRS	been of CDL=6 S (env 8 to 2- 12 to 1 BE) 17- expose for rea	considered for cond gust) .0psf; h=25ft; elope) exterior 1-8, Exterior(2 2-8-12, Exteri 5-8 to 20-5-8 d;C-C for ctions shown;	r 2N) or	bea join lb u join 305 14) This Inte R80 LOAD (ring plat t 16, 40 plift at jo t 20, 73 lb uplift s truss is rnationa (2.10.2 a CASE(S)	e capa lb uplif int 25, lb uplif at join desig I Resid ind ref Stat	able of withstan it at joint 27, 18 , 115 lb uplift at it at joint 19, 70 it 17. ned in accorda dential Code se erenced standa ndard	ding 188 II 9 Ib uplift a joint 24, 1 Ib uplift at nce with th ections R5(ard ANSI/T	b uplift at at joint 26, 36 07 lb uplift at t joint 18 and te 2018 02.11.1 and IPI 1.
FORCES TOP CHORD	(lb) - Max Tension 2-27=-121 3-4=-189/ 6-7=-109/ 9-10=-112 12-13=-18 14-15=0/4	18=177 (L 20=255 (L 23=224 (L 25=165 (L 27=213 (L imum Com 7/161, 1-2= 131, 4-5=-5 192, 7-8=-5 2/198, 10-1 54/114, 13- 12, 14-16=-	20, 19–172 (LC 2) C 25), 19–172 (LC 2) C 22), 22–220 (LC 2) C 21), 26–246 (LC 2) C 21), 26–246 (LC 2) C 25) pression/Maximum 40/42, 2-3=-24/27, 92/67, 5-6=-87/82, 91/153, 8-9=-86/142 1=-92/95, 11-12=-11 14=-282/171, 224/110	, 5), 22), 3) 21), 28), 4) , 5) 10/84, 6) 7), 8)	Lumber DOL Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 p overhangs no All plates are Gable require	=1.60 plate grip DC ned for wind loads in ds exposed to wind a Industry Gable En alified building desis 7-16; Pr=20.0 psf (L s=1.0; Rough Cat E =1.10 snow loads have be s been designed for baf or 1.00 times fla on-concurrent with of 2x4 MT20 unless of es continuous bottom	DL=1.60 In the p I (norm d Deta gner as roof LL um DC 3; Fully een cor r great t roof k bther lin other win m chor) lane of the true al to the face) ils as applicab s per ANS/ITP L: Lum DOL=1)L=1.15 Plate Exp.; Ce=0.9 asidered for th er of min roof 1 bad of 20.0 ps re loads. se indicated. d bearing.	ss , le, 11. .15 ; is fon		Continue	The state of the s	SEA SEA SEA SEA SEA SEA SEA SEA SEA SEA	AROX AL 344 VEEEN	All the monorman and the second secon

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	C02	Common	6	1	Job Reference (optional)	l61152073

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:48 ID:veOhTnYiIJvCs5ZfZ6xbfGyzBEy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale =	1:60.8
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Plate Offsets (X, Y): [9:0-4-0,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing 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-MSH	0.51 0.86 0.57	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.16 -0.32 0.02	(loc) 8-9 8-9 8	l/defl >999 >710 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 125 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 6-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 8=0-5-8, 1 Max Horiz 10=238 (L Max Uplift 8=-74 (LC Max Grav 8=880 (LC	t* 10-2,8-6:2x6 SP N athing directly applie cept end verticals. applied or 10-0-0 oc 0=0-5-8 C 13) 15), 10=-74 (LC 14) 2 22), 10=880 (LC 21	4) 5) lo.2 d or 6) ; 7) 8)	Unbalanced design. This truss ha load of 12.0 J overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar One H2.5A S recommende	snow loads have b s been designed fo cosf or 1.00 times fla on-concurrent with s been designed fo ad nonconcurrent w has been designed n chord in all areas y 2-00-00 wide will y other members. Simpson Strong-Tie d to connect truss s 8 and 10. This co	een cor or greate at roof lo other liv or a 10.0 ith any for a liv where fit betw connect to bear	esidered for the er of min roof and of 20.0 p (e loads. 2) psf bottom other live load e load of 20.0 a rectangle veen the botthe ctors ng walls due po is for uplif	his f live sf on ads. Opsf om t to						
F ORCES TOP CHORD	(lb) - Maximum Com Tension 1-2=0/42, 2-3=-348/ ² 4-5=-744/157, 5-6=-3	pression/Maximum 131, 3-4=-744/157, 348/131, 6-7=0/42,	9)	only and doe This truss is International R802.10.2 ar	s not consider later designed in accord Residential Code s nd referenced stand	ral force ance w sections dard AN	es. ith the 2018 R502.11.1 a ISI/TPI 1.	and						
BOT CHORD WEBS	2-10=-373/146, 6-8= 8-10=-96/637 4-9=-79/499, 5-9=-24 3-10=-672/55, 5-8=-6	-373/145 49/208, 3-9=-249/208 672/47	LC 8,	AD CASE(S)	Standard								<u></u>	
NOTES 1) Unbalance this design 2) Wind: ASC	ed roof live loads have n. CE 7-16; Vult=130mph	been considered for (3-second gust)								\int		OR TH CA	ROLL	

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-9-8, Exterior(2E) 0-9-8 to 12-9-8, Interior (1) 12-9-8 to 17-5-8, Exterior(2E) 17-5-8 to 20-5-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

 TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 SEAL 45844

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	E01	Common Supported Gable	1	1	Job Reference (optional)	l61152074

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:49 ID:x0ypEL3Up0yR9Rp3VsFHJqyzBIA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1.55.9

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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 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-MSH	0.07 0.09 0.18	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.01	(loc) - - 14	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 127 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS SLIDER BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Left 2x4 SP No.3 1-6-0 Structural wood sh 6-0-0 oc purlins. Rigid ceiling directl	1-6-0, Right 2x4 SP f eathing directly applie y applied or 10-0-0 oc	B No.3 W dor	OT CHORD 2 1 1 /EBS 7 5 1 1 0 TES	-24=-84/224, 23-24 -2-23=-84/224, 21-3 9-21=-84/224, 18-7 -18=-84/224, 16-7 4-16=-84/224 -21=-177/29, 9-19-3 -23=-128/89, 4-24-3 0-18=-214/123, 11 2-16=-150/133	4=-84/2 22=-84/ 19=-84/ 17=-84/ =-177/1 =-173/1 -17=-12	224, (224, (224, (224, (224, 0, 6-22=-214 35, 28/88,	l/119,	10) This chor 11) * Th on tl 3-06 chor 12) Prov beau 14, 2 at jo	truss h d live lo is truss he botto 6-00 tall d and a vide me ring plat 24 lb up int 22, f	as bee bad nou has be om cho by 2-0 ny oth chanic ce capa lift at jo 56 lb u	en designed for a nconcurrent with een designed for rd in all areas w 0-00 wide will fit er members. al connection (b able of withstanc oint 2, 3 lb uplift plift at joint 23, 1	10.0 psf bottom any other live lo a live load of 20 here a rectangle between the bo y others) of truss ling 2 lb uplift at at joint 21, 98 lb 39 lb uplift at joint 20, 98 lb	1 Dads. Dopsf ttom s to joint uplift nt 24,
REACTIONS	bracing. (size) 2=18-9-0 17=18-9 24=18-9 24=18-9 Max Horiz 2=201 (L Max Uplift 2=-24 (L 16=-136 18=-102 22=98 (24=-139 29=-24 (Max Grav 2=205 (L	0, 14=18-9-0, 16=18-9 0, 18=18-9-0, 19=18- 0, 22=18-9-0, 23=18- 0, 25=18-9-0, 29=18- C 13), 29=201 (LC 12- C 10), 14=-2 (LC 11), (LC 15), 17=-56 (LC 1- (LC 14), 23=-56 (LC 1- (LC 14), 25=-2 (LC 1- (LC 14), 25=-2 (LC 1- LC 10), C 30), 14=193 (LC 25- (LC 12)	1) -9-0, 2) -9-0, 2) -9-0 3) 15), 1), 4), 1), 3) 7), 3)	 Unbalanced this design. Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-(2-3-12 to 6-3 (1) 12-5-4 to end vertical lif forces & MW DOL=1.60 pl; Truss design only. For students 	roof live loads have 7-16; Vult=130mpf h; TCDL=6.0psf; B ; Enclosed; MWFR C Exterior(2E) -0-10 -12, Exterior(2E) -0-10 -12, Exterior(2E) -0-10 -12, Exterior(2E) -0-10 -16-5-4, Exterior(2E) eff and right expose FRS for reactions s ate grip DOL=1.60 ned for wind loads i ds exposed to wind load strict code E	e been of CDL=6 S (envo)-8 to 2 -3-12 to) 16-5- ed;C-C shown; n the pl I (norm	considered for cond gust) .0psf; h=25ft elope) exterio -3-12, Interio 12-5-4, Inter 4 to 19-7-8 zr for members Lumber lane of the tru al to the face	; ; or r (1) rior one; and uss .),	102 uplif joint 13) This Intei R80 LOAD C	Ib uplift t at joint 2. truss is nationa 2.10.2 a ASE(S)	at join t 16, 2 s desig Il Resid and ref) Sta	ti 18, 56 lb uplift lb uplift at joint ned in accordar dential Code sec erenced standa ndard	4 and 24 lb uplif 4 and 24 lb uplif ce with the 2018 tions R502.11.1 d ANSI/TPI 1.	b ft at and
FORCES TOP CHORD	16=212 18=254 21=218 23=163 (lb) - Maximum Cor Tension 1-2=0/34, 2-4=-250 5-6=-108/69, 6-7=- 8-9=-85/67, 9-10=- 11-12=-133/65, 12-	(LC 25), 17=163 (LC 2 (LC 22), 19=218 (LC 2 (LC 21), 22=254 (LC 2 (LC 21), 24=215 (LC 2 (LC 27), 29=205 (LC 3 (LC 3) (LC 3), 29=205 (LC 3 (LC 3), 29=205 (LC 3 (LC 3), 29=205 (LC 3 (LC 3), 29=205 (LC 3 (LC 3), 29=205 (LC	22), 22), 24), 30) 5) , 0/34 7) 8) 9)	see Standarc or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= 0 Unbalanced design. This truss ha load of 12.0 p overhangs nr All plates are Gable require Gable studs :	Industry Gable En alified building desi 7-16; Pr=20.0 psf (L s=1.0; Rough Cat E 1.10 snow loads have be s been designed fo psf or 1.00 times fla on-concurrent with 2x4 MT20 unless of es continuous botto spaced at 2-0-0 oc.	(roof LL um DC 3; Fully een cor r greate t roof lo other liv otherwi m chor	Its as applicas is per ANSI/TI :: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 asidered for the er of min roof bad of 20.0 p: // / / / / / / / / / / / / / / / / / /	DIE, PI 1. 1.15 9; his f live sf on		Cannut .	to and the second second	SEA 458 NGIN	L 44 EEFRON	Summun

October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	E02	Common Girder	1	2	Job Reference (optional)	l61152075

TCDL

BCLL

BCDL

WFBS

WEBS

NOTES

oc.

1)

2)

3)

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:49 ID:xqX4xngTohNCmGDs_3fFtayzBHN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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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 bilding 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)

818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	EJ4	Jack-Open	9	1	Job Reference (optional)	161152076

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:50 ID:crXu80texbJNcE7reHwwFyyzBEX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



4-0-0

Scale = 1:29.7

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 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-MR	0.43 0.29 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.02 -0.02 -0.03	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 17 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 she 4-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 3= Mecha 5=0-5-8 Max Horiz 5=133 (LC Max Uplift 3=-92 (LC Max Grav 3=176 (LC (LC 21)	athing directly applie cept end verticals. applied or 10-0-0 oc unical, 4= Mechanical C 14) C 14), 4=-3 (LC 14) C 21), 4=72 (LC 7), 5	 6) * This truss on the botto 3-06-00 tall chord and a 7) Bearings ar crushing cal 8) Refer to girs 9) Provide men bearing plat 3 and 3 lb u 10) This truss is Internationa R802.10.2 a =307 	has been designed f m chord in all areas by 2-00-00 wide will ny other members. a assumed to be: , Jo pacity of 425 psi. ler(s) for truss to tru chanical connection (e capable of withstar plift at joint 4. designed in accorda Residential Code s nd referenced stand Standard	for a liv where fit betw oint 5 L ss con (by oth nding 9 ance w ections lard AN	e load of 20.1 a rectangle veen the bott Jser Defined nections. ers) of truss i 2 lb uplift at j ith the 2018 i R502.11.1 a ISI/TPI 1.	Opsf com to joint and					
FORCES TOP CHORD	(lb) - Maximum Com Tension 2-5=-284/85, 1-2=0/	pression/Maximum 39, 2-3=-143/87										
 BOT CHORD NOTES 1) Wind: ASC Vasd=103 Cat. II; Ex zone and exposed; members Lumber D 2) TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; 3) Unbalance design. 4) This truss load of 12 overhange 5) This truss chord live 	4-5=0/0 CE 7-16; Vult=130mph imph; TCDL=6.0psf; Bi p B; Enclosed; MWFR C-C Exterior(2E) zone end vertical left and rig and forces & MWFRS OL=1.60 plate grip DC CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L =1.15); Pf=20.0 psf (L =1.15); Pf=20.0 psf (L =1.10 ed snow loads have be has been designed for load nonconcurrent with of has been designed for load nonconcurrent withof	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and ri ght exposed;C-C for for reactions shown; λ =1.60 moof LL: Lum DOL=1 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9; even considered for this r greater of min roof I tr orof load of 20.0 psi other live loads. r a 10.0 psf bottom th any other live loads	ght .15 is ive f on is.						Continue	A STATE OF THE STA	SEA 4584	L OHNSULUIU

October 4,2023

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 Science United for the Structure Buckling Component Advance 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	134 Serenity-Roof-B328 A LH CP TMB	
24050082	EJ34	Jack-Open	2	1	Job Reference (optional)	161152077

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:50 ID:wY4gRT_LHtvJeN9W1caV_MyzBD5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





3x5 🛚

3-4-0

Plate Offsets	(X. Y):	[2:0-2-8.0-0-1]

Scale = 1:25.4

	() , E , J													
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCLL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing 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-MP	0.20 0.15 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.01 0.01	(loc) 5-8 5-8 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	2x4 SP No.2 2x4 SP No.2 Left 2x4 SP No.3 Structural wood she 3-4-0 oc purlins. Rigid ceiling directly bracing. (size) 2=0-5-8, 4 Mechanic Max Horiz 2=74 (LC Max Uplift 2=-18 (LC Max Grav 2=276 (LC 5=58 (LC (lb) - Maximum Com Tension 1-2=0/36, 2-4=-96/4 2-5=-110/78 CE 7-16; Vult=130mph mph; TCDL=6.0psf; Bi p B; Enclosed; MWFR C-C Exterior(2E) zone end vertical left and rig and forces & MWFRS OL=1.60 plate grip DC CE 7-16; Pr=20.0 psf (L 5); Is=1.0; Rough Cat E Ct=1.10 ed snow loads have be has been designed foi .0 psf or 1.00 times flat s non-concurrent with o	1-6-0 athing directly applie applied or 10-0-0 oc 4= Mechanical, 5= al 14) 2 14), 4=-44 (LC 14) 2 21), 4=124 (LC 21) 7) apression/Maximum 4 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterio ; cantilever left and r ght exposed;C-C for for reactions shown; V=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9 een considered for the r greater of min roof t roof load of 20.0 ps other live loads.	5) 6) (d or 7) (2 8) 9) 10), LC (), LC (), .15 ; is live f on	This truss ha chord live loi * This truss I on the botton 3-06-00 tall I chord and an Bearings are crushing cap Refer to gird Provide mec bearing plate 4 and 18 lb u) This truss is International R802.10.2 a DAD CASE(S)	as been designed ad nonconcurrent has been designe in chord in all area y 2-00-00 wide w hy other members assumed to be: wacity of 425 psi. concertise capable of withs uplift at joint 2. designed in acco Residential Code and referenced sta Standard	for a 10.0 with any d for a liv as where ill fit betw , , Joint 2 L truss conin n (by oth tanding 4 rdance wi e sections ndard AN	 a) psf bottom other live loae b) psf bottom other live loae b) psf bottom c) p	ads. Opsf om joint and				SEA 4584	ROLL L L OHNSOI	and an and a start of the start

October 4,2023

Page: 1

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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 outlapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria 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	134 Serenity-Roof-B328 A LH CP TMB	
24050082	F01	Common Supported Gable	1	1	Job Reference (optional)	161152078

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:51 ID:blbw4E4_5X0UgfFVg5xqNryzBV3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

:51 Page: 1



Scale = 1:35.9

Plate Offsets (X, Y): [15:0-3-0,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MSH	0.08 0.05 0.04	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: 74 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	LUMBER TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 OTHERS 2x4 SP No.3 BRACING TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. REACTIONS (size) 2=17-2-0, 10=17-2-0, 12=17-2-0, 13=17-2-0, 14=17-2-0, 12=17-2-0, 16=17-2-0, 17=17-2-0, 18=17-2-0, 19=17-2-0, 23=17-2-0 Max Horiz 2=-50 (LC 19), 19=-50 (LC 19) Max Uplift 2=-38 (LC 10), 10=-45 (LC 11), 12=-46 (LC 15), 13=-31 (LC 14), 17=-30 (LC 10), 18=-49 (LC 14), 17=-38 (LC 10), 18=-49 (LC 14), 19=-38 (LC 10), 23=-45 (LC 11) Max Grav 2=160 (LC 1), 10=160 (LC 1), 12=249 (LC 22), 15=135 (LC 22), 14=235 (LC 22), 15=135 (LC 22), 16=235 (LC 22), 17=203 (LC 21), 16=235 (LC 22), 17=203 (LC 22), 16=235 (LC 22), 15=155 (LC 22), 16=235 (L					 NOTES Unbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-8-0, Corner(3E) 15-2-8 to 18-2-8 zone; cantilever 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. TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.10 Unbalanced snow loads have been considered for this design. 							r others) of truss to ng 38 lb uplift at joint at joint 16, 30 lb 18, 38 lb uplift at joint ft at joint 12, 38 lb nt 10. ce with the 2018 tions R502.11.1 and d ANSI/TPI 1.	
FORCES TOP CHORD BOT CHORD WEBS	$\begin{array}{llllllllllllllllllllllllllllllllllll$					sh of 1.00 times in on-concurrent with 2x4 MT20 unless spaced at 2-0-0 of s been designed f id nonconcurrent as been designed n chord in all area: y 2-00-00 wide wi y other members.	at foor in other lin otherwi c. or a 10.1 with any for a liv s where Il fit betv	ve loads. se indicated.) psf bottom other live loac e load of 20.0 a rectangle veen the botto	is. psf			X	SEA 4584	EER.OT

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ENGINEERING BY AMITEK Affiliate

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	F02	Common	4	1	Job Reference (optional)	l61152079

-0-10-8

0-10-8

4-5-13

4-5-13

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:51









Scale = 1:36.7

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

-													
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	0.39	Vert(LL)	0.22	8-14	>949	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.70	Vert(CT)	-0.19	8-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.24	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MSH								
BCDL	10.0						-					Weight: 73 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 4-4-6 oc purlins. Rigid ceiling directly bracing. (size) 2=0-3-0, 6 Max Horiz 2=-50 (LC Max Uplift 2=-266 (L) Max Grav 2=816 (LC (lb) - Maximum Com Tension 1-2=0/17, 2-3=-1656	athing directly applie applied or 4-7-0 oc 3=0-3-0 19) C 10), 6=-266 (LC 1 ⁻¹ C 21), 6=816 (LC 22) pression/Maximum 5/1476, 3-4=-1134/12	4) 5) d or 6) 7) 1) 8) 8) 9) (5,	Unbalanced a design. This truss ha load of 12.0 p overhangs no This truss ha chord live loa * This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an One H2.5A S recommende UPLIFT at jt(and does not This truss is of International	snow loads have be s been designed fo on-concurrent with s been designed fo d nonconcurrent we as been designed fo d nonconcurrent we as been designed in n chord in all areas y 2-00-00 wide will y other members. impson Strong-Tie d to connect truss i s) 6 and 2. This cor consider lateral for designed in accord Residential Code s	r greate t roof k other liv r a 10.0 ith any for a liv where fit betw connec to bear nnection rces. ance w ections	er of min roo aad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20. a rectangle veen the bott ctors ng walls due n is for uplift ith the 2018 R502.11.1 a	his f live sf on ads. Opsf om e to only and					
BOT CHORD	2-6=-1340/1528	= 1030/1470, 0-7=0/	LC	AD CASE(S)	Standard	ard AN	151/1911.						
WEBS	4-8=-655/461, 3-8=-	547/253, 5-8=-547/2	53										
NOTES													
1) Unbalance this design	d roof live loads have	been considered for									G	WH CA	BO
 Wind: ASC Vasd=103r Cat. II; Exp zone and C 2-1-8 to 5-4 11-8-0 to 1 cantilever I right expos members a Lumber DC TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; C 	∠E 7-16; Vult=130mph mph; TCDL=6.0psf; B(D B; Enclosed; MWFR; C-C Exterior(2E) -0-10 8-0, Exterior(2E) 15 left and right exposed sed; porch left and righ and forces & MWFRS DL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (Li =1.15); Pf=20.0 psf (Li); Is=1.0; Rough Cat B Ct=1.10	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior 8 to 2-1-8, Interior (* 1 to 11-8-0, Interior (* -2-8 to 18-2-8 zone; ; end vertical left anc t exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9;	1) 1) 1 1 .15							O annum	SC.	SEA 4584 SEA 4584	L H H H NSO H N N N N N N N N N N N N N N N N N N

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818 Soundside Road Edenton, NC 27932

October 4,2023

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	G01	Common Supported Gable	1	1	Job Reference (optional)	161152080

Scale = 1:31.2 Loading

TCLL (roof)

Snow (Pf)

LUMBER

TOP CHORD

BOT CHORD

TCDL

BCLL

BCDL

WFBS

OTHERS

BRACING

TOP CHORD

BOT CHORD

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Page: 1



- Rigid ceiling directly applied or 6-0-0 oc bracing. **REACTIONS** (size) 8=7-1-0, 9=7-1-0, 10=7-1-0, 11=7-1-0, 12=7-1-0 Max Horiz 12=98 (LC 13) Max Uplift 8=-24 (LC 14), 9=-69 (LC 15), 11=-70 (LC 14), 12=-26 (LC 15) Max Grav 8=210 (LC 22), 9=220 (LC 22), 10=189 (LC 22), 11=219 (LC 21), 12=215 (LC 21) FORCES (Ib) - Maximum Compression/Maximum
- Tension TOP CHORD 2-12=-194/158, 1-2=0/62, 2-3=-48/62, 3-4=-76/138, 4-5=-75/137, 5-6=-38/61, 6-7=0/62, 6-8=-189/148 BOT CHORD 11-12=-47/104, 10-11=-47/104 9-10=-47/104, 8-9=-47/104
- WEBS 4-10=-147/0, 3-11=-188/142, 5-9=-189/150 NOTES
- Unbalanced roof live loads have been considered for 1) this design
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 1-11-8, Corner(3R) 1-11-8 to 5-11-8, Corner(3E) 5-11-8 to 8-8-8 zone; 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

- 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 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated. Truss to be fully sheathed from one face or securely 8)
- braced against lateral movement (i.e. diagonal web). Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * 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.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 12, 24 lb uplift at joint 8, 70 lb uplift at joint 11 and 69 lb uplift at joint 9.
- 13) N/a
- 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
- C (AND THE PARTY OF Stan www. SEAL 5844 minin October 4,2023

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818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	G02	Common	1	1	Job Reference (optional)	161152081

-0-10-8

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:52 ID:DP_INHM2klcG82JXPRIrjVyzBPX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





Scale = 1:35.5

Loading TCLL (roof)	(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15		CSI TC	0.37	DEFL Vert(LL)	in 0.01	(loc) 6-7	l/defl >999	L/d 240	PLATES MT20	GRIP 244/190	
Snow (Pf) TCDI	20.0 10.0	Lumber DOL Rep Stress Incr	1.15 YES		BC WB	0.14	Vert(CT) Horz(CT)	-0.01 0.00	6-7 6	>999 n/a	180 n/a			
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MP	0.00		0.00						
BCDL	10.0											Weight: 46 lb	FT = 20%	
LUMBER FOP CHORD 3OT CHORD WEBS BRACING FOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood sher 6-0-0 oc purlins, exc Rigid ceiling directly bracing.	t* 8-2,6-4:2x6 SP No athing directly applie cept end verticals. applied or 10-0-0 or	5) p.2 6) ed or 7) c	This truss ha load of 12.0 overhangs n This truss ha chord live lo * This truss on the botto 3-06-00 tall chord and a	as been designed psf or 1.00 times on-concurrent w as been designed has been design m chord in all are by 2-00-00 wide ny other member	d for greate s flat roof le ith other liv d for a 10.0 it with any ed for a liv eas where will fit betw rs.	er of min roof bad of 20.0 p re loads.) psf bottom other live loa e load of 20.1 a rectangle reen the bott	f live sf on ads. Opsf om						

- REACTIONS
 (size)
 6=0-3-0, 8=0-3-0

 Max Horiz
 8=98 (LC 13)

 Max Uplift
 6=-45 (LC 15), 8=-45 (LC 14)

 Max Grav
 6=498 (LC 22), 8=498 (LC 21)

 FORCES
 (lb) Maximum Compression/Maximum
- Tension TOP CHORD 1-2=0/62, 2-3=-334/302, 3-4=-334/302, 4-5=0/62, 2-8=-469/325, 4-6=-469/321 BOT CHORD 7-8=-95/89, 6-7=-8/12 WEBS 3-7=-207/129, 2-7=-137/187, 4-7=-116/187
- NOTES
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: AŠCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 5-8-8, Exterior(2E) 5-8-8 to 8-8-8 zone; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- One RT8A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at it(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.
- 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





Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	G03	Common	1	1	Job Reference (optional)	161152082

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:53 ID:?D?Cdqfir_mjeujLNBFiEnyzBP8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:35.5

Loading TCLL (roof) Snow (Pf) TCDL BCLL	(psf) 20.0 20.0 10.0 0.0*	Spacing 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-MP	0.44 0.14 0.08	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.01 -0.01 0.00	(loc) 5-6 5-6 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190
BCDL	10.0											Weight: 44 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 6-0-0 oc purlins, exi Rigid ceiling directly bracing. (size) 5=0-6-8, 7	t* 7-2,5-4:2x6 SP Ne athing directly applie cept end verticals. applied or 10-0-0 or 7=0-3-0	5) o.2 6) ed or 7) c 8)	This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar One RT8A M truss to bear	as been designed i psf or 1.00 times f on-concurrent with seen designed ad nonconcurrent nas been designed n chord in all area by 2-00-00 wide w by other members hiTek connectors r ing walls due to U	for great lat roof lo n other lif for a 10.1 with any d for a liv s where ill fit betw recomme PLIFT at	er of min roof bad of 20.0 p ve loads. D psf bottom other live loa e load of 20.1 a rectangle veen the bott ended to conrr jt(s) 7. This	Flive sfon ds. Opsf om nect					
	Max Honz 7=82 (LC Max Uplift 5=-23 (LC Max Grav 5=378 (LC	C 15), 7=-45 (LC 14) C 22), 7=450 (LC 21) 9)	connection is forces. One H2.5A \$	s for uplift only and Simpson Strong-Ti	d does n	ot consider la ctors	teral					
FORCES	(lb) - Maximum Com Tension	pression/Maximum		recommende	ed to connect truss	s to bear tion is fo	ing walls due	to nd					
TOP CHORD	1-2=0/43, 2-3=-327/3 2-7=-421/326, 4-5=- 6-7=-76/72, 5-6=0/0 2 6= 195/120 4 5	304, 3-4=-316/296, 350/259 181/107 - 2 6= 120/4	10	does not cor) This truss is International	designed in accor Residential Code	s. dance w sections	ith the 2018 R502.11.1 a	ind					
WEBS	3-0=-195/129, 4-0=-	181/197, 2-0=-139/1	197	R802.10.2 a	nd referenced star	ndard Ar	ISI/TPI 1.						
 I) Unbalanc this desig 2) Wind: AS Vasd=103 Cat. II; Ex zono and 	ed roof live loads have n. CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B(çp B; Enclosed; MWFR:	been considered fo (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterio	r r (2P)	DAD CASE(S)	Sianuaru					/	Juil'	OR EESS	ROLIN

- Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 4-7-4, Exterior(2E) 4-7-4 to 7-7-4 zone; end vertical left exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 2) TCUL+0SCE 7 46; Erc=20 opt (zot L) + Lum DOL=1.15
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.



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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	G04	Common Girder	1	2	Job Reference (optional)	l61152083

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:53 ID:mIX4RCA3yu3lhLxPq??YxdyzBOU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:36

Plate Offsets (X, Y): [6:0-3-12,0-1-8]

Loading (psf) TCLL (roof) 20.0 Snow (Pf) 20.0 TCDL 10.0 3CLL 0.0* 3CDL 10.0	Spacing2:Plate Grip DOL1.Lumber DOL1.Rep Stress IncrNCodeIF	-0-0 15 15 O RC2018/TPI2014	CSI TC 0.34 BC 0.86 WB 0.07 Matrix-MSH	DEFL in Vert(LL) -0.12 Vert(CT) -0.19 Horz(CT) 0.00	(loc) 5-6 5-6 4	l/defl >727 >445 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 84 lb	GRIP 244/190 FT = 20%
LUMBER IOP CHORD 2x4 SP No.2 3OT CHORD 2x6 SP No.2 WEBS 2x4 SP No.3 *Exc 3RACING IOP CHORD Structural wood sh 6-0-0 oc purlins, e 3OT CHORD Rigid ceiling direct bracing. REACTIONS (size) 4=0-5-8 Max Horiz 6=57 (L Max Uplift 4=-173 Max Grav 4=841 (FORCES (lb) - Maximum Co Tension IOP CHORD 1-2=-97/64, 2-3=-1 3OT CHORD 5-6=-57/55, 4-5=-1 WEBS 2-5=-132/65, 3-5= NOTES 1) 2-ply truss to be connected tog (0.131*x3*) nails as follows: Top chords connected as follow oc, 2x6 - 2 rows staggered at 0-9-0 oc. Web connected as follows: 2x4 2 rows staggered at 0-9-0 oc. Web connected as follows: 2x4 2 rows staggered at 0-9-0 oc. Web connected as follows: 2x4 2 rows staggered at 0-9-0 oc. 2) All loads are considered equal except if noted as front (F) or b CASE(S) section. Ply to ply co provided to distribute only load unless otherwise indicated. 3) Unbalanced roof live loads hav this design.	ept* 4-3,1-6:2x6 SP No.2 eathing directly applied or except end verticals. ly applied or 10-0-0 oc 6 = 0-3-0 C 9) (LC 13), 6=-160 (LC 12) LC 19), 6=799 (LC 18) mpression/Maximum 31/92, 3-4=-91/78 39/605 622/188, 1-6=-210/76 ether with 10d ws: 2x4 - 1 row at 0-9-0 l-9-0 oc. ollows: 2x6 - 2 rows 4 - 1 row at 0-9-0 oc, 2x6 - y applied to all plies, ack (B) face in the LOAD nnections have been s noted as (F) or (B), re been considered for	 4) Wind: ASCE Vasd=103mp Cat. II; Exp E zone; end ve exposed; Luu 5) TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct 6) Unbalanced design. 7) This truss ha chord live loa 8) * This truss f on the bottor 3-06-00 tall t chord and ar 9) Bearings are capacity of 5 10) One H2.5A S recommende UPLIFT at jt(and does noi 11) This truss is International R802.10.2 at 12) Use Simpsor Truss, Single oc max. start connect truss 13) Fill all nail ho LOAD CASE(S) 1) Dead + Snc Increase=1 Uniform Loa Vert: 1-2: Concentratt Vert: 5=- 	7-16; Vult=130mph (3-sec ob; TCDL=6.0psf; BCDL=6 8; Enclosed; MWFRS (enve intical left exposed; porch le mber DOL=1.60 plate grip I 5.7-16; Pr=20.0 psf (roof LL .15); Pf=20.0 psf (Lum DO ls=1.0; Rough Cat B; Fully =1.10 snow loads have been con as been designed for a 10.0 ad nonconcurrent with any has been designed for a 10.0 ad nonconcurrent with any has been designed for a 10.0 ad nonconcurrent with any has been designed for a 10.0 as sumed to be: Joint 6 SF 65 psi. Simpson Strong-Tie connect do to connect truss to beari s) 6 and 4. This connection t consider lateral forces. designed in accordance wi Residential Code sections and referenced standard AN n Strong-Tie LUS26 (4-10d e Ply Girder) or equivalent s ing at 1-11-4 from the left of S(es) to back face of botton ples where hanger is in con Standard bw (balanced): Lumber Incr .15 ads (lb/ft) =-60, 2-3=-60, 4-6=-20 ed Loads (lb) 314 (B), 7=-314 (B), 8=-314	ond gust) .0psf; h=25ft; elope) exterior aft and right DOL=1.60 : Lum DOL=1.15 L=1.15 Plate Exp.; Ce=0.9; usidered for this 0 psf bottom other live loads. e load of 20.0psf a rectangle ween the bottom P No.2 crushing tors ng walls due to h is for uplift only th the 2018 R502.11.1 and ISI/TPI 1. Girder, 3-10d spaced at 2-0-0 end to 5-11-4 to n chord. tact with lumber. rease=1.15, Plate 4 (B)				SEA 4584	L DHNSOLUTION

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Vert: 5=-314 (B), 7=-314 (B), 8=-314 (B)

818 Soundside Road Edenton, NC 27932

October 4,2023

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	H01	Monopitch	1	1	Job Reference (optional)	161152084

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:54 ID:1aYKOOAVMhpxxEzIlwYOtKyzBSM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Scale = 1:34.6

Plate Offsets (X, Y): [2:Edge,0-1-1], [2:0-2-10,Edge], [6:Edge,0-3-8], [6:0-2-8,0-5-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL	(psf) 20.0 20.0 10.0 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 Matrix-MR	0.61 0.54 0.01	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.10 -0.09 -0.01	(loc) 7-8 7-8 2	l/defl >832 >923 n/a	L/d 240 180 n/a	PLATES MT20 MT20HS	GRIP 244/190 187/143	
3CDL LUMBER TOP CHORD 3OT CHORD WEBS DTHERS WEDGE BRACING TOP CHORD 3OT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Wind: ASC Vasd=103 Cat. II; Ex zone and 2-1-8 to 3- cantilever left and rig MWFRS fi grip DOL=	10.0 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Left: 2x4 SP No.3 Structural wood shee 6-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 2=0-3-0,1 Max Horiz 2=73 (LC Max Uplift 2=-137 (L Max Grav 2=471 (LC (lb) - Maximum Com Tension 1-2=0/18, 2-3=-297/3 4-5=-256/307, 5-6=-3 2-8=-358/266, 7-8=-3 4-7=-59/38, 3-8=-64/3 CE 7-16; Vult=130mph imph; TCDL=6.0psf; BG p B; Enclosed; MWFR; C-C Exterior(2E) -0-10 9-0, Exterior(2E) 3-9-0 left exposed; C-C for me or reactions shown; Lu e1.60	athing directly applied cept end verticals. applied or 8-4-10 oc 4=0-1-8 10) C 10), 14=-99 (LC 10 2 21), 14=313 (LC 21 pression/Maximum 300, 3-4=-279/305, 270/173 358/266, 6-7=-358/20 (37, 5-14=-337/457 (3-second gust) (3-second gust) (3-	3) 4) 5) d or 6) 7 8) 9) 10) 10) 10) 10) 10) 10) 10) 10	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct Unbalanced design. This truss ha load of 12.0 overhangs nr All plates are Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss for on the bottor on the bottor and ar Bearing at jo using ANSI/T designer sho Provide mec bearing plate One H2.5A S recommende Del IT at jt(only and doe This truss is International R802.10.2 ar AD CASE(S)	7-16; Pr=20.0 psf 15); Pf=20.0 psf is=1.0; Rough Cat 1.10 snow loads have b is been designed f port concurrent with MT20 plates unles spaced at 2-0-0 ou s been designed f ad nonconcurrent to ab been designed f ad nonconcurrent to a been designed f ad nonconcurrent to ad nonconcurrent to	f (roof LL (Lum DC B; Fully been cor for great lat roof k o other lines sother c. for a 10. with any d for a 10. with any d for a liv s where ill fit betw s so a so o f bear n formula y of bear n (by oth e connect s to bear connect eral force dance w sections indard AN	:: Lum DOL= DL=1.15 Plate Exp.; Ce=0.1 asidered for t er of min rool bad of 20.0 p re loads. wise indicate D psf bottom other live load e load of 20.1 a rectangle veen the bott to grain valu a. Building ng surface. ers) of truss to ctors ing walls due on is for uplif es. ith the 2018 is R502.11.1 a ISI/TPI 1.	1.15 9; his f live sf on ed. dds. Opsf om le to t t		C		Weight: 32 lb	FT = 20%	
only. For see Stand or consult	studs exposed to wind ard Industry Gable End qualified building desig	(normal to the face), d Details as applicab gner as per ANSI/TP	le, ∣1.								I.A.	NORE NGIN	EEP. ON	

- left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

annun JO minin October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	H02	Monopitch	5	1	Job Reference (optional)	161152085

-0-10-8

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:54 ID:KTXq?QfDiHz7LXcdC1n?2_yzBRj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:32.2

Plate Offsets (X, Y): [2:Edge,0-1-1], [2:0-2-10,Edge], [4:0-2-8,0-1-0]

,														
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	0.80	Vert(LL)	0.27	4-9	>303	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.67	Vert(CT)	-0.21	4-9	>382	180			
TCDL	10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	-0.03	2	n/a	n/a			
BCLL	0.0*	Code	IRC2018/	TPI2014	Matrix-MP									
BCDL	10.0											Weight: 29 lb	FT = 20%	
LUMBER			4)	This truss ha	s been designed f	for great	er of min roof	flive						
TOP CHORD	2x4 SP No.2			load of 12.0	psf or 1.00 times f	lat roof lo	oad of 20.0 p	sf on						
BOT CHORD	2x4 SP No.2			overhangs n	on-concurrent with	other liv	ve loads.							
WEBS	2x4 SP No.3		5)	This truss ha	s been designed f	for a 10.0	0 psf bottom							
OTHERS	2x4 SP No.3		C	chord live loa	ad nonconcurrent	with any	other live loa	ads.						
WEDGE	Left: 2x4 SP No.3		6)	* This truss h	has been designed	tor a liv	e load of 20.0	Upsf						
BRACING				on the botton	n chord in all area	s where	a rectangle							
TOP CHORD	Structural wood she	athing directly applie	d or	chord and ar	y ∠-00-00 wide wi y other members.	III TIT DÉTV		un						
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc	; 7)	Bearing at jo using ANSI/1	int(s) 4 considers PI 1 angle to grai	parallel t n formula	to grain value a. Building	9						
REACTIONS	(size) 2=0-3-0 4	4=0-1-8		designer sho	uld verify capacity	of bear	ing surface.							
	Max Horiz 2=73 (LC	10)	8)	Provide mec	nanical connection	n (by oth	ers) of truss f	to						
	Max Uplift 2=-134 (I	C(10) = 4 = -102 (I C 1)	0) 0)	bearing plate	e at joint(s) 4.		- 4							
	Max Grav 2=460 (LC	C 21), 4=324 (LC 21)	9)	Une H2.5A S	simpson Strong-Li	e conne	ciors ing walls due	to						
FORCES	(lb) - Maximum Com	pression/Maximum		I IPI IFT at it/	s) 2 and 4 This of	onnectio	n is for unlift	only						
	Tension	.p. ccolori maximum		and does not	t consider lateral f	orces		Uniy						
TOP CHORD	1-2=0/18, 2-3=-109/	182. 3-4=-227/211	10)	This truss is	designed in accor	dance w	ith the 2018							
BOT CHORD	2-4=-227/124		10)	International	Residential Code	sections	R502.11.1 a	and						
NOTES				R802.10.2 ar	nd referenced star	ndard AN	ISI/TPI 1.							
1) Wind ASC	°E 7-16: \/ult=130mph	(3-second quet)	LO	AD CASE(S)	Standard							ann	111.	
Vasd=102	Smoh: TCDI -6 Opef: R	CDI -6 Onst h-25ft	-07									1111110	1 Dille	
Cat II: Evi	n B: Enclosed: MM/FR	S (envelone) exterior								-	1	THUR	NO !!!	
zone and (C-C Exterior(2E) -0-10	-8 to 2-1-8. Interior (1)								1.5	n'i zer	1.	1
2-1-8 to 3-	-9-0. Exterior(2E) 3-9-0) to 6-9-0 zone:	• /								1.2	· OFE	mina	in
cantilever	left exposed : end vert	tical left exposed: po	rch								\mathcal{N}	Non	1.	
left and rig	pht exposed;C-C for me	embers and forces &								<u> </u>		· × /	<u> </u>	-
MWFRS fo	or reactions shown; Lu	mber DOL=1.60 plat	e							-	:	SEA	d. 🚯	Ξ
grip DOL=	=1.60									-				Ξ
2) TCLL: AS	CE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1	.15									4584	44 🔅	
Plate DOL	_=1.15); Pf=20.0 psf (L	um DOL=1.15 Plate								-		•		5
DOL=1.15	5); Is=1.0; Rough Cat B	3; Fully Exp.; Ce=0.9	;										- · · · >	1
Cs=1.00; (Ct=1.10										:11	L'SNOW	EEM. OF	1
Unbalance	ed snow loads have be	en considered for th	is								1	ON HIN	F.F. G.	5
design.											1	TEMI	OHN	T.C.
												The J	C IIII	
												Octob	er 4 2023	

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818 Soundside Road Edenton, NC 27932

October 4,2023

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	H03	Monopitch	1	1	Job Reference (optional)	161152086

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:54 ID:qsbcfelXa5E8GwWwy0z5_xykdBf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Scale = 1:29.5

Plate Offsets (X, Y): [1:Edge,0-1-1], [1:0-2-10,Edge], [3:0-2-8,0-1-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 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	0.83 0.72 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.29 0.23 -0.03	(loc) 3-8 3-8 1	l/defl >282 >354 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 28 lb	GRIP 244/190 FT = 20%
TOP CHORD BOT CHORD WEBS OTHERS WEDGE BRACING TOP CHORD BOT CHORD CALL SCORD CALL SCORD CALL SCORD	2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Left: 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 1=0-3-0,3 Max Horiz 1=62 (LC Max Uplift 1=-97 (LC Max Grav 1=376 (LC (lb) - Maximum Com Tension 1-2=-189/265, 2-3=-2 1-3=-313/213 CE 7-16; Vult=130mph Sp B; Enclosed; MWFR3 C-C Exterior(2E) 0-0-0 -9-0, Exterior(2E) 3-9-0 left exposed ; porch left Debrs and forces & MW mber DOL=1.60 plate CE 7-16; Pr=20.0 psf (L =-1.15); Is=1.0; Rough Cat B Ct=1.10 ed snow loads have be has been designed for load nonconcurrent with	athing directly applied cept end verticals. applied or 10-0-0 oc 3=0-1-8 14) 10), 3=-106 (LC 10) 2 20), 3=334 (LC 20) pression/Maximum 232/219 (3-second gust) CDL=6.0psf; h=25ft; 5 (envelope) exterior to 3-0-0, Interior (1) to 6-9-0 zone; ft and right exposed; (FRS for reactions grip DOL=1.60 roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for this a 10.0 psf bottom th any other live load:	6) 1 or 7) 8) 9) LO 15 5.	on the botton 3-06-00 tall b chord and an Bearing at joi vising ANSI/T designer sho Provide mech bearing plate One H2.5A S recommende UPLIFT at jt(and does not This truss is of International R802.10.2 ar AD CASE(S)	an chord in all areas y 2-00-00 wide will y other members. int(s) 3 considers p PI 1 angle to grain uld verify capacity hanical connection at joint(s) 3. impson Strong-Tie d to connect truss s) 1 and 3. This co consider lateral fo designed in accord Residential Code s and referenced stand Standard	where I fit betw arallel t formula of beari (by oth connection rces. ance wi sections dard AN	a rectangle veen the bott o grain value a. Building ng surface. ers) of truss t ctors ng walls due n is for uplift ith the 2018 R502.11.1 a ISI/TPI 1.	om to to only and				SEA 4584	L DHNSONIUM

October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	H04	Monopitch	3	1	Job Reference (optional)	161152087

6-4-8

6-4-8

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:54 ID:9RTNzvL_Ho91hITa2VJNs?yzBQq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

6-8-0

0-3-8

Page: 1



Scale = 1:30.6

Plate Offsets (X, Y): [1:0-2-0,0-1-7]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 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	0.83 0.74 0.07	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.29 0.23 -0.04	(loc) 6-9 6-9 1	l/defl >261 >326 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 25 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD 2x4 3 BOT CHORD 2x4 4 BOT CHORD 2x4 5 SLIDER Left 3 BRACING TOP CHORD Strue 6-0-4 BOT CHORD Rigit brac REACTIONS (size) Max H Max C FORCES (lb) - Tens TOP CHORD 1-3= BOT CHORD 1-6= WEBS 3-6= NOTES 1) Wind: ASCE 7-11 Vasd=103mph; T Cat. II; Exp B; Er zone and C-C Es 3-0-0 to 3-8-0, E: left and right exp MWFRS for reac grip DOL=1.60 2) TCLL: ASCE 7-1 Plate DOL=1.15); Is=1 Cat. II; Exp B; Er Zone and C-C Es 3-0-0 to 3-8-0, E: left and right exp MWFRS for reac grip DOL=1.60 2) TCLL: ASCE 7-1 Plate DOL=1.15); Is=1 CS=1.00; Ct=1.11 3) Unbalanced snord design. 4) This truss has be chord live load n	SP No.2 SP No.2 SP No.3 2x4 SP No.3 1 ctural wood shee 0 oc purlins. d ceiling directly ing. 1 = Mecha doriz 1=61 (LC Jplift 1=-85 (LC Grav 1=334 (LC Maximum Com sion -317/579, 3-4=- -383/396, 5-6=0 -258/220 6; Vult=130mph fclosed; MWFR: cterior(2E) 3-8-0 osed;C-C for mo terior(2E) 3-8-0 osed;C-C for mo tions shown; Lu 6; Pr=20.0 psf (L 0; Rough Cat E 0 w loads have be een designed for onconcurrent wi	I-6-0 athing directly applied applied or 10-0-0 oc nical, 6= Mechanical 10) 10), 6=-109 (LC 10) 20), 6=366 (LC 20) pression/Maximum 6/0 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior to 3-0-0, Interior (1) to 6-8-0 zone; porcf embers and forces & mber DOL=1.60 plate roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi a 10.0 psf bottom th any other live load	5) * This truss h on the bottor 3-06-00 tall b chord and ar 6) Refer to gird 7) Provide mec bearing plate 1 and 109 lb 8) This truss is International R802.10.2 ar LOAD CASE(S) 15 s s.	has been designed for in chord in all areas w y 2-00-00 wide will f yo other members. ar(s) for truss to truss hanical connection (l capable of withstan upift at joint 6. designed in accorda Residential Code se and referenced standa Standard	or a liv/ where it betw s conn by othe ding 8 nce wii cctions ard AN	e load of 20.6 a rectangle veen the botto ections. ers) of truss t 5 lb uplift at ju th the 2018 R502.11.1 a ISI/TPI 1.	Dpsf on oint ind		Continue.	La	SEA 4584	ROL 4 4 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Summing.



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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	HJ211	Jack-Open Structural Gable	1	1	Job Reference (optional)	161152088

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:55 ID:sO9akXcGp1tsoTjN9u??hcyzBDb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:30.7

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	0.36	Vert(LL)	0.00	6-7	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	6-7	>999	180			
TCDI	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a			
BCU	0.0*	Code	IRC2018/TPI201	4 Matrix-MP	0.01		0.00	0					
BCDL	10.0		11(02010,111201								Weight: 19 lb	FT = 20%	
	2x4 SP No 2	•	6) * This t	russ has been design	ed for a liv	e load of 20.0 a rectangle	Opsf						_
BOT CHORD	2x4 SP No 2		3-06-0) tall by 2-00-00 wide	will fit hetw	veen the bott	nm						
WERS	2x4 SP No 3		chord a	and any other member	rs		0111						
	244 01 110.0		7) Refer t	and any early for truss to	o truss con	nections							
BRACING	o		, 8) One R	F8A MiTek connectors	s recomme	nded to conn	ect						
	2-11-10 oc purlins,	except end verticals.	truss to	bearing walls due to	UPLIFT at	jt(s) 7 and 6	ler						
BOT CHORD	Rigid ceiling directly bracing.	applied or 10-0-0 oc	lateral	forces.		ith the 2019							
REACTIONS	(size) 6= Mecha Max Horiz 7=59 (LC Max Uplift 6=-31 (LC Max Grav 6=114 (LC	anical, 7=0-9-7 14) C 14), 7=-44 (LC 10) C 21), 7=372 (LC 21)	9) This th Interna R802.1 LOAD CAS	tional Residential Coc 0.2 and referenced st SE(S) Standard	de sections tandard AN	SI/TPI 1.	Ind						
FORCES	(lb) - Maximum Com	pression/Maximum											
TOP CHORD	1-2=0/67, 2-3=-70/2 2-7=-347/222	5, 3-4=-11/0,											
BOT CHORD	6-7=-132/25, 5-6=0/	0											
WEBS	3-6=-83/31 2-6=-26	/138											
NOTES	00000,20 20	,100											
1) Wind AS	CE 7-16: Vult-130mph	(3-second quist)											
Vasd=103 Cat. II; Ex zone and exposed;(reactions DOL=1.60	Barph; TCDL=6.0psf; Bi p B; Enclosed; MWFR C-C Corner (3) zone; e C-C for members and fi shown; Lumber DOL=)	CDL=6.0psf; h=25ft; S (envelope) exterio end vertical left orces & MWFRS for 1.60 plate grip	r						6		OR HESS	ROLLA	,
 TCLL: AS Plate DOL DOL=1.15 Cs=1.00: 	CE 7-16; Pr=20.0 psf (_=1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat E Ct=1.10	roof LL: Lum DOL=1 um DOL=1.15 Plate 3; Fully Exp.; Ce=0.9	l.15 ;								SEA	L	
3) Unbalanc	ed snow loads have be	en considered for th	is								4004	m / E	
design.												1. 5	
This truss	has been designed for	r greater of min roof	live							-7	1. SNO	-6R: 53	
load of 12	.0 pst or 1.00 times fla	t root load of 20.0 ps	st on							1	GIN	E.F. CUN	
overhang	s non-concurrent with c	other live loads.								1	PEL	OUN IN	
 This truss chord live 	has been designed for load nonconcurrent wi	r a 10.0 psf bottom ith any other live load	ds.								THE VV J	Onini	

October 4,2023

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Lengineering By A Mitek Attilia

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	J01	Half Hip Girder	1	1	Job Reference (optional)	161152089

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:55 ID:5fFqIE7FhFHmT3VeBQG4whyzBCw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

-0-10-8 4-0-0 1-7-3 3-8-8 1 0-10-8 2-1-5 0-3-8

NAILED

NAILED



Special



NAILED

Scale = 1:42.3

Plate Offsets (X	, Y):	[3:0-6-4,0-2-0]
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						_								
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018/	TPI2014	CSI TC BC WB Matrix-MP	0.16 0.06 0.06	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 8 8 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 29 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103r Cat. II; Exp zone; end v grip DOL= DOL=1.15) Cs=1.00; C 4) Unbalance design.	2x4 SP No.2 2x6 SP No.2 2x4 SP No.3 Structural wood she: 4-0-0 oc purlins; exi 2-0-0 oc purlins; 3-5 Rigid ceiling directly bracing. (size) 7= Mecha Max Horiz 9=64 (LC Max Grav 7=344 (LC (lb) - Maximum Com Tension 1-2=0/63, 2-3=-247/4 2-9=-380/62 8-9=-68/32, 7-8=-47/ 3-8=-11/95, 2-8=-30/ 3-7=-204/64 d roof live loads have E 7-16; Vult=130mph mph; TCDL=6.0psf; B(9 B; Enclosed; MWFR3 vertical left exposed; L 1.60 2E 7-16; Pr=20.0 psf (Li 1; Is=1.0; Rough Cat B 2;=1.10 d snow loads have be	athing directly applie cept end verticals, ar applied or 10-0-0 oc nical, 9=0-5-8 12) 33), 9=-60 (LC 12) 33), 9=406 (LC 34) pression/Maximum 46, 3-4=0/0, 4-5=0/0 /149, 6-7=0/0 /157, 4-7=-151/46, been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior umber DOL=1.60 pl roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; ten considered for the	5) 6) 7) d or 8) 9) 10) 11) , 12) 13) 14) 15) ate .15 16) LOA is 1)	This truss ha load of 12.0 p overhangs no Provide adeq This truss ha chord live load this truss ha on the botton 3-06-00 tall b chord and an Refer to girde Provide mech bearing plate 7. One H2.5A S recommende UPLIFT at jt(does not con This truss is of International R802.10.2 ar Graphical pui or the orienta bottom chord "NAILED" inc (0.148"x3.25' Hanger(s) or provided suff Ib down and i design/select responsibility In the LOAD of the truss a AD CASE(S) Dead + Sno Increase=1. Uniform Loa Vert: 1-2=	s been designed fo sof or 1.00 times fla an-concurrent with uate drainage to pus s been designed fo d nonconcurrent with as been designed fo n chord in all areas y 2-00-00 wide will y other members. r(s) for truss to trus nanical connection capable of withsta impson Strong-Tie d to connect truss is s) 9. This connection capable of withsta is connect truss is s) 9. This connection capable of withsta is connect truss is s) 9. This connection clisider lateral forces. Jesigned in accord: Residential Code s di referenced stand- tion of the purlin al CASE(S) section, I re noted as front (F Standard w (balanced): Lum 15 ds (lb/ft) =-60, 2-3=-60, 3-5=	r greate troof k other liv revent v r a 10.0 ith any for a liv where fit betw ss conr (by oth nding 7 connec to bear on is for ance w sections dard AN does no ong the 8"x3") c S guidli evice(s ncentra n botto tion de oads alf) or ba ber Inc -60, 6-5	er of min roof 1 and of 20.0 ps re loads. water ponding 0 psf bottom other live load e load of 20.0 a rectangle veen the botto ections. ers) of truss to 0 lb uplift at jo ctors ng walls due 1 uplift only an ith the 2018 R502.11.1 ar (SI/TPI 1. ot depict the si top and/or r 3-12d nes.) shall be ted load(s) 12 m chord. The vice(s) is the oplied to the fa ck (B). rease=1.15, P	live if on ds. psf on bint to d d ize 21 ace Plate	Cc	Vert: 3=	ted Loa -64 (B)	ads (lb) , 8=-121 (B), 10=	-65 (B), 11=-30 (ROLLING A E.F.R. OLING A E.F.R. OLING A DHNSOLIN	B)

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	J02	Half Hip	1	1	Job Reference (optional)	161152090

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:56 ID:oyh2Rm0XL_ipQxTyo5dVCHyzBEM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Scale = 1:48.3

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

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		тс	0.16	Vert(LL)	0.01	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.21	Vert(CT)	-0.02	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.07	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018	/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 28 lb	FT = 20%
LUMBER			5)	This truss ha	s been designed fo	r great	er of min roof	live					
TOP CHORD	2x4 SP No.2			load of 12.0	osf or 1.00 times fla	t roof le	oad of 20.0 p	sf on					
BOT CHORD	2x4 SP No.2			overhangs n	on-concurrent with	other liv	/e loads.						
WEBS	2x4 SP No.3		6)	Provide adec	luate drainage to pr	event	vater ponding	g.					
BRACING			7)	This truss ha	s been designed to	ra 10.0) pst bottom	do					
TOP CHORD	Structural wood shea	athing directly applie	ed or	* This truce h	a nonconcurrent w	in any	other live loa	las. Doct					
	4-0-0 oc purlins, exc	cept end verticals, ar	nd ^{o)}	on the bottor	n chord in all areas	where	e loau of 20.0	ры					
	2-0-0 oc purlins: 3-5.	applied or 10,0,0 or		3-06-00 tall b	v 2-00-00 wide will	fit betv	een the bott	om					
BUICHORD	bracing	applied or 10-0-0 oc	;	chord and ar	y other members.								
REACTIONS	(size) 7- Mecha	nical 9-0-5-8	9)	Refer to gird	er(s) for truss to tru	iss con	nections.						
REAGINGING	Max Horiz 9=100 (I C	2 14)	10)	One RT8A M	Tek connectors re	comme	nded to conr	nect					
	Max Uplift 7=-51 (LC	: 14)		truss to bear	ng walls due to UP	LIFT at	jt(s) 7. This						
	Max Grav 7=175 (LC	C 35), 9=312 (LC 36))	connection is	for uplift only and o	does no	ot consider la	teral					
FORCES	(lb) - Maximum Com	pression/Maximum	11)	This trues is	designed in accord	ance w	ith the 2018						
	Tension		,	International	Residential Code s	ections	R502.11.1 a	and					
TOP CHORD	1-2=0/63, 2-3=-111/4	41, 3-4=0/0, 4-5=0/0	,	R802.10.2 a	nd referenced stand	lard AN	ISI/TPI 1.						
	2-9=-246/45		12)	Graphical pu	rlin representation of	does no	ot depict the	size					
BOT CHORD	8-9=-218/147, 7-8=0	0/0, 6-7=0/0		or the orienta	tion of the purlin al	ong the	top and/or						
WEBS	3-8=-89/106, 2-8=-14	49/221, 4-7=-94/26		bottom chord									
NOTES			LO	AD CASE(S)	Standard							minin	Ullin,
1) Unbalance	ed roof live loads have	been considered for	•								. 5	WAH CA	Rollin
2) Wind: ASC	1. CE 7 16: \/ult_120mph	(2 second quist)									J.	Rice	1. 4/1º1
2) Wind. ASC Vasd-103	SE 7-10, $Vuit=13011p11$	CDI -6 Onsf: h-25ft:									33	U.FE95	QN: Kar
Cat. II: Ex	p B: Enclosed: MWFR	S (envelope) exterior	r								in	sign p	Man and
zone and	C-C Exterior(2E) -0-10	-8 to 2-1-8, Exterior(2R)								()	.4	1.1.2
2-1-8 to 2-	-9-10, Exterior(2E) 2-9-	-10 to 4-0-0 zone; er	nd									SEA	L 1 1
vertical lef	t exposed;C-C for men	nbers and forces &								-		4504	
MWFRS fo	or reactions shown; Lu	mber DOL=1.60 plat	te							=		4064	r4 ; :
grip DOL=	:1.6U CE 7 16: Dr - 20.0		15										1.3
3) ICLL: ASI	-1 15): PI=20.0 PSI (I	um DOI -1 15 Plate	.10								:7	·	A:23
DOI = 1.15	i): Is=1 0: Rough Cat B	Fully Exp · Ce=0.9									11	GIN	Et ON
Cs=1.00; 0	Ct=1.10	,, _ , co-o.o	,								11	AFIA	UN III

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

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818 Soundside Road Edenton, NC 27932

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October 4,2023

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLC1	Valley	1	1	Job Reference (optional)	161152091

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:56 ID:MUJwr2X04VK7oB8VeTRuFYyzBGG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:49.3

Loading TCLL (roof) Snow (Pf) TCDL BCLL	(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MSH	0.31 0.17 0.15	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 7	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 244/190	
LUMBER	2x4 SP No.2		4) Unbalanced design.	snow loads have t	peen cor	sidered for th	his						
WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, exx Rigid ceiling directly bracing. (size) 1=9-6-3.5	athing directly applie sept end verticals. applied or 10-0-0 oc j=9-6-3, 6=9-6-3, 7=	6 7 ed or ⁸ 5 9-6-3	 Gable requir) Gable studs This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar Provide mec 	es continuous bott spaced at 4-0-0 oc spaced at 4-0-0 oc sis been designed n chord in all areas by 2-00-00 wide wi y other members, hanical connection	or a 10.0 or a 10.0 with any I for a liv s where Il fit betv with BC n (by oth) psf bottom other live loa e load of 20.0 a rectangle veen the botto DL = 10.0psf ers) of truss t	ads. Opsf om f. to						
	Max Horiz 1=249 (LC Max Uplift 1=-64 (LC 6=-135 (L Max Grav 1=180 (LC 6=508 (LC	C 14) 12), 5=-30 (LC 16), C 14), 7=-100 (LC 1- C 14), 5=218 (LC 5), C 5), 7=307 (LC 23)	⁴⁾ 1	bearing plate 1, 30 lb uplift uplift at joint 0) This truss is International R802.10.2 at	 capable of withsta at joint 5, 135 lb u 7. designed in accord Residential Code nd referenced stan 	anding 6 iplift at jo dance w sections idard AN	4 lb uplift at j bint 6 and 100 ith the 2018 i R502.11.1 a ISI/TPI 1.	ioint 0 Ib and						
TOP CHORD	(ib) - Maximum Com Tension 1-2=-433/212, 2-3=-3 4-5=-171/114	317/151, 3-4=-156/8	L 3,	OAD CASE(S)	Standard									
BOT CHORD WEBS	1-7=-51/13, 6-7=-3/5 3-6=-393/290, 2-7=-2	i, 5-6=-3/5 227/184											u7.	
 VOTES Wind: ASC Vasd=103 Cat. II; Exj zone and I 3-0-5 to 5- for membe Lumber DU Truss des only. For see Stand or consult TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; (CE 7-16; Vult=130mph imph; TCDL=6.0psf; B(p B; Enclosed; MWFR; C-C Exterior(2E) 0-0-5 -1-13, Exterior(2R) 5-1- ers and forces & MWFF OL=1.60 plate grip DO Signed for wind loads ir studs exposed to wind ard Industry Gable Ene qualified building desig (E 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L i); Is=1.0; Rough Cat B Ct=1.10	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior to 3-0-5, Interior (1) -13 to 9-4-12 zone;C RS for reactions shor L=1.60 the plane of the true (normal to the face) d Details as applicab gner as per ANSI/TP roof LL: Lum DOL=1 try DOL=1.15 Plate ; Fully Exp.; Ce=0.9	r 							Carl Carl Carl Carl Carl Carl Carl Carl	No. 19	SEA 4584	RO L 44 0HN501 er 4,2023	

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 **ANS/ITPI1 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.sbcaccomponents.com)



Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLC2	Valley	1	1	Job Reference (optional)	161152092

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:57 ID:BehB56cngL4GW6cf?kYJVpyzBGA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

8-3-13 _ 2x4 II 3 10 2x4 II 2 6-11-7 6-11-7 9 8 12 10 Г 0-0 1 4 5 11 2x4 II 2x4 II 2x4 🥠

8-3-13

Scale = 1:42.3

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Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing 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-MP	0.35 0.20 0.11	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: 42 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 Structural w 6-0-0 oc pur Rigid ceiling bracing. (size) 1 Max Horiz 1 Max Uplift 4 Max Grav 1	2 2 3 3 rood shea rlins, exc g directly =8-3-13, =223 (LC =-29 (LC =-29 (LC =-552 (LC	athing directly applie expt end verticals. applied or 10-0-0 oc 4=8-3-13, 5=8-3-13 : 14) 16), 5=-165 (LC 14) : 25), 4=201 (LC 5),	5) 6) 7) 8) d or 9) 10)	Gable require Gable studs : This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an Provide mech bearing plate 4 and 165 lb This truss is of International R802.10.2 ar	es continuous botto spaced at 4-0-0 oc s been designed fo d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y 2-00-00 wide will y 2-00-00 wide will y other members, nanical connection capable of withsta uplift at joint 5. designed in accord Residential Code s d referenced stand Standard	om chor or a 10.0 rith any for a liv where fit betw with BC (by oth nding 2 ance w sections dard AN	d bearing. D psf bottom other live loa e load of 20.0 a rectangle veen the bottu DL = 10.0psf ers) of truss t 19 lb uplift at j ith the 2018 k R502.11.1 a ISI/TPI 1.	ds. Opsf om f. oont oint					
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Wind: AS Vasd=100 Cat. II; Ex zone and 3-0-5 to 3 for memb Lumber D 2) Truss de only. For see Stand or consult	(lb) - Maxim Tension 1-2=-337/16 1-5=-95/144 2-5=-419/31 CE 7-16; Vult= 3mph; TCDL=6 cp B; Enclosed C-C Exterior(2 i-11-7, Exterior ers and forces DOL=1.60 plate signed for wind studs exposed dard Industry G t qualified build	um Com 38, 2-3=-' 4, 4-5=0/(9 130mph 6.0psf; BC ; MWFRS E) 0-0-5 (2R) 3-1' & MWFR grip DO d loads in d to wind cable Encling desired	(3-second gust) (3-second gust) CDL=6.0psf; h=25ft; 5 (envelope) exterior to 3-0-5, Interior (1) I-7 to 8-2-6 zone;C-0 S5 for reactions show L=1.60 the plane of the trus (normal to the face), I Details as applicab iner as per ANSI/TP	9 C wn; ss le, 1							0	XXX	SEA	ROLING L
 3) TCLL: AS Plate DOI DOL=1.15 Cs=1.00; 4) Unbalanc design. 	CE 7-16; Pr=2 L=1.15); Pf=20 5); Is=1.0; Rou Ct=1.10 red snow loads	0.0 psf (r 0.0 psf (Lu gh Cat B have be	iner as per ANSI/TF oof LL: Lum DOL=1. m DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi	.15 s								N. P.	SREW J	E.P. ONIN

October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLC3	Valley	1	1	Job Reference (optional)	161152093

0-4-2

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:57 ID:0o2TM9gXFBrQE13pL?fjk4yzBG4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

7-1-6 0-4-2 6-9-4 2x4 🛛 3 P 2x4 II 5-11-7 2 ø 10 ¹² ┛ 4 X 5 2x4 🛛 2x4 II 2x4 🍫 7-1-6

Scale = 1:38.8

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 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-MP	0.36 0.12 0.09	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: 35 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No. 2x4 SP No. 2x4 SP No. 2x4 SP No. 2x4 SP No. Structural V 6-0-0 oc pu Rigid ceilin bracing. (size) Max Horiz Max Uplift Max Grav	2 2 3 3 wood shea irlins, exc g directly 1=7-1-6, 4 1=198 (LC 4=-45 (LC 1=121 (LC 5=467 (LC	athing directly applie cept end verticals. applied or 10-0-0 oc I=7-1-6, 5=7-1-6 C 14) C 14), 5=-148 (LC 14) C 25), 4=198 (LC 20) C 20)	6) 7) 8) d or 9) 5 1(), L(Gable studs This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Provide mecl bearing plate 4 and 148 lb 0) This truss is International R802.10.2 ar	spaced at 4-0-0 oc s been designed fo d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. nanical connection capable of withsta uplift at joint 5. designed in accord Residential Code s d referenced stand Standard	for a 10.0 with any for a liv where fit betw (by oth ance w sections dard AN	D psf bottom other live loa e load of 20.1 a rectangle veen the botti ers) of truss I 55 lb uplift at j ith the 2018 5 R502.11.1 a ISI/TPI 1.	nds. Opsf om to joint					
FORCES	(lb) - Maxin	num Com	pression/Maximum											
TOP CHORD BOT CHORD WEBS	1-2=-303/1 1-5=-73/77 2-5=-383/2	61, 2-3=- ⁻ , 4-5=0/0 90	154/81, 3-4=-167/11	3										
NOTES														
 Wind: ASC Vasd=103 Cat. II; Ex zone and forces & N DOL=1.60 Truss des only. For see Stand or consult TCLL: AS Plate DOL DOL=1.15 Cs=1.00; Unbalance design. 	CE 7-16; Vult: Bmph; TCDL= p B; Enclossec C-C Exterior(WFRS for rev b) plate grip DC signed for win studs expose lard Industry (qualified buil CE 7-16; Pr=: _=1.15); Pf=2i CE 7-10; Roi Ct=1.10 ed snow load:	=130mph 6.0psf; BC 4.; MWFRS 2E) zone; actions sl DL=1.60 d loads ind d to wind Gable Enc ding desig 20.0 psf (L 0.0 psf (L ugh Cat B s have be	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior C-C for members ar hown; Lumber In the plane of the true (normal to the face) d Details as applicab gner as per ANSI/TP roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; een considered for thi	r nd ss , , le, , 11. .15 ; ; is							Comme		SEA 4584	ROLATER ON THE REP. ON THE REP
5) Gable req	uires continue	ous bottor	m chord bearing.										in min	inin.

October 4,2023

9) Bit Soundside Road Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLC4	Valley	1	1	Job Reference (optional)	161152094

5-11-0

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:57 ID:MmrMPskg4jTiKoxm8YEuR8yzBG?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

GRIP

244/190

FT = 20%

4 5 2x4 II 2x4 II 2x4 🖌 5-11-0 CSI DEFL l/defl L/d PLATES in (loc) TC 0.34 Vert(LL) n/a n/a 999 MT20 BC 999 0.12 Vert(TL) n/a n/a . WB 0.10 Horiz(TL) 0.00 4 n/a n/a IRC2018/TPI2014 Matrix-MP Weight: 28 lb Gable requires continuous bottom chord bearing. 5) Gable studs spaced at 4-0-0 oc. 6) 7) 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 8) 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 9) bearing plate capable of withstanding 61 lb uplift at joint 4, 32 lb uplift at joint 1 and 132 lb uplift at joint 5. 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. LOAD CASE(S) Standard

TCLL (roof) Snow (Pf) TCDL

BCLL

BCDL

Scale = 1:33.8 Loading

LUMBER		
TOP CHORD	2x4 SP No	0.2
BOT CHORD	2x4 SP No	0.2
WEBS	2x4 SP No	0.3
OTHERS	2x4 SP No	0.3
BRACING		
TOP CHORD	Structural	wood sheathing directly applied or
	5-11-0 oc	purlins, except end verticals.
BOT CHORD	Rigid ceili	ng directly applied or 10-0-0 oc
	bracing.	
REACTIONS	(size)	1=5-11-0, 4=5-11-0, 5=5-11-0
	Max Horiz	1=170 (LC 14)
	Max Uplift	1=-32 (LC 12), 4=-61 (LC 14),
		5=-132 (LC 14)
	Max Grav	1=120 (LC 14), 4=199 (LC 20),
		5=450 (LC 20)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	
TOP CHORD	1-2=-331/	169, 2-3=-155/80, 3-4=-165/125
DOT OUODD	4 5 00/4	0 4 5 0/0

(psf)

20.0

20.0

10.0

0.0

10.0

Spacing

Code

Plate Grip DOL

Rep Stress Incr

Lumber DOL

2-0-0

1.15

1 15

YES

BOT CHORD 1-5=-36/10, 4-5=0/0 WEBS 2-5=-415/332

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone;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 2) 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 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

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



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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLC5	Valley	1	1	Job Reference (optional)	161152095

3-7-10

3-7-10

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:58 ID:f6m?tGq3QtLjgt_72WsXDcyzBFu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-8-10

1-0-15

Page: 1

3x5 II 3x5 🍫 2 3



Scale = 1:31.6

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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing 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-MR	0.52 0.34 0.00	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.01	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 19 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 4-8-10 oc purlins, e 2-0-0 oc purlins: 2-3 Rigid ceiling directly bracing. (size) 1=4-8-10, Max Horiz 1=107 (LC Max Uplift 4=-50 (LC Max Grav 1=260 (LC (lb) - Maximum Com Tension 1-2=-321/2, 2-3=-76, 1-4=-165/248	athing directly appli xcept end verticals, applied or 10-0-0 o 4=4-8-10 2 14) 2 35), 4=212 (LC 35 pression/Maximum /50, 3-4=-116/118	6) 7) 8) 9) ed or and 10 5) 12 5) 12	Gable requir Gable studs This truss ha chord live loa * This truss f on the bottor 3-06-00 tall b chord and ar) Provide mec bearing plate 4.) This truss is International R802.10.2 a) Graphical pu or the orienta bottom chord DAD CASE(S)	es continuous be spaced at 4-0-0 is been designed ad nonconcurren nas been design n chord in all are oy 2-00-00 wide y other member hanical connecti e capable of with designed in acco Residential Cod nd referenced st irlin representatia ation of the purlin d. Standard	ottom chorn oc. d for a 10.0 tt with any ed for a liv- eas where will fit betw rs. ion (by othe standing 5 ordance wi de sections andard AN on does no n along the	d bearing.) psf bottom other live loa e load of 20.0 a rectangle reen the bott ers) of truss f 0 lb uplift at j th the 2018 R502.11.1 a SI/TPI 1. t depict the s top and/or	nds. Dpsf om to joint and size						
NOTES 1) Wind: AS Vasd=103 Cat. II; Ex zone and	CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B/ p B; Enclosed; MWFR C-C Exterior(2E) 0-0-5	(3-second gust) CDL=6.0psf; h=25ft S (envelope) exterior to 3-0-5. Exterior(2	; or 2R)									TH CA	Rojin	

3-0-5 to 3-7-15, Exterior(2E) 3-7-15 to 4-7-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 2) Truss designed for wind loads in the plane of the truss

- only. For stude 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 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Provide adequate drainage to prevent water ponding.



SEAL 45844

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLE1	Valley	1	1	Job Reference (optional)	l61152096

TCDL

BCLL

BCDL

1)

2)

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:59 ID:DTBTk2iEBbrKjDFXxKE1mCyzBJw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLE2	Valley	1	1	Job Reference (optional)	161152097

Loading

TCDL

BCLL

BCDL

WEBS

NOTES

1)

2)

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:37:59 ID:XFryJlebWm?dvpUHJx6YFyyzBHQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLE3	Valley	1	1	Job Reference (optional)	161152098

Scale = 1:40.6 Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

WEBS

NOTES

1)

2)

TOP CHORD

BOT CHORD

this design.

DOL=1.60

REACTIONS (size)

bracing.

Max Horiz

Max Uplift

Max Grav

Tension

TCDL

BCLL

BCDL

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Page: 1

5-8-2 11-0-1 5-8-2 5-4-0 4x5 = 3 2x4 II 4-5-5 13 14 4-9-0 2x4 II 12 10 Г 2 4 5 -0 -0 6 8 7 2x4 II 2x4 🛛 3x5 🥠 3x5 💊 2x4 II 11-4-3 2-0-0 CSI DEFL l/defl L/d PLATES GRIP (psf) Spacing in (loc) 20.0 Plate Grip DOL 1.15 TC 0.32 Vert(LL) n/a 999 MT20 244/190 n/a 20.0 BC Lumber DOL 1 15 0.12 Vert(TL) n/a n/a 999 10.0 Rep Stress Incr YES WB 0.09 Horiz(TL) 0.00 5 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MSH 10.0 Weight: 46 lb FT = 20%3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), 2x4 SP No.2 2x4 SP No.2 see Standard Industry Gable End Details as applicable, 2x4 SP No.3 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); Pf=20.0 psf (Lum DOL=1.15 Plate Structural wood sheathing directly applied or DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 6-0-0 oc purlins. Cs=1.00: Ct=1.10 Rigid ceiling directly applied or 10-0-0 oc Unbalanced snow loads have been considered for this 5) desian. 1=11-4-3, 5=11-4-3, 6=11-4-3, 6) Gable requires continuous bottom chord bearing. 7=11-4-3, 8=11-4-3 7) Gable studs spaced at 4-0-0 oc. 1=-107 (LC 10) This truss has been designed for a 10.0 psf bottom 8) 1=-39 (LC 10), 5=-12 (LC 11), chord live load nonconcurrent with any other live loads. 6=-134 (LC 15), 8=-138 (LC 14) * This truss has been designed for a live load of 20.0psf 9) 1=75 (LC 24), 5=56 (LC 26), 6=442 on the bottom chord in all areas where a rectangle (LC 21), 7=252 (LC 21), 8=442 (LC 3-06-00 tall by 2-00-00 wide will fit between the bottom 20) chord and any other members. (Ib) - Maximum Compression/Maximum 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1-2=-123/101, 2-3=-224/112, 3-4=-224/112, 1, 12 lb uplift at joint 5, 138 lb uplift at joint 8 and 134 lb 4-5=-100/66 uplift at joint 6. 1-8=-33/74, 7-8=-25/74, 6-7=-25/74, 11) This truss is designed in accordance with the 2018 5-6=-34/74 International Residential Code sections R502.11.1 and 3-7=-163/0, 2-8=-434/243, 4-6=-434/243 R802.10.2 and referenced standard ANSI/TPI 1. LOAD CASE(S) Standard 0 Unbalanced roof live loads have been considered for animmun ar Vou norther Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; SEAL Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 8-4-8, Exterior(2E) 8-4-8 to 11-4-8 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 minin October 4,2023 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

bilding 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	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLE4	Valley	1	1	Job Reference (optional)	161152099

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Page: 1



3x5 🛷

2x4 II

8-11-6

3x5 💊

Scale = 1:32

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 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-MP	0.44 0.40 0.15	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: 34 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 8-11-6 oc purlins. Rigid ceiling directly bracing. (size) 1=8-11-6 Max Horiz 1=-84 (L0 Max Uplift 1=-55 (L0 4=-114 (I) Max Grav 1=75 (L0 (I C 21) 	eathing directly applie v applied or 6-0-0 oc , 3=8-11-6, 4=8-11-6 C 10) C 21), 3=-55 (LC 20) C 14) 2 20), 3=75 (LC 21), -	4) ed or 6) 7) 8) 5 9) 4=732 10	TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. Gable requir 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 9. Provide mec	7-16; Pr=20.0 p: 15); Pf=20.0 ps Is=1.0; Rough Ca =1.10 snow loads have es continuous bo spaced at 4-0-0 0 is been designed ad nonconcurrent nas been designed no chord in all are by 2-00-00 wide v hanical connection	sf (roof LL f (Lum DC at B; Fully e been cor ottom chor oc. I for a 10. t with any d for a liv as where will fit betw s. on (by oth	: Lum DOL= IL=1.15 Plate Exp.; Ce=0.9 asidered for th d bearing. 0 psf bottom other live loa e load of 20.0 a rectangle veen the botton ers) of truss t	1.15); his ds.)psf om					
FORCES TOP CHORD BOT CHORD WEBS NOTES	(lb) - Maximum Con Tension 1-2=-137/342, 2-3= 1-4=-231/197, 3-4= 2-4=-551/273	npression/Maximum •137/342 •231/197	11 LC	1, 55 lb uplift) This truss is International R802.10.2 at	a tipint 3 and 11 designed in acco Residential Code and referenced sta Standard	4 lb uplift ordance w e sections andard AN	at joint 4. ith the 2018 R502.11.1 a ISI/TPI 1.	nd					
 Unbalance this desig Wind: AS Vasd=103 Cat. II; E> zone and 3-0-5 to 5 	ed roof live loads have in. iCE 7-16; Vult=130mpt 3mph; TCDL=6.0psf; B xp B; Enclosed; MWFR C-C Exterior(2E) 0-0-5 5-11-11. Exterior(2E) 5-	been considered for (3-second gust) CDL=6.0psf; h=25ft (S (envelope) exterior 5 to 3-0-5, Exterior(2 11-11 to 8-11-11 zo	or ; or :R) ne:							0	L'	ORTH CA	ROLIN

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. 3)

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

A THINK WITH THE The second SEAL 45844 Ortil October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLE5	Valley	1	1	Job Reference (optional)	161152100

3-3-5

3-3-5

Carter Components (Sanford, NC), Sanford, NC - 27332,

2-5-5

0-0-4

2-9-0

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6-2-8

2-11-3

6-6-10



12 10 Г



4x5 = 2

2x4 🦼

6-6-10

Scale = 1:28

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 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-MP	0.20 0.21 0.07	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: 24 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood s 6-6-10 oc purlins Rigid ceiling direc bracing. (size) 1=6-6- Max Horiz 1=60 (Max Uplift 1=-5 (I (LC 14 Max Grav 1=102 4=457	sheathing directly appl ctly applied or 6-0-0 oc 10, 3=6-6-10, 4=6-6-1 LC 11) _C 21), 3=-5 (LC 20), 4 (LC 20), 3=102 (LC 2	5) 6) 7) 8) 9) 5 0 10 4=-60 1), 11	Unbalanced design. Gable requir Gable studs This truss ha chord live loa * This truss lo on the botto 3-06-00 tall li chord and ai)) Provide med bearing plate 1, 5 lb uplift 1) This truss is International	snow loads have es continuous bo spaced at 4-0-0 is been designed ad nonconcurrent has been designed n chord in all are by 2-00-00 wide v y 2-00-00 wide v y other member hanical connecti e capable of withs at joint 3 and 60 I designed in accor Residential Code	be been cor oc. d for a 10.0 t with any eas where will fit betw s. on (by oth standing 5 lb uplift at ordance w e sections	asidered for t d bearing. D psf bottom other live loa e load of 20. a rectangle veen the bott ers) of truss i lb uplift at jc joint 4. it the 2018 R502.11.1 a	his ads. Opsf om to pint					
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum C Tension 1-2=-88/188, 2-3: 1-4=-136/134, 3-4 2-4316/168	compression/Maximum =-88/188 4=-136/134	¹ L(R802.10.2 a DAD CASE(S)	nd referenced sta Standard	andard An	ISI/TPI 1.						
NOTES 1) Unbalance this design 2) Wind: ASC	ed roof live loads ha n. CE 7-16; Vult=130m	ave been considered fo	or								. 6	TH CA	Ro

- 2 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

Annun anna Summer and SEAL 45844 104 ununun October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLE6	Valley	1	1	Job Reference (optional)	161152101

2-0-14

2-0-14

Carter Components (Sanford, NC), Sanford, NC - 27332,

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3-9-11

1-8-12



Page: 1



4-1-13

Scale = 1:24.9

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/T	⁻ PI2014	CSI TC BC WB Matrix-MP	0.06 0.08 0.03	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: 14 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood sf 4-1-13 oc purlins. Rigid ceiling direct bracing. (size) 1=4-1-1 Max Horiz 1=37 (L Max Uplift 1=-1 (Lt (LC 14) Max Grav 1=79 (L (LC 20)	eathing directly applie ly applied or 6-0-0 oc 3, 3=4-1-13, 4=4-1-13 C 11) C 14), 3=-8 (LC 15), 4= C 20), 3=79 (LC 21), 4	5) L 6) C 7) C 8) T 9) * 0 10) F =-25 1 11) T	Unbalanced s Jesign. Sable require Sable studs s Chord live loa of This truss has on the bottom 3-06-00 tall b chord and an Provide mech pearing plate 1, 8 lb uplift a Chis truss is of nternational	snow loads have be spaced at 4-0-0 oc. s been designed fo d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. nanical connection capable of withsta t joint 3 and 25 lb designed in accord Residential Code s	een cor om chor or a 10.0 vith any for a liv where l fit betw (by oth nding 1 uplift at ance w sections	nsidered for th d bearing. D psf bottom other live load e load of 20.0 a rectangle ween the botto ers) of truss to lb uplift at joi joint 4. ith the 2018 R502.1.1.1 at	iis ds. ipsf om nt nt					
KICC 20) R802.10.2 and referenced standard ANSI/TPI 1. FORCES (lb) - Maximum Compression/Maximum Tension R802.10.2 and referenced standard ANSI/TPI 1. TOP CHORD 1-2=-72/76, 2-3=-72/76 BOT CHORD 1-4=-60/69, 3-4=-60/69													
WEBS	2-4=-136/67	- h											
 Oribatance this design Wind: ASC Vasd=103 Cat. II; Exp zone and exposed ; members Lumber D Truss des only. For see Stand or consult TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; 0 	n. CE 7-16; Vult=130mp Smph; TCDL=6.0psf; p B; Enclosed; MWF C-C Exterior(2E) zor end vertical left and and forces & MWFR OL=1.60 plate grip D signed for wind loads studs exposed to win lard Industry Gable E qualified building de CE 7-16; Pr=20.0 psf 5); Is=1.0; Rough Cat Ct=1.10	h (3-second gust) BCDL=6.0psf; h=25ft; RS (envelope) exterior e; cantilever left and ri right exposed;C-C for S for reactions shown; OL=1.60 in the plane of the tru: d (normal to the face) nd Details as applicab signer as per ANSI/TP (roof LL: Lum DOL=1 Lum DOL=1.15 Plate B; Fully Exp.; Ce=0.9	r ight ss , , le, , 11. .15 ;							Continues	E. E.	SEA 4584	L H4 OHNSUIT

October 4,2023

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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLG1	Valley	1	1	Job Reference (optional)	l61152102

2-5-12

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:38:01 ID:aURQiS0qpwcnaEzI3_tgZTyjNsg-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



%



7-4-9

- ·		
Scale	= 1	1:29.1

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 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-MP	0.25 0.25 0.08	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: 25 lb	GRIP 244/190 FT = 209
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural w 7-2-12 oc pu Rigid ceiling bracing. (size) 1= Max Horiz 1= Max Uplift 1= 4= Max Grav 1= 4= (lb) - Maximu Tension 1-2=-96/237 1-4=-165/12 2-4=-367/17	2 2 3 3 4 directly =7-4-9, 3 =54 (LC =-10 (LC =-10 (LC =518 (LC =518 (LC um Com 7, 2-3=-8: 6, 3-4=- 6	athing directly applie applied or 6-0-0 oc 3=7-4-9, 4=7-4-9 11) 21), 3=-24 (LC 20), 14) 20), 3=67 (LC 21), 21) pression/Maximum 3/237 165/126	4) 5) (d or 6) 7) 8) 9) 10	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. Gable requirin Gable studs This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar 9) Provide mec bearing plate 1 and 24 lb u) N/a	7-16; Pr=20.0 ps .15); Pf=20.0 psf ls=1.0; Rough Ca =1.10 snow loads have es continuous bot spaced at 4-0-0 o is been designed ad nonconcurrent has been designed n chord in all area by 2-00-00 wide w hy other members hanical connectio o capable of withsi uplift at joint 3.	f (roof LL (Lum DC t B; Fully been cor tom chor c. for a 10.1 with any d for a liv us where ill fit betv n (by oth tanding 1	.: Lum DOL=: DL=1.15 Plate Exp.; Ce=0.9 nsidered for th d bearing. D psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 0 lb uplift at j	1.15); ds.)psf om o					
NOTES				10) This trues is	designed in accor	w anneh	ith the 2018						

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 3-8-11, Exterior(2E) 3-8-11 to 6-11-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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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Job	Truss	Truss Type	Qty	Ply	134 Serenity-Roof-B328 A LH CP TMB	
24050082	VLG2	Valley	1	1	Job Reference (optional)	161152103

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Tue Oct 03 08:38:02 ID:?Kf_vIGN638x_JV8EBEMMhyjNsM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



2x4 II

5-10-9

2x4 🦽

2x4 🔊

5

BOT CHORD

Scale = 1:25												-	
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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 19 lb	FT = 20%
LUMBER			5)	Unbalanced	snow loads hav	e been cor	sidered for t	his					
TOP CHORD	2x4 SP No.2		,	design.									
BOT CHORD	2x4 SP No.2	es continuous b	ottom chor	d bearing.									
OTHERS	2x4 SP No.3 7) Gable studs spaced at 4-0-0 oc.												
BRACING		as been designe	d for a 10.0) psf bottom									
TOP CHORD	CHORD Structural wood sheathing directly applied or chord live load nonconcurrent with any other live loads.						ads.						
	5-10-9 oc purlins.			 * This truss has been designed for a live load of 20.0psf 									

Rigid ceiling directly applied or 6-0-0 oc bracing. **REACTIONS** (size) 1=5-10-9, 4=5-10-9, 5=5-10-9 Max Horiz 1=-42 (LC 10) Max Uplift 4=-13 (LC 15), 5=-47 (LC 14) Max Grav 1=89 (LC 20), 4=142 (LC 21), 5=364 (LC 20)

1-11-12

1-8-

FORCES (Ib) - Maximum Compression/Maximum Tension TOP CHORD 1-2=-88/129, 2-3=-51/39, 3-4=-176/99 BOT CHORD 1-5=-72/86, 4-5=-83/139 WEBS 2-5=-256/138

NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 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. 10) Provide mechanical connection (by others) of truss to
- bearing plate capable of withstanding 13 lb uplift at joint 4 and 47 lb uplift at joint 5. 11) 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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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 **BCSI Building Component Statu Information** available from the Structural Building Component Advection 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)



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