

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 24060178-01 184 Serenity-Roof-B326 B CP TMB GRH

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Pages or sheets covered by this seal: I66814430 thru I66814469

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

North Carolina COA: C-0844



July 12,2024

Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A01	Piggyback Base Supported Gable	1	1	Job Reference (optional)	166814430

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:46 ID:HvYYHe4LpHmiz2DId9nw5TzRQov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:91.4

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	0.13 0.12 0.21	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.01	(loc) - - 33	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 546 It	GRIP 244/190 p FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD	2x6 SP N 2x6 SP N 2x4 SP N 2x4 SP N 2x4 SP N 49-17,48- 52-14,53- Structura	lo.2 lo.2 lo.3 lo.3 *Excep -18,47-19,4 -12:2x4 SP l wood she	t* 6-20,44-22,50-16,51 No.2 athing directly applie	-15, d or	Max Grav 34=41; 36=19(38=174 40=23(43=23) 46=199 48=211 50=211 52=199	3 (LC 25) 6 (LC 41) 4 (LC 45) 0 (LC 45) 0 (LC 45) 9 (LC 40) 7 (LC 40) 7 (LC 40) 9 (LC 40) 9 (LC 40)	35=84 (LC 37=153 (L 39=221 (L 42=229 (L 44=217 (L 47=220 (L 49=216 (L 51=220 (L 53=217 (L	C 13), C 59), C 45), C 45), C 45), C 45), C 40), C 40), C 40), C 40), C 43),	BOT CI	HORD	61-62 59-60 57-58 55-56 52-53 50-51 48-49 46-47 43-44		=-80/149, =-80/149, '=-80/149, =-80/149, =-80/149, =-80/149, =-80/149, =-80/149, =-80/149,
BOT CHORD	6-0-0 oc∣ 2-0-0 oc∣ Rigid ceil	purlins, ex purlins (10- ing directly	cept end verticals, ar 0-0 max.): 13-21. applied or 6-0-0 oc	nd	55=234 57=233 59=199	4 (LC 43) 3 (LC 43) 9 (LC 43) 5 (LC 51)	, 56=233 (L , 58=233 (L , 60=151 (L , 62=134 (L	.C 43), .C 43), .C 58), .C 58)			40-42 38-39 36-37	=-80/149, 39-40 =-80/149, 37-38 =-80/149, 35-36 - 80/149, 33-30)=-80/149, }=-80/149, }=-80/149, 1=-80/149,
WEBS	bracing. 1 Row at	midpt	17-49, 18-48, 19-47 20-46, 22-44, 23-43 24-42, 16-50, 15-51 14-52, 12-53, 11-55	(lb) - Maximum Compression/Maximum Tension 2-62=-243/191, 1-2=0/23, 2-3=-100/92, 3-4=-75/120, 4-5=-49/115, 5-6=-59/156,									
REACTIONS	(size) Max Horiz Max Uplift	33=53-2-{ 36=53-2-{ 43=53-2-{ 47=53-2-{ 50=53-2-{ 57=53-2-{ 60=53-2-{ 60=53-2-{ 60=53-2-{ 60=53-2-{ 60=53-2-{ 61=-15 (L 38=-42 (L 43=-52 (L 43=-52 (L 55=-52 (L) 55=-52 (3, $34=53-2-8$, $35=53$, 3, $37=53-2-8$, $38=53$, 3, $40=53-2-8$, $42=53$, 3, $44=53-2-8$, $42=53$, 3, $44=53-2-8$, $42=53$, 3, $55=53-2-8$, $52=53$, 3, $55=53-2-8$, $56=53$, 3, $53=53-2-8$, $52=53$, 4, $53=53-2-8$, $52=53$, 4, $53=53-2-8$, $52=53$, 4, $53=53-2-8$, $52=53$, 4, $53=53-2-8$, $52=53$, 5, $53=53-2-8$, $52=53-2-2$, $52=53-2-2-2$, $52=53-2-2$, $52=55-2-2$, $52=55-2-2$, $52=55-2-2$, $52=55-2-2$, $52=55-2-2$, $52=55-2-2$, $52=55-2-2$, $52=55-2$, $52=55-2$, $52=55-2-2$, $52=55-2$, $52=55-2$, $52=55-$	2-8, 2-8, 2-8, 2-8, 2-8, 2-8, 2-8, 2-8, 2-8, 2-8, 15), 5), 5), 5), 5), 1), 0), 0), 4), 4), 4),	9-11=-125/338, 1 12-13=-147/384, 14-15=-140/380, 16-17=-140/380, 18-19=-140/380, 22-23=-145/387, 24-25=-107/291, 27-28=-75/201, 2 29-30=-64/136, 3 31-32=-125/100,	9 1/240, 1-12=-14 13-14=-1 15-16=-1 17-18=-1 19-20=-1 21-22=-1 21-22=-1 23-24=-1 25-27=-9 8-29=-60 0-31=-72 32-33=-1	8-910772 5/387, 40/380, 40/380, 40/380, 40/380, 40/380, 40/384, 25/338, 1/246, 7/60, 7/111, 34/115	.91,				SE/ 036	AL 322 JEERER AL 311 BER JU 12,2024

ENGINEERING BY REALED AMITER Atiliate 818 Soundside Road Edenton, NC 27932

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design in the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent parameters and report y incorporate this design in the overall 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 <u>ANSI/TP11 Quality Criteria and DSB-22</u> 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	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A01	Piggyback Base Supported Gable	1	1	Job Reference (optional)	166814430

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:46

ID:HvYYHe4LpHmiz2Dld9nw5TzRQov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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

WEBS	17-49=-176/57, 18-48=-177/62,
	19-47=-180/61, 20-46=-159/6, 22-44=-177/2,
	23-43=-190/87, 24-42=-189/81,
	25-40=-190/77, 27-39=-181/77,
	28-38=-132/77, 29-37=-125/77,
	30-36=-138/78, 31-35=-67/120,
	32-34=-241/136, 16-50=-177/62,
	15-51=-180/61, 14-52=-159/1, 12-53=-177/0,
	11-55=-194/87, 9-56=-193/81, 8-57=-193/77,
	7-58=-194/77, 6-59=-157/77, 5-60=-116/91,
	4-61=-185/158, 3-62=-226/261

NOTES

 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 Corner(3E) -0-8-6 to 4-7-0, Exterior(2N) 4-7-0 to 12-4-3, Corner(3R) 12-4-3 to 22-11-13, Exterior(2N) 22-11-13 to 26-2-3, Corner(3R) 26-2-3 to 36-7-0, Exterior(2N) 36-7-0 to 47-10-11, Corner(3E) 47-10-11 to 53-2-8 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); 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
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 62, 33, 49, 48, 47, 43, 42, 40, 39, 38, 37, 36, 35, 34, 50, 51, 55, 56, 57, 58, 59, 60, and 61. This connection is for uplift only and does not consider lateral forces.
- 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.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A03	Piggyback Base	5	1	Job Reference (optional)	166814431

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:47 ID:OFJFx3IDTxFbWWzrBXohbzzRCTM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:91.4

Plate Offsets (X, Y): [2:0-2-12,0-2-0], [10:0-5-0,0-4-8], [12:Edge,0-1-5], [14:0-5-0,0-4-8]

Loading		(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIF	b
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.88	Vert(LL)	-0.32	19-21	>999	240	MT20	244/1	190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.92	Vert(CT)	-0.50	19-21	>778	180	ļ		
TCDL		10.0	Rep Stress Incr	YES		WB	0.99	Horz(CT)	0.10	12	n/a	n/a	l		
BCLL		0.0*	Code	IRC20	18/TPI2014	Matrix-MSH]		
BCDL		10.0											Weight: 470	lb FT =	20%
						1_22-118/222 10	-212	1/2500		8) All	lates ar	~ 2v/	MT20 unless (othenwise	indicated
	2×6 SP N/	<u>-</u> 2				18-19=-3/2629 17-	18=-3/2	n/2000, 2629		 G) 700 p G) This 	s truss h	as hee	n designed fo	r a 10.0 m	sf bottom
	2x6 SP 2/	J.Z 100E 2.0E *	*Except* 1/-12.2v6	SD.		15-17=0/2487 13-1	5=-38/	3144		cho	rd live lo	ad no	nconcurrent w	ith any oth	her live loads
	No 2	1001 2.0L	LACEPt 14-12.2A0 (01		12-13=-83/3646	0 00,	,		10) * Th	nis truss	has be	een designed f	for a live lo	oad of 20.0psf
WEBS	2x4 SP No	n 3 *Excent	t*	,	NEBS 2	2-21=-78/2773. 19-2	23=-49	4/240.		on t	he botto	m cho	rd in all areas	where a r	ectangle
II L D O	21-2.6-19	.8-17.17-9.	14-9.19-5.21-5:2x4 :	SP		23-26=-476/250, 6-2	26=-46	3/253,		3-0	5-00 tall	by 2-0	0-00 wide will	fit betwee	en the bottom
	No.2	,,,				17-24=-870/220, 24	-27=-8	56/226,		cho	rd and a	ny oth	er members, v	with BCDL	_ = 10.0psf.
OTHERS	2x4 SP No	o.3			8	3-27=-835/223, 9-1 ⁻	7=-89/9	37,		11) Ref	er to gire	der(s)	for truss to trus	ss connec	tions.
WEDGE	Right: 2x4	SP No.3				10-14=-907/319, 9-	14=-18	6/974,		12) Pro	vide me	chanic	al connection	(by others	s) of truss to
BRACING						10-13=-222/774, 11	-13=-3	24/238,		bea	ring plat	e capa	able of withsta	nding 25 ll	b uplift at joint
TOP CHORD	Structural	wood shea	athing directly applie	ed or	Ę	5-19=0/906, 3-21=-	842/342	2, 5-21=-282	/512,	12.					
	3-2-9 oc p	ourlins, exc	cept end verticals, ar	nd		23-25=-70/38, 24-2	5=-70/3	8, 18-25=0/3	34,	13) One	e H2.5A	Simps	on Strong-Tie	connector	rs
	2-0-0 oc p	ourlins (3-8-	-5 max.): 5-9.		4	26-28=-14/48, 27-20	8=-135	/26, 7-28=-25	55/89,	reco	ommend	ed to	connect truss f	to bearing	walls due to
BOT CHORD	Rigid ceili	ng directly	applied or 10-0-0 oc	5		0-28=-296/704, 8-26	8=-284	017		UPI	_i⊢iatj ∠ond do	(S) 22	and 15. This (connection	n is for uplift
	bracing,	Except:			NOTES					14) Thi	anu uu		consider later	anno with	the 2018
	2-2-0 oc b	pracing: 12	-13.		1) Unbalanced	roof live loads have	e been o	considered fo	or	Inte	rnations	l Roci	dential Code s	ance with	502 11 1 and
WEBS	1 Row at	midpt	19-26, 17-27, 9-17,	5-21,	this design.	7 46. \/ult=120mm	. (2	and such)		R80	12 10 2 2	and ref	erenced stanc	lard ANSI	/TPI 1
		+ H/-) 00	23-24		2) Wind: ASCE	7-16; Vuit=130mpr		ona gusi) Opof: b=25ft	Cat	15) Gra	phical p	urlin re	epresentation (does not d	lepict the size
JUINTS	1 Brace a	t Jt(s): 26,			II: Evo B: En	closed: MWERS (e	nvelone	0.000 $(1-201)$	l, Ual. no	or t	ne orien	tation	of the purlin al	ona the to	p and/or
	21,20	40 March			and C-C Exte	rior(2E) = 0.8-6 to 4	1.7.7 Ir	$(1) 4_7$	-7 to	bott	om choi	d.		5	
REACTIONS	(size)	12= Mecn	anical, 15=0-3-8,		10-1-12 Exte	erior(2R) 10-1-12 to	39-1-1	13 Interior (1))	LOAD	CASE(S) Sta	ndard	BEITTE-	e
	Max Horiz	22-0-0-0	LC 12)		39-1-13 to 47	7-10-11. Exterior(2E	E) 47-1	0-11 to 53-2-	, 8				- TN-1 C	· ^ ^ /	17.
	Max Liplift	1225 (1)	C 14) 15202 (I C 1	15)	zone; end ve	rtical left exposed;(C-C for	members an	d				"ATH C	0 חחי	p la
	Max Ophit	22=-167 (LC 14)	13),	forces & MW	FRS for reactions s	shown;	Lumber				X	ON. FES	SO-	AN I
	Max Grav	12=2098 ((LC 47), 15=842 (LC	; 39).	DOL=1.60 pl	ate grip DOL=1.60						SĘ		PN	· Shit
		22=2369 ((LC 37)	,,	3) TCLL: ASCE	7-16; Pr=20.0 psf	(roof LL	.: Lum DOL=	1.15		<u> </u>	19 M	205		- E
FORCES	(lb) - Maxi	imum Com	pression/Maximum		Plate DOL=1	.15); Pf=20.0 psf (L	um DC	DL=1.15 Plate	е			2568			
0	Tension		processing		DOL=1.15); I	s=1.0; Rough Cat I	B; Fully	Exp.; Ce=0.9	9;		1		SE	AL	
TOP CHORD	1-2=0/23,	2-3=-3256	/213, 3-5=-3382/413	3.	Cs=1.00; Ct=	1.10					2	i (036	:200	
	5-6=-2725	5/221, 6-7=	-3236/426,		 Unbalanced 	snow loads have be	een cor	isidered for t	nis		2	1000		1044	
	7-8=-3236	6/426, 8-9=	-2704/219,		aesign.	s boon designed fo	r groat	or of min root	flivo		34				
	9-11=-417	2/299, 11-	12=-4217/186,		load of 12 0	nsf or 1 00 times fla	n great	ad of 20.0 n	sfon		1		A . A.	-2	
	2-22=-241	7/212			overhands n	on-concurrent with	other liv	ve loads.	0.01			125	`∧	NEE	JAN S
					5) 200.0lb AC u	init load placed on t	the bott	om chord. 24	4-7-0			1	10	·	E N
					from left end	, supported at two p	points, s	5-0-0 apart.	-			1	1, A.	GIL	
					7) Provide adeo	uate drainage to p	revent	water pondin	g.				···///////	1111111	200

- 200.0lb AC unit load placed on the bottom chord, 24-7-0 6) from left end, supported at two points, 5-0-0 apart.
- 7) Provide adequate drainage to prevent water ponding.

July 12,2024

Page: 1

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Institute (average and truss component description (trust phonemore) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A03T	Piggyback Base	3	1	Job Reference (optional)	166814432

Са

ound compone	ents (Sanioru,	NC), Sanor	a, NC - 27332,				Run: 8. ID:OFJI	73 S Ju Fx3IDTx	in 13 2024 FbWWzrB	Print: 8.730 S XohbzzRCTM	5 Jun 13 202 1-RfC?PsB70	4 Milek Ind Hq3NSgPc	iustries, Inc. 1 inL8w3uITXb0	nu Jul 11 13:21 SKWrCDoi7J4z	:47 JC?f	Page: 1
-0- 	2-3-12 -10-8 10-8 2-3-12	<u>7-10-0</u> 5-6-4	<u>13-4</u> 5-6-	1-4 1 -4 2	17-8-0 1 4-3-12	9-5-4 1-9-4	<u>24-7-0</u> 5-1-12		<u>29-8-12</u> 5-1-12	31-6-0 1-9-4	<u>38-7-</u> 7-1-!	9 9	<u>45-9</u> 7-1-	- <u>2</u> -9	<u>53-2-8</u> 7-5-6	
0-94-1 0-0-0	5x6 5x8 = 3 2 4x6 = 3x5 $\frac{2-5-8}{2-5-8}$	36 36 00 25 5 -1 6x8= " 7-10-0 5-4-8	$6^{ 2}$ 4x5 = 38^{39} 37^{4} 23^{3} 4x5 = 23^{3} 4x5 = $13-2^{3}$ 5-4-	8x10 = 5 5 22 21 6x8= 3x5 II	60 6 19-5-4 6-2-12	<pre></pre>	4-10-4 	2x4 II 0 841 7 32 5x8= 29 29 2x4 II 2x4 II	4-10-4 0 46 29-0-8 2 4-5-8	4x5= 9 10 31 2x4= 8 8 8 8 1028 11128 181747 5x6= 2x4= 4x532-9-8 2x4= -8-12 0-8-4 3-0-12	₹ 16 48 3 4-6-0	8 15 49 8x10= 8 37-7-3 0 0-3-11	x10 = 1142 43 50 45-9-2 8-1-15	2x4 # 12 12 14 14 4x5=	<u>53-2-8</u> 7-5-6	1321- 6-0 5x8=
Plate Offsets (X, Y): [5:0-	5-0,0-4-8],	[11:0-5-0,0-4-8	8], [13:Edge	,0-1-5], [1	5:0-5-0,	0-4-8], [20:	0-4-0,0)-2-8], [22	:0-2-12,0-3	-8], [24:0-5	-8,0-3-0]				
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DC Lumber DOL Rep Stress In Code	2-0- DL 1.15 1.15 nor YES IRC	0 5 5 2018/TPI2	2014	CSI TC BC WB Matrix-W	ISH	0.59 0.89 1.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.24 -0.55 0.16	(loc) 20-21 19-20 13	l/defl L/d >999 240 >711 180 n/a n/a	PLATES MT20 Weight: 50 [°]	GRIP 244/190 1 lb FT = 20%	6
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD 1 Row at midp WEBS JOINTS REACTIONS FORCES TOP CHORD	2x6 SP No 2x6 SP No No.3, 18-1 2x4 SP No 22-6,7-20, No.2, 26-2 Right: 2x4 Structural 3-3-12 oc 2-0-0 oc p Rigid ceilli bracing. E t 5-22 1 Row at n 1 Brace al 31, 32 (size) Max Horiz Max Uplift Max Grav (lb) - Maxi Tension 1-2=0/25, 4-6=-3365 7-8=-3089 9-10=-255 12-13=-40	2.2 2.2 *Excep 5:2x6 SP 9.17,20-6, 2:2x6 SP 2. SP No.3 wood she purlins, e- urlins (3-1 ng directly Except: midpt t Jt(s): 30, 13= Mech 26=0-5-8 26=-186 (13=-2018) 26=-2270 - mum Com 2.3=-2320 2/356, 6-7= 1/425, 8-9= 1/6/219, 10- 1/56/188, 2-	t* 25-3,5-21:2x 2400F 2.0E t* .17-10,15-10:2x 400F 2.0E athing directly a xcept end vertic 0-0 max.): 6-10 applied or 10-0 20-30, 17-31, 6 10-17, 27-28 manical, 16=0-3- LC 12) C 14), 16=-198 LC 14) (LC 47), 16=91: (LC 37) pression/Maxim //201, 3-4=-343 :-2572/221, =-3089/425, .12=-4014/300, .26=-2399/221	4 SP 4 SP applied or cals, and).)-0 oc 6-20, -8, 8 (LC 15), 8 (LC 39), num \$1/248,	BOT CH WEBS 1) Unb this 2) Winc Vass II; E and 10-1 39-1 zone forc DOL 3) TCL Plat DOL Cs=	alanced design. d: ASCE d=103m xp B; Er C-C Ex: -13 to 4 e; end v es & MV _=1.60 p L: ASCI e DOL= _=1.15); 1.00; C1	25-26=-19, 23-24=-26; 21-22=-23, 20-21=-56; 17-19=-6/2, 14-16=-40, 4-22=-190, 20-27=-53; 7-30=-504, 28-31=-84; 6-20=-105, 10-15=-19, 11-14=-22, 4-23=-292, 24-26=-10; 28-29=-71, 31-32=-298, 2-24=-200, 1 roof live lot E7-16; Vult terior(2E) -1 terior(2E) -	/33, 24 /33, 24 /33, 2058 /80, 5-: /217, 1 /2184, 1 /2984, /131, 6 9/210, /212, 1 /212, 1 /2125, /520, 1 0/926, /1801, /78, 3-: /9/207, /37, 19 /2/27, 8 /700, 9 /2325 //37, 19 /2/27, 8 /700, 9 /2325 //37, 19 /2027, 8 /700, 9 /2325 //37, 19 /2027, 8 /700, 9 /2325 //37, 19 /2027, 8 /2027, 8 /		4, 3-24=-10; 216/2974, 168, 2484, 349, 5/3504 //120, 18/215, 1/227, 3/232, /903, 10/319, 24/238, J9, 20-22=0 1/37, , 30-32=-20 /89, /803, considered sond gust) 5.0psf; h=25 e) exterior z therior (1) 4 13, Interior (0-11 to 53-2 members a Lumber :: Lum DOL DL=1.15 Pla	89/126, 89/126, //2236, //40, for for 5ft; Cat. cone -7-7 to (1) 2-8 and =1.15 ate 0.9;	 This t load c overh 200.0 from I 200.0 from I Provice All pla All pla His t chord This t chord This t chord This t an the 3-06-1 the and the and the search the and the search the and the search the and t	russ has beer f 12.0 psf or angs non-cc lb AC unit lo eft end, supple de adequate tetes are 2x4 russ has beer live load no truss has be a bottom chc 20 tall by 2-0 and any oth to girder(s) de mechanic ng plate caps 12.5A Simps immended to T at jt(s) 26 ind does not	en designed f 1.00 times fl nourrent with ad placed on ported at two drainage to j MT20 unless en designed f nconcurrent t een designed rd in all area: 0-00 wide wi ter members, for truss to tru- al connection able of withst consider late FL S 0.3 S S S S S S S S S S S S S	ior greater of m lat roof load of 2 o other live load the bottom cho points, 5-0-0 a prevent water p or a 10.0 psf bo with any other li l for a live load s where a recta II fit between th with BCDL = 1 uss connections to bearing val e connectors to bearing val e connectors to bearing val e connectors to bearing val connectors to bearing val e connectors to bearing val connectors to bearing val connectors	in roof live 20.0 psf or s. ord, 24-7-0 part. onding. cated. bottom ive loads. of 20.0psf ingle e bottom 0.0psf. s. truss to lift at joint Is due to for uplift

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and RCSI Building Component Safety Information, available from the Structural Building Component Association (www.stearonponent.scom) 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	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A03T	Piggyback Base	3	1	Job Reference (optional)	166814432
Carter Components (Sanford, NC), Sanford, NC - 27332,	Run: 8.73 S Jun 1	2024 Print: 8.	730 S Jun 13	3 2024 MiTek Industries, Inc. Thu Jul 11 13:21:47	Page: 2

ID:OFJFx3IDTxFbWWzrBXohbzzRCTM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

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.

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

LOAD CASE(S) Standard

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 Schult before the Structure Building former the Association (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Page: 2

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A04	Piggyback Base	1	1	Job Reference (optional)	166814433

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:48 ID:DGN6a6f8caCKWpHw1clz1BzRCZx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Plate Offsets (X, Y): [2:0-4-14,0-2-8], [10:0-5-0,0-4-8], [14:0-5-0,0-4-8]

				-												
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	0.70	Vert(LL)	-0.41	18-20	>999	240	MT20	244/190		
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.99	Vert(CT)	-0.60	18-20	>915	180	ļ			
TCDL		10.0	Rep Stress Incr	YES		WB	0.95	Horz(CT)	0.09	12	n/a	n/a]			
BCLL		0.0*	Code	IRC20	18/TPI2014	Matrix-MSH		. ,								
BCDL		10.0	-										Weight: 470 lt	o FT = 20%		
LUMBER TOP CHORD BOT CHORD WEBS	2x6 SP N 2x6 SP N 2x4 SP N	o.2 o.2 o.3 *Excep	t* 21-2:2x6 SP No.2,	, , ,	VEBS 2	2-20=-52/2619, 18 22-25=-465/312, 6 16-23=-856/245, 2 3-26=-828/249, 3-2 20=-828/249, 3-2	-22=-47 -25=-45 3-26=-8 20=-817	9/304, 2/314, 48/253, /329,		10) * Th on t 3-00 cho	his truss he botto 3-00 tall rd and a	has bo m cho by 2-0 iny oth	een designed fo ord in all areas w 10-00 wide will fi ier members, wi	r a live load of 20.0psf here a rectangle it between the bottom ith BCDL = 10.0psf. connections		
	20-2,0-18	,8-16,20-5,	18-5, 16-9, 14-9:284 3	58)-20204/331, 3-)-16=-32/1379 9-1	14=-335	/69 10-14=0/	/553	12) Pro	vide me	chanic	al connection (k	or others) of trues to		
	NO.2				1	10-13=-2254/269	11_13=_	458/260	555,	12) FIU	ring plat		al connection (L	ding 210 lb unlift at joint		
BRACING	<u>.</u>					2-24=-58/49 23-2	24=-58/4	9 17-24=0/3	31	12	ning plat	e capa		ang 210 ib upint at joint		
TOP CHORD	3-2-10 oc 2-0-0 oc t	i wood shea purlins, ex purlins (3-8	athing directly applie (cept end verticals, a -14 max.): 5-9.	d or and	2	25-27=-52/98, 26-2 6-27=-309/732, 8-2	27=-177 27=-288	/46, 7-27=-26 /850	64/87,	13) One reco	H2.5A	Simps led to	on Strong-Tie c	onnectors bearing walls due to		
BOT CHORD	Rigid ceil	ing directly	applied or 2-2-0 oc	1	IOTES	roof live loads hav	e heen (considered fo)r	UPL only	IFT at j and do	t(s) 21 es not	and 13. This consider latera	nnection is for uplift I forces.		
WEBS	1 Row at	midpt	18-25, 16-26, 5-20, 5 9-14, 22-23	5-18,	this design.	7-16: Vult=130mm	h (3-sec	cond gust)	,	14) This Inte	s truss is rnationa	desig I Resi	ned in accordar dential Code se	nce with the 2018 octions R502.11.1 and		
WEBS JOINTS	9-14, 22-23 2 Rows at 1/3 pts 10-13 1 Brace at Jt(s): 25, 26 27				Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-6 to 4-7-7, Interior (1) 4-7-7 to						R802.10.2 and referenced standard ANSI/TPI 1.15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or					
REACTIONS	(size)	12= Mech 21=0-5-8	anical, 13=0-5-8,		10-1-12, Exte 39-1-13 to 47	erior(2R) 10-1-12 t 7-10-11, Exterior(2	o 39-1-1 E) 47-1(13, Interior (1) 0-11 to 53-2-6) 8	bott	om chor CASE(S)	[.] d.) Sta	ndard			
	Max Horiz Max Uplift	21=-187 (l 12=-210 (l 21=-153 (l	LC 12) LC 14), 13=-388 (LC LC 14)	; 15),	zone; cantile and right exp MWFRS for ו	ver left and right e osed;C-C for men reactions shown; L	xposed bers an umber I	; end vertical d forces & DOL=1.60 pla	left ate				THULL	NJ1177		
	Max Grav	12=880 (L 21=2304 (.C 43), 13=2428 (LC LC 37)	39), 3	grip DOL=1.6) TCLL: ASCE	60 7-16; Pr=20.0 psf	(roof LL	.: Lum DOL=	1.15				"ATH C	ARO		
FORCES	(lb) - Max Tension	imum Com	pression/Maximum		Plate DOL=1 DOL=1.15); I	.15); Pf=20.0 psf (s=1.0; Rough Cat	Lum DC B; Fully	L=1.15 Plate Exp.; Ce=0.9	e 9;				O'ijes	SIG		
TOP CHORD	1-2=0/25, 5-6=-2628 7-8=-319 9-11=-28 2-21=-23	2-3=-3165 8/229, 6-7= 1/435, 8-9= 32/531, 11- 69/212	/193, 3-5=-3281/387 -3191/435, -2605/228, 12=-1522/461,	, 2 5	Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 p	:1.10 snow loads have b s been designed f osf or 1.00 times fi	oeen cor or greate at roof le	nsidered for the er of min roof pad of 20.0 p	his f live sf on				SE/ 036	AL 322		
BOT CHORD	20-21=-13 17-18=0/2 13-16=-94	31/272, 18- 2532, 16-17 4/2317, 12-	20=0/2422, '=0/2532, 13=-351/1308	6 7 8 9	 overhangs no 200.0lb AC u from left end, Provide adec All plates are This truss ha chord live loa 	on-concurrent with nit load placed on , supported at two juate drainage to p 2x4 MT20 unless s been designed f ad nonconcurrent to	other liv the bott points, s prevent otherwi or a 10.0 with any	ve loads. com chord, 24 5-0-0 apart. water ponding se indicated. D psf bottom other live loa	1-7-0 g. ads.					NEER AND S		

July 12,2024

Page: 1

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent oclapse 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 Schult before the Structure Building former the component component or the property damage. and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A04T	Piggyback Base	2	1	Job Reference (optional)	166814434

Job	Truss		Truss Type		Qty	Ply	184 S	Serenity-R	oof-B326 l	B CP TMB GRH		
24060178-0	1 A041	Ē	Piggyback Base		2	1	Job R	Reference	(optional)		1668144	.34
Carter Compone	nts (Sanford, NC), Sanfo	ord, NC - 27332,		Run: 8.73 S Jur ID:DGN6a6f8ca	n 13 2024 Print CKWpHw1clz1	8.730 S Ju BzRCZx-Rf0	n 13 2024 M C?PsB70Hq	/iTek Indus 3NSgPqnL	tries, Inc. Th 8w3uITXbGI	nu Jul 11 13:21:48 KWrCDoi7J4zJC?f	I	Page: 1
-0- + 0-1	2-3-12 10-8 7-10-1 10-8 5-6-4 2-3-12	0 <u>13-4-4</u> 5-6-4	17-8-0 19-5-4 4-3-12 1-9-4 4x5	24-7-0 2 5-1-12	29-8-12 3 5-1-12 1	1-6-0 -9-4 6x8=	<u>38-7-9</u> 7-1-9		45-9- 7-1-	-2 9	53-2-8 7-5-6	
	5x6 = 5x8 = 35 3 2 $5x6 = 35$ 2 $4x6 = 6x8 = 3x5 = 3x5 = 3x5 = 3x5 = 5-4-5$	6^{12} $4x5 \neq$ 36^{4} 37^{38} 36^{4} 22^{20} 4x5 = 6x8 = 0 + 13-2-8 5-4-8	6 7 3x10 = 5 29 24 29 24 8 8 8 8 8 8 8 8 8 8 8 8 8	4-10-4 5-10-10 4-10-4 5-10-10 4-10-4 5-10-10 4-10-4 5-10-10 4-10-10-10 4-10-10-10 4-10-10-10-10 4-10-10-10-10-10-10-10-10-10-10-10-10-10-	4-10-4 9 30 2×4 4-10-4 9 30 2×4 8 4-10-4 8 4-10-4 8 4-10-4 8 4-10-4 8 4-10-4 8 4-10-4 9 2×4 8 4-10-4 45 1711 6×8= 2×4 4×4 2×4 4×4 2×4 8 4-10-4 45 1711 6×8= 2×4 4×4 2×4 8 4-10-4 45 1711 6×8= 2×4 4×4 2×4 8 4-10-4 45 1711 6×8= 2×4 4×4 4×4 2×4 8 4×4 4×4 4×4 4×4 4×4 4×4 4×4	10 10 346 12 37-6	-3-8 3 5-12	8x1 1548 8x10= 77-5-13 0-2-5	0≈ 141 42 Φ 49 49 45-3-4 7-9-7	2x4 <i>u</i> 12 12 14 4x5= 45-6-0 −2-12	43 53-2-8 7-8-8	13cz 13cz 6-0 4x5=
	X, Y): [5:0-5-0,0-4-8	J, [11:0-5-0,0-4-8], [15:	0-5-0,0-4-8], [19:0-4-0,	,0-2-8], [21:0-2-8,0-	-3-4], [23:0-5·	-8,0-3-0]						
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-MSH	0.64 Ve 0.98 Ve 0.90 Hc	E FL ert(LL) ert(CT) orz(CT)	in (-0.32 19 -0.51 18 0.14	(loc) I/d 9-20 >99 3-19 >99 13 r	efl L/d 99 240 99 180 n/a n/a	PLATES MT20	GRIP 244/190	
BCDL	10.0									Weight: 500 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS	10.0 BOT CHORD 2x6 SP No.2 2x6 SP No.2 *Except* 24-3,5-20:2x4 SP No.3 2x4 SP No.3 *Except* 21-6,7-19,16-9,19-6,16-10,15-10:2x4 SP No 2 25-2:2x6 SP No 2			24-25=-19/37, 23-24=0/26, 3-23=-1071/126, 22-23=-251/2015, 21-22=-196/2905, 20-21=-27/103, 5-21=-483/167, 19-20=-59/231, 18-19=0/2406, 16-18=0/2406, 14-16=-99/2179, 13-14=-332/1321				 This truss has been designed for greater of min roof load of 12.0 psf or 1.00 times flat roof load of 20.0 ps overhangs non-concurrent with other live loads. 6) 200.0lb AC unit load placed on the bottom chord, 24 from left end, supported at two points, 5-0-0 apart. 			n roof live 0.0 psf on 5. rd, 24-7-0 part. onding.	
BRACING TOP CHORD BOT CHORD	Structural wood sh 3-11-13 oc purlins, 2-0-0 oc purlins (3- Rigid ceiling directi bracing, Except: 2-2-0 oc bracing: 1	No.2, 25-2:2x6 SP No.2 WEBS Structural wood sheathing directly applied or 3-11-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-15 max.): 6-10. Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2.0 oc bracing, 16 19 15 16			4-21=-209/135, 6-21=-268/1135, 12-14=-436/244, 19-26=-509/263, 26-29=-492/270, 7-29=-479/266, 16-27=-872/241, 27-30=-861/249, 9-30=-841/245, 6-19=-290/533, 10-16=-27/1362, 10-15=-387/0, 11-15=0/624, 11-14=-2252/274, 23-25=-114/206				s are 2x4 l ss has bee ve load nor uss has be ottom choi tall by 2-0 nd any oth	MT20 unless oth in designed for a inconcurrent with een designed for rd in all areas wh 0-00 wide will fit er members, with	erwise indic 10.0 psf bo any other liv a live load c here a rectar between the n BCDL = 10	ated. ttom /e loads. of 20.0psf ngle > bottom 0.0psf.
1 Row at midpt WEBS	t 5-21 1 Row at midpt	racing, Except: -2-0 oc bracing: 16-18,15-16. -21 Row at midpt 19-29, 16-30, 6-19, 10-15, 26-27			2-23=-185/2284, 19-21=0/2142, 26-28=-69/38, 27-28=-69/38, 18-28=0/35, 29-31=-43/94, 30-31=-172/42, 8-31=-260/88, 7-21=-210/210, 0-24=-204/020) Refer to) Provide bearing	girder(s) f mechanica plate capa	or truss to truss al connection (by ble of withstandi	connections others) of t ng 195 lb up	russ to plift at joint
WEBS	2 Rows at 1/3 pts	11-14		4-22=-272/79.3-2	2=-2/980	,	13	13. 13) One H2 5A Simpson Strong-Tie connectors				

Unbalanced roof live loads have been considered for

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.

and C-C Exterior(2E) -0-8-6 to 4-7-7, Interior (1) 4-7-7 to

zone; cantilever left and right exposed ; end vertical left

MWFRS for reactions shown; Lumber DOL=1.60 plate

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;

4) Unbalanced snow loads have been considered for this

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

10-1-12, Exterior(2R) 10-1-12 to 39-1-13, Interior (1) 39-1-13 to 47-10-11, Exterior(2E) 47-10-11 to 53-2-8

and right exposed;C-C for members and forces &

Wind: ASCE 7-16; Vult=130mph (3-second gust)

13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 25. This connection is for uplift only and does not consider lateral forces.



Continued on page 2

1 Brace at Jt(s): 29,

25=0-5-8

4-6=-3278/330, 6-7=-2483/226,

7-8=-3050/432, 8-9=-3050/432,

9-10=-2465/226, 10-12=-2613/499,

12-13=-1536/440, 2-25=-2349/206

Max Horiz 25=-187 (LC 12)

13= Mechanical, 14=0-5-8,

13=892 (LC 43), 14=2466 (LC 39),

Max Uplift 13=-195 (LC 14), 14=-377 (LC 15),

25=-154 (LC 14)

25=2211 (LC 37)

(lb) - Maximum Compression/Maximum

1-2=0/25, 2-3=-2270/187, 3-4=-3355/225,

30, 31

Max Grav

Tension

JOINTS

FORCES

TOP CHORD

REACTIONS (size)

Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE WARNING Design valid for use only with MTesk 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 Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

design.

NOTES

this design.

grip DOL=1.60

Cs=1.00; Ct=1.10

1)

2)

3)

Job	Truss	Truss Type		Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A04T	Piggyback Base		2	1	Job Reference (optional)	166814434
Carter Components (Sanford, NC), Sanford, NC - 27332, Run:			Run: 8.73 S Jun 13 2	2024 Print: 8.	730 S Jun 13	3 2024 MiTek Industries, Inc. Thu Jul 11 13:21:48	Page: 2

ID:DGN6a6f8caCKWpHw1clz1BzRCZx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

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.

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

LOAD CASE(S) Standard

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 Schult before the Structure Building former the Association (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Page: 2

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A05	Attic Girder	1	4	Job Reference (optional)	166814435

240001100	7,60					-	Jo	b Refere	nce (opti	onal)			
Carter Compone	ents (Sanford, NC), Sanfor	rd, NC - 27332,		Run: 8.73 S Ju ID:VIY0a5aMU	n 13 2024 wQZRvxil	Print: 8.730 S 3XYItzRA f-Rf	Jun 13 202 C?PsB70F	24 MiTek I la3NSaPa	ndustries, I nL8w3uIT)	nc. Th	nu Jul 11 13:21:49 NrCDoi7J4zJC?f	l	Page: 1
			17-8-0	25-10-1	28-6-11 4	32-9-4		.qo.tog. q					
	-0-10-8 5-7-1	3 11-0-3	13-6-7 16-2-4 20	-7-5 23-3-2	Letter	31-6-0	39-7	-10	46	-5-3	53-0-	8	
	0-10-8 5-7-13	3 5-4-5	2-6-4 2-7-13 2- 1-5-12	11-5 2-7-13 2-7-13 1-1-0	2-7-13	2-11-5 1-3-4	6-10)-6	6-	9-9	6-7-5	5	
			6x8 ≉	/- ⊢ 4x8= 4	x5=	4x03 12x16=	*						
			7	8 960 61	0 11	12	~						
	Т		8x10 = 6		9 ada		3						
		12	5 48	49 4650	51 52	53	\sim	0	10				
		61- 4	4	5x6=	0.00	-		^	10≥ 14a				
c		4x5 = 58		+				X	63				
a a	þ	3		1-1-							4x5 ≈		
,	5x8 =			6						\sim	15		
	- 1 ²							/				4×5	
	8											16, 10	
							/						Г
	⊥ ⊥ 40 <u>⊠</u>	4443	42 64 65 4166 38	<u>35</u> 33	<u>29</u> 2668) 2677	2524 27	6	820 1	<u>~</u> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~	18	×××3 2,	L
	4x3-	5x8=	4x8= 4x5 II	3x5= 3x5= 3>	5= 3x8	= 5x8:	=	4x6= 4	x8=		10	4x5 II	
		4x6=	12x16=	3x8= 3x5=	3x5=	3x5=							
			8x1	0= 3x6 II 4	(6 II	3x8=							
			18-7	7_A	5X0- MT	20HS 8x12 =							
			18-5-8	· 21_4_12 24_2_4 26	-11-8 20-	30-4-8 32-9- 9-0 32-6-8	-4 8=						
	5-7-13	3 6-6-0 11-0-3	15-9-11 20	0-0-0 22-9-825-6-1	228-4-4	31-1-12	37-1-8	39-7-10) 46	-5-3	53-0-	8 ,	
Casla - 4:400	5-7-1	3 0-10-3 4-6-3	4-9-9 0-7-5 0-1-	12 1-4-12 1-4-8	1-4-12	0-7-8 0-2-1	24-4-4	2-6-2	6-	9-9	6-7-5	5	
Scale = 1:102.4	4 [7 [.] 0-8-0 0-3-4]	[12:0-10-8 0-2-12]	2-0-8 [19:0-5-0 0-4-8] [19:0-	<u>1-4-12 1-4-12 1-</u> 	<u>4-12 1-4</u> 3 0-2-81 1	-12 1-4-12 25969544 Ed	ael [28·0	-3-0 0-3-	01 [38.0-	4-12	Edge] [41:0-8-0	0-4-121	
Plate Offsets ((X, Y): [44:0-3-0,0-3-4	4]	, [11.0 0 0,0 1 0], [10.0	0 0,0 2 0], [22:0 0 1	5,6 2 0], [20.0-0 1,20	90], [20.0	0 0,0 0	0], [00.0	2,		, i i z],	
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	0.95	Vert(LL)	-0.42	38-41	>926	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.63	38-41	>617	180	MT20HS	187/143	
BCU	10.0	Rep Stress Incr		WB Matrix_MSH	0.97	Horz(CT)	0.17	17 22-40	n/a ⊳oз1	n/a 360			
BCDL	10.0		1602010/1712014	INIAU IX-INIST I		Auto	-0.21	22-40	2931	300	Weight: 2005 II	FT = 20%)
											J		
	2x6 SP No 2 *Excer	ot* 5-7·2v4 SP No 1	TOP CHORD	4-6=-19196/1164	. 6-7=-57	, 3-4=-17855 49/483.	5/1068,						
BOT CHORD	2x4 SP 2400F 2.0E	*Except* 43-38,43-	-45:2x6	7-8=-3024/527, 8	-9=-3021	/526,							
	SP No.2, 28-22,20-1	17:2x4 SP No.2		9-10=-3792/720,	10-11=-1	853/1232,							
WEBS	2v4 SP No 3 *Excer	nt* 13-21·2v6 SP 24	100F	11-12=-1853/123	2, 12-13= 51, 15-17	5041/447, '=-4060/262							
WEDO	2.0E, 6-46,45-2,41-4	47,41-6,46-13:2x6 \$	SP	2-45=-11891/728	0., .0	1000/202	,						
011050	No.2, 44-2:2x4 SP N	No.2	BOT CHORD	44-45=-126/446,	42-44=-7	61/12424,							
SLIDER	Right 2x4 SP No.3 -	- 1-6-0		33-35=0/18682.3	5, 35-41= 30-33=0/1	-660/17 142, 9483.	,						
TOP CHORD	Structural wood she	athing directly appl	lied or	27-30=0/18806, 2	24-27=-28	31/16626,							
	4-3-4 oc purlins, ex	cept end verticals,	and	21-24=-805/1316	8, 19-21=	-553/10974	,						
	2-0-0 oc purlins (6-0)-0 max.): 7-12.	_	39-40=-515/594.	, 17-18=- 37-39=-5	179/3511, 18/546.							
BUICHURD	bracing.	applied of 6-0-0 of	C	36-37=-2880/0, 3	4-36=-28	80/0,							
JOINTS	1 Brace at Jt(s): 49,			32-34=-3769/0, 3	1-32=-37 6-2028	69/0, 30/0							
	50, 51, 52, 40, 26,			23-26=-322/1917	, 22-23=-20	30/0, 322/1917							
REACTIONS	(size) 17=20-6-0	0. 18=20-6-0 19=2	0-6-0.										
	21=20-6-	0, 45=0-5-8, 54=20	-6-0								0.8 10.00000	• Augustani	
	Max Horiz 45=-188 ((LC 10)	0.40								THUNDA	"IIII	
	Max Uplift 1/=-141 (19=-265 ((LC 13), 18=-383 (L (LC 12) 21=-11735	_C 12), 5 (I C							-	N'TH CF	RO,"	10
	46), 45=-	708 (LC 12), 54=-14	41 (LC								ON EESS	ich	í e
	13)	(1 C 46) 49-7000 (4	5		K.	Vi-
	1/=2267 23) 19=5	(LC 46), 18=7963 (365 (LC 46) 21=1	104 (LC						4	13	· · · ·		
	12), 45=1	2082 (LC 46), 54=2	2267								SEA	Ł.	
	(LC 46)	-									0262	22	
FORCES	(lb) - Maximum Com	npression/Maximum	n								0000	46	
									J.F.				2
									Ĩ	21	NGIN	FENA	
										1	26	GE	S.
											11, A. C	illenn	8-1
											111111	11111	

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and RCSI Building Component Safety Information, available from the Structural Building Component Association (www.stearonponent.scom) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



July 12,2024

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A05	Attic Girder	1	4	Job Reference (optional)	166814435

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:49

ID:VIY0g5gMUgwQZRyxiBXYItzRA f-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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

WEBS 3-44=-5422/380, 3-42=-243/5049, 4-42=-776/166, 5-41=-150/1931, 21-22=-715/6617, 13-22=-547/7714, 6-48=-11763/751 48-49=-11346/727 49-50=-11312/680, 50-51=-11353/682, 51-52=-16183/978, 52-53=-12452/790, 13-53=-13084/827, 2-44=-701/13155, 40-41=-699/7786, 6-40=-547/8776, 7-48=-156/2528, 8-49=-546/66, 9-50=-137/2538, 10-51=-241/36. 11-52=-238/66, 12-53=-207/3427, 22-24=0/2405, 38-40=0/2734, 23-24=-541/0, 38-39=-594/0, 24-26=-2137/0, 37-38=-1092/0, 26-27=0/2655, 35-37=0/1905, 27-28=-765/12, 35-36=-942/22, 27-29=-229/226, 34-35=-202/159, 29-30=0/879, 33-34=-17/945, 30-31=-431/0, 32-33=-391/12, 7-49=-4489/251, 9-49=-4763/367, 9-51=-4992/308 10-52=-2393/279, 12-52=-5783/334, 14-19=-9336/551, 15-19=-442/8385, 14-21=-441/8353, 5-42=-2558/146, 15-18=-7758/466

NOTES

 4-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x6 - 2 rows

staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc. Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-7-0 oc. Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 -2 rows staggered at 0-9-0 oc, Except member 41-47 2x6 - 3 rows staggered at 0-4-0 oc, member 6-41 2x6 - 2 rows staggered at 0-4-0 oc. Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the

center of the member w/washers at 4-0-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- 4) 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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) 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.
- 7) 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.
- 8) Provide adequate drainage to prevent water ponding.
- 9) All plates are MT20 plates unless otherwise indicated.
- 10) All plates are 2x4 MT20 unless otherwise indicated.
- 11) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom
- chord and any other members, with BCDL = 10.0psf. 13) Ceiling dead load (5.0 psf) on member(s). 6-48, 48-49, 49-50, 50-51, 51-52, 52-53, 13-53; Wall dead load (5.0psf) on member(s).13-22, 6-40

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11735 lb uplift at joint 21.
- 16) LGT4-SDS3 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 45. This connection is for uplift only and does not consider lateral forces.
- 17) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17, 19, and 18. This connection is for uplift only and does not consider lateral forces.
- 18) 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 20) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 21) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 608 lb down and 52 lb up at 28-8-4, and 9100 lb down and 774 lb up at 16-1-4 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
- 22) Attic room checked for L/360 deflection.
- LOAD CASE(S) Standard
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (lb/ft) Vert: 1-2=-60, 2-7=-60, 7-12=-60, 12-17=-60, 45-54=-20, 22-40=-30, 6-48=-10, 48-49=-10, 46-49=-10, 46-50=-10, 50-51=-10, 51-52=-10, 52-53=-10, 13-53=-10 Drag: 13-22=-10, 40-47=-10, 6-47=-10 Concentrated Loads (lb)
 - Vert: 41=-4881 (F), 67=-326 (F)



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A06	Attic Girder	1	4	Job Reference (optional)	166814436

24000170	700				· •	Job R	eference (optio	nal)		
Carter Compo	onents (Sanford, NC), Sanfor	rd, NC - 27332,		Run: 8.73 S Jun 13 20 ID:pGeZvt1?IwruiNEY 28-6-11	24 Print: 8.730 S J xH4fkzRAp7-RfC?	lun 13 2024 M PsB70Hq3NS	iTek Industries, Ir gPqnL8w3uITXb	nc. Thu Jul 11 13:21 GKWrCDoi7J4zJC?	:49 f	Page: 1
	0 10 9 = = +0		17-8-0	25-10-14	32-9-4	~~ ~ ~ ~				
-	0-10-8 5-7-13	11-0-3 13-6-7	16-2-4 20-7-5	23-3-2	31-6-0	39-7-10	46	5-5-3	53-5-8	
(0-10-8 5-7-13	5-4-5 2-6-4	2-7-13 2-11-5 1-5-12	2-7-13 2-7-13 2-7-13	2-11-5 1-3-4	6-10-6	6	-9-9	7-0-5	
			6x8 ≈ 7 ∑	12x16= 4x5= 8 9 6110 1	4x8≈ 12x16= 1 12					
T		8x 5	10= 6 49 5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 						
	4x5	6 ² 4 = 60	Ħ	4x6 II 6x	8=		8x10 ≈ 1 115 2			
1-8-0	3 5	9		-1-14		/	63	4x5 x		
_	5x8 =			5				16	4x5	*
2-10-0									1	18 2 2 7 18 2 2 7 18 2 7 18 2 7
± ±	47 47 464 3x6= 464	5 44 64	65 4366 41 38	<u>37 95 93 92 730 28</u> 36 34 31 29	27 25 23	67 2	1 20	19		
	6x8= 4	4x8=	4x5॥ 3x5= 12x16=	3x5= 3x5= 3x5= 3x5= 3x8= 3x8	эхо= 3= 3x8=	M120	3x5 =			0.0-
			$8 \times 10 =$ 20 - 1 - 312	5 25-6-12 2	$x6 WB = 5x8 = 29_39_50_1 32_9_4$					
	0-5-8 5-7-13 6-6-	-0 11-0-3 15-9	18-5-8 9-11 16-5-0 18-7-421	22-11-4 28-4-4 -6-8 24-0-4 26-11-8 29-	-31-1-12 -5-0 -32-6-8	37-7-0 3	9-7-10 46	6-5-3	53-5-8	_
Scale = 1:93	0-5-8 5-2-5 0-10 .9	-3 4-6-3 4-9	9-9 0-7-5 0-1-121-4 2-0-81-6-8	4-12 1-1-0 1-4-12 1-0 1-4-12 1-6-8 1-4-12)-12 1-4-12 1-4-12	4-9-12	2-0-10 6	-9-9	7-0-5	,
Plate Offsets	s (X, Y): [7:0-8-0,0-3-4],	, [9:0-8-0,0-2-4], [12:0-	-10-8,0-2-12], [18:Edg	e,0-2-0], [23:0-3-8,0-2-8],	128:0-3-0,0-3-0], [43:0-8-0,	0-4-12], [46:0-3	-8,0-3-0]		
Loading	(psf) 20.0	Spacing	2-0-0 1 15		DEFL	in (l	oc) l/defl -43 >800 2	L/d PLATES	GRIP 244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC 0.7	3 Vert(CT)	-0.74 41	-43 >530 1	180 MT20HS	187/143	
BCLL	0.0*	Code	NO IRC2018/TPI2014	Matrix-MSH	Attic	-0.21 -0.24 23	-42 >809 3	n/a 360		
BCDL	10.0							Weight: 202	20 lb FT = 20	%
LUMBER TOP CHOR	D 2x6 SP No.2 *Excep 2.0E	ot* 5-7:2x4 SP 2400F	BOT CHORD	46-47=-124/440, 44-46= 43-44=-832/16083, 38-4 36-38=0/17735, 34-36=0	731/12075, I3=-686/16693, 0/18049,	1)	4-ply truss to l (0.131"x3") na Top chords co	be connected tog ails as follows: onnected as follow	ether with 10d vs: 2x6 - 2 row	'S
BOT CHOR	D 2x4 SP 2400F 2.0E No.2, 42-28,28-23:2	*Except* 47-45:2x6 S x4 SP No.2, 45-41:2x	P 6	31-34=0/18049, 29-31=0 25-29=-154/14351, 22-2 20-22=-780/16080, 19-2	0/16737, 25=-775/12144, 20=-737/15458		staggered at (Bottom chords)-9-0 oc, 2x4 - 1 r s connected as fo)-9-0 oc 2x4 - 1 r	ow at 0-9-0 oc llows: 2x6 - 2 ow at 0-9-0 oc	rows
WEBS	2x4 SP No.3 *Excep 6-43,6-52,47-2,43-4	ot* 8,52-13:2x6 SP No.2,		18-19=-737/15458, 40-4 39-40=-2303/0, 37-39=-	2=-790/31, 2303/0,		Web connecte 2 rows stagge	ed as follows: 2x4 red at 0-4-0 oc, E	- 1 row at 0-9 Except membe	-0 oc, 2x6 - r 43-48 2x6
OTHERS SLIDER	13-22:2x6 SP 2400F 2x4 SP No.3 Right 2x4 SP No.3	⁻ 2.0E, 46-2:2x4 SP N - 1-6-0	0.2	35-37=-3084/0, 33-35=- 32-33=-2967/0, 30-32=- 26-30=-1186/728, 24-26	3084/0, 2967/0, 5=-366/3070,		- 3 rows stagg rows staggere Attach BC w/	ered at 0-4-0 oc, ed at 0-9-0 oc. 1/2" diam. bolts (/	ASTM A-307)	2 2x6 - 2 in the
BRACING TOP CHOR	D Structural wood she	athing directly applied	l or WEBS	23-24=-366/3070 3-46=-5311/373, 3-44=-	238/4930,	2)	center of the r All loads are c	nember w/washe considered equall	rs at 4-0-0 oc. y applied to all	plies,
BOT CHOR	4-4-5 oc purlins, ex 2-0-0 oc purlins (6-0 D Rigid ceiling directly	cept end verticals, and)-0 max.): 7-12. g applied or 6-0-0 oc	d	4-44=-0977163, 5-43=-1 42-43=-614/7199, 6-42= 22-23=-712/6597, 13-23	∠4/1404, =-531/8734, 3=-513/7232,		CASE(S) sect provided to dis	ion. Ply to ply constribute only load	nnections have noted as (F)	e been or (B),
JOINTS	bracing. 1 Brace at Jt(s): 42.			6-49=-10641/684, 49-51 51-53=-11084/660, 53-5	=-10263/662, 54=-15528/928,	3)	unless otherw Unbalanced ro	ise indicated. oof live loads hav	e been consid	ered for
	51, 52, 53, 54, 26, 30, 37			50-54=-12362/771, 13-5 2-46=-673/12779, 7-49= 12-50=-204/3452, 7-51-	=-12999/808, -147/2360, -4776/262		this design.			
REACTION	S (size) 18= Mech 47=0-5-8	nanical, 22=0-5-8,		8-51=-469/63, 9-51=-42 9-52=-120/2270, 9-53=-	30/346, 4656/281,			THUN .		
	Max Uplift 18=-421 (45), 47=-6	(LC 12), 22=-5383 (LC 683 (LC 12)	2	10-53=-108/93, 10-54=- 11-54=-269/67, 12-54=- 23-25=0/1635, 24, 25 = 5	2535/279, 5373/307, 569/0_25-261	727/0	<u></u>	ORTH	SAD.	Viz.
	Max Grav 18=8904 47=11748	(LC 46), 22=793 (LC ⁻ 3 (LC 46)	12),	26-29=0/2288, 38-40=0/ 38-39=-499/9 29-30=-7	/1572, 28-29=-7 99/0	33/20,			1/200	27
FORCES	(lb) - Maximum Com Tension	pression/Maximum		37-38=-363/251, 30-31= 31-32=-542/0 35-36=-3	=0/1377, 36-37= 23/0, 31-33=-17	0/559, 2/5.	ti ti	S	EAL	
TOP CHOR	D 1-2=0/24, 2-3=-1349 4-6=-18572/1120, 6 7-8=-3098/528 8-9=	98/782, 3-4=-17368/10 -7=-6007/480, =-3095/527	033,	33-34=-22/125, 41-42=0 15-22=-629/212, 15-20=)/2662, 40-41=-{ 254/167,	 885/0,		03	6322	
	9-10=-3730/713, 10- 11-12=-1716/1437, 13-15=-17758/1029	-11=-1716/1437, 12-13=-4562/424, 15-16=-17909/1006	NOTES	5-44=-2270/112	04/101,			S MG	INEER	
	16-18=-17623/896,2	2-47=-11551/702						1, C.A.	GILBE	N.
								10.04 10	July 12,202	24

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available 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	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A06	Attic Girder	1	4	Job Reference (optional)	166814436

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:49

ID:pGeZvt1?lwruiNEY xH4fkzRAp7-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 2

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

- 4) 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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) 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.
- 7) 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.
- 8) Provide adequate drainage to prevent water ponding.
- 9) All plates are MT20 plates unless otherwise indicated.
- 10) All plates are 2x4 MT20 unless otherwise indicated. 11) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
- This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 13) Ceiling dead load (5.0 psf) on member(s). 6-49, 49-51, 51-52, 52-53, 53-54, 50-54, 13-50; Wall dead load (5.0 psf) on member(s).6-42, 13-23
- 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 40-42, 39-40, 37-39, 35-37, 33-35, 32-33, 30-32, 28-30, 26-28, 24-26, 23-24
- 15) Refer to girder(s) for truss to truss connections.
- 16) Bearing at joint(s) 47 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 17) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5383 lb uplift at joint 22 and 421 lb uplift at joint 18.
- 18) LGT4-SDS3 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 47. This connection is for uplift only and does not consider lateral forces.
- 19) 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.
- 20) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 21) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 22) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 9100 lb down and 774 lb up at 16-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 23) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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

Uniform Loads (lb/ft) Vert: 1-2=-60, 2-7=-60, 7-12=-60, 12-18=-60, 47-55=-20, 23-42=-30, 6-49=-10, 49-51=-10, 51-52=-10, 52-53=-10, 53-54=-10, 50-54=-10,

- 13-50=-10
- Drag: 42-48=-10, 6-48=-10, 13-23=-10
- Concentrated Loads (lb)
- Vert: 43=-4881 (F)

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/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)



24060/TP2-01 Ard Into	Job		Truss		Truss Type		Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH
Cater Components (Surfice, NC) Samore, NC: 2732. Data And 2024 Prist 2026 Juli 2026	24060178-0	01	A07		Attic		1	1	I66814437 Job Reference (optional)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Carter Compone	ents (Sanford, NC	C), Sanfor	d, NC - 27332,		Run: 8.73 S Jun 13 2 ID:1d5INYb SnpiaifH	2024 Print: 8.7 0e1reGzRBH	730 S Jun 13 IO-RfC?PsB7	3 2024 MiTek Industries, Inc. Thu Jul 11 13:21:50 Page: 1 70Ha3NSaPanL8w3uITXbGKWrCDoi7J4zJC?f
Mole Male Male Male Male Male 40 43 45 44 47 48 44		-0-10-8 - 0-10-8	8-4-0 8-4-0	<u> </u>	$\begin{array}{c} 20-7-5 \\ 4 & 17-8-0 \\ 4 & 1-5-12 \\ 6 & -2-11-5 \end{array}$	25-10-14 25-10-14 2-7-13 2-7-13 2-7-13	32-7 + <u>31-6-0</u> + 2-11-5 1-4	10-7 <u>39-</u> 4-7 6-	-4-14 46-3-13 53-5-8 -6-7 6-10-14 7-1-11
Image: Place Offsets (X, Y): [26:0-2:12,0-2:0]: [10:0-5-8,0-3:0]: [12:0-2:12,0-2:0]: [26:0-3-0,0-3:0	0-9-11 0-0-01-2 Scale = 1:97.7	5x8 = 1 2 42 MT18HS 3x10	52 = 8-4-0 8-4-0	6^{12} 4x6 = 4x5 = 354^{55} 53 41 62 5x8 = 13-11-0 5-7-0	4x8 = 6 4x8 = 6 4x8 = 6 4x8 = 6 4x8 = 4x8 = 4x8 = 4x8 = 4x8 = 4x8 = 4x8 = 5x8 = 17-9-12 16-5-0 20-7 16-2-4 19-2-82 2-3-4 1-4-2-82 1-4-2-12 1-4-2-	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$6x8^{3}$ 10 11 18 44 18 44 18 44 18 44 18 44 5 23 20 $5x6^{2}$ 1 $4x8^{2}$ $5x6^{2}$ 1 $4x8^{2}$ $6x10^{3}$ $6x10^{3}$ $6x10^{3}$ 10^{2} 29,310,032 $9,9032^{2}$ $6x10^{3}$ $4x3^{1}-12$	5x8\$ 12 12 12 12 12 12 12 12 12 12	$ \begin{array}{c} $
Loading TCLL (roof) (psf) 20.0 Plate Grip DOL TCL (roof) Spacing Plate Grip DOL 1.15 Rep Stress Incr CSI TC TC DEFL 0.97 in (loc) (loc) I/d IL/d PLATES Rep C 244/190 GRIP MT20 Sow (Pf) 20.0 TCDL 10.0 BCLL 0.0° Vert(CL) -0.77 31-33 >509 160 MT20 244/190 BCDL 0.0° Code IRC2018/TPI2014 Matrix-MSH No 15 n/a n/a LUMBER BOT CHORD 246 SP No.2 BOT CHORD 41.42=-107/219, 39-41=-18/3431, 36-39=0/3348, 33-6=0/5184, 31-33=0/6301, 36-39=0/3348, 33-6=0/5184, 31-33=0/6301, No.2, 16-154,0-23.2x4 SP 2400F 2.0E 20 Wind: ASCE 7-16; Vult=130mph (3-second gust) WEBS 2x4 SP No.1 BOT CHORD 41.42=-107/219, 39-41=-18/3431, 36-39=0/3348, 33-6=0/5184, 31-33=0/6301, 16-17=0/40421, 51-66-3/4042, 36-32=0/2348, 33-6=0/5184, 31-33=0/6301, 16-17=0/40421, 51-66-3/4042, 37-32 20 Wind: ASCE 7-16; Vult=130mph (3-second gust) WEBS 2x4 SP No.3 BOT CHORD 41-42=-107/219, 39-41740, 29-30=-11470, 36-38=-01790, 20-23=31740, 29-37374, 20-23=-31740, 37-32 34-35=-32740, 37-32 20 Wind: ASCE 7-16; Vult=130mph (3-second gust) WEDGE Right capingation partition partition partition partition part	Plate Offsets ([2:0-2- (X, Y): [38:Ed	12,0-2-0 ge,0-2-4], [6:0-5-8,0-3-0], [11:], [41:0-3-8,0-2-8]	0-5-8,0-3-01, 113,015-0	,0-4-8], [15:Edge,0-0-9]	, [1 7:0-2 -42	,0-3-4], [19	9:0-6-8,0-3-0], [26:0-3-0,0-3-0], [28:0-3-8,0-1-8],
LUMBER TOP CHORD 2x6 SP No.2 BOT CHORD 41.42=-107/219, 39.41=-18/3431, 36-39=0/3348, 33-36=0/5184, 31-33=0/6301, 28-31=0/6096, 25-28=0/4799, 20-25=0/1815, No.2, 18-15,40-23:2x4 SP 2400F 2.0E 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; BCDL=6.0psf; H=25ft; Usad=103mph; TCDL=6.0psf; BCDL=6.0psf; DCDL=6.0psf; D	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 0 BC 0 WB 0 Matrix-MSH	.97 Vert(I .95 Vert(0 .94 Horz(Attic	- _L) -0.4 CT) -0.7 CT) 0.7 -0.3	in (loc) I/defi L/d PLATES GRIP 47 31-33 >832 240 77 31-33 >509 180 15 15 n/a n/a 32 21-38 >604 360 Weight: 454 lb FT = 20%
Max Uplift 19=-53 (LC 15), 42=-29 (LC 14) Max Grav 15=2298 (LC 48), 19=1791 (LC 40), 42=3001 (LC 38) 20-24=-2166/0, 35-36=-1293/0, 24-25=0/2106, 33-35=0/1051, 25-26=-320/0, 33-34=-185/0, 25-27=-1406/0, 33-34=-185/0, 25-27=-1406/0, 33-34=-185/0, 25-27=-1406/0, 33-34=-185/0, 25-27=-1406/0, 33-34=-185/0, 25-27=-1406/0, 31-32=-365/27, 28-29=-534/0, 30-31=-6/96, 1-2=0/22, 2-3=-3960/13, 3-5=-4083/4, 5-6=-2145/100, 6-7=-2982/360, 7-8=-2982/360, 8-9=-3607/504, 9-10=-2740/396, 10-11=-2740/396, SEAL 036322 NOTES 1) Unbalanced roof live loads have been considered for this design 1) Unbalanced roof live loads have been considered for this design	LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD WEBS JOINTS REACTIONS FORCES TOP CHORD	2x6 SP No.2 2x4 SP No.1 No.2, 18-15, 2x4 SP No.3 No.2, 5-46,41-2,2C 35,25-27,33 No.2, 21-17: Right: 2x4 S Structural w 2-9-9 oc pur 2-0-0 oc pur 2-0	2 1 *Excep 40-23:2: 3 *Excep 0-21,36-: -32,28-2 :2x4 SP P No.3 ood she: flins, ex; flins (3-9 g directly dpt t(s): 45, 24, 35, 5= Mech 2=0-5-8 2=-190 (9=-53 (L 5=2298, 0), 42=3 um Com -3=-3960 00, 6-7= /396, 10-	t* 38-26,23-18:2x4 SI x4 SP 2400F 2.0E t* 5-39,12-19:2x6 SP 38,20-24,36-35,25-24 7,31-32,46-12:2x4 SF No.1 athing directly applied cept end verticals, an -8 max.): 6-11. applied or 2-2-0 oc 3-39, 13-21, 12-48 manical, 19=0-5-8, LC 12) C 15), 42=-29 (LC 14 (LC 48), 19=1791 (LC 001 (LC 38) pression/Maximum 0/13, 3-5=-4083/4, 2982/360, 3607/504, -11=-2740/396,	BOT CHORD 333- WEBS I or d NOTES 1) Unbalance this design	$\begin{array}{c} 41-42=-107/219, 39-41\\ 36-39=0/3348, 33-36=\\ 28-31=0/6096, 25-28=\\ 19-20=-2308/0, 17-19=\\ 16-17=0/4042, 15-16=\\ 37-38=-1137/0, 35-37=\\ 34-35=-3123/0, 32-34=\\ 30-32=-3174/0, 29-30=\\ 27-29=-3174/0, 29-30=\\ 27-29=-3174/0, 29-30=\\ 27-29=-3174/0, 29-30=\\ 27-24=0/3308, 21-22=\\ 34-1=-681/78, 3-39=-1\\ 38-39=-27/336, 5-38=(\\ 19-21=-1401/162, 12-2\\ 13-21=-575/314, 13-17\\ 13-21=-575/314, 13-17\\ 14-17=-554/207, 14-16\\ 5-43=-2080/21, 43-45=\\ 45-47=-1596/1329, 47-\\ 44-48=-2469/1529, 12-44\\ 2-41=0/3475, 6-43=0/2\\ 6-45=-342/1277, 7-45=\\ 8-45=-874/122, 8-46=(\\ 9-47=-6/131, 9-48=-92\\ 11-48=-314/1439, 20-22\\ 36-38=0/1559, 20-22=\\ 20-24=-2166/0, 35-36=\\ 24-25=0/2106, 33-35=\\ 24-25=0/2106, 33-35=\\ 24-25=0/2106, 33-35=\\ 24-25=0/2106, 32-35=\\ 32-33=-302/182, 27-22\\ 31-32=-365/27, 28-29=\\ 17-21=0/5333\\ \\ d \operatorname{roof}\operatorname{live}\operatorname{loads}\operatorname{have}\operatorname{be}$	I=-18/3431, 0/5184, 31- 0/4799, 20- 2112/0, -63/4042, 3123/0, 3123/0, 3123/0, 3123/0, 3123/0, 0/3308 49/358, 0/1190, 21=-46/1144 7=-270/90, -50/243, 2006/21, -48=-1798/4 4=-2566/25, 138/122, 0/62, 8-47=- 352/0, 36- 1293/0, 0/1051, 25- -1406/0, 3=0/1531, =-534/0, 30- een conside	33=0/6301 25=0/1815 25=0/1815 0, 1222, 0/450, -287/59, 8=-170/78, 37=-230/0, 26=-320/0, -31=-6/96, ered for	 Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25f; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-2 to 4-8-0, Interior (1) 4-8-0 to 10-1-6, Exterior(2E) 10-1-6 to 39-0-10, Interior (1) 39-0-10 to 48-1-6, Exterior(2E) 48-1-6 to 53-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (roof LL: 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. 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. Provide adequate drainage to prevent water ponding. All plates are MT20 plates upless otherwise indicated.

July 12,2024

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available form Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A07	Attic	1	1	Job Reference (optional)	166814437

- 8) All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom 9) chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom
- chord and any other members, with BCDL = 10.0psf. 11) Ceiling dead load (5.0 psf) on member(s). 5-43, 43-45, 45-46, 46-47, 47-48, 44-48, 12-44; Wall dead load (5.0psf) on member(s).5-38, 12-21
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 37-38, 35-37, 34-35, 32-34, 30-32, 29-30, 27-29, 26-27, 24-26, 22-24, 21-22
- 13) Refer to girder(s) for truss to truss connections.
- 14) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 42 and 19. This connection is for uplift only and does not consider lateral forces.
- 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) Attic room checked for L/360 deflection.
- LOAD CASE(S) Standard

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:50 ID:1d5INYb SnpjqifH0e1reGzRBHO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent oclapse 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 Schult before the Structure Building former the component component or the property damage. and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A08	Attic	6	1	Job Reference (optional)	166814438



Continued on page 2

Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE WARNING Design valid for use only with 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 Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road

Edenton, NC 27932

July 12,2024

A. GIL

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A08	Attic	6	1	Job Reference (optional)	166814438

- * 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, with BCDL = 10.0psf.
- Ceiling dead load (5.0 psf) on member(s). 4-42, 42-44, 44-45, 45-46, 46-47, 43-47, 11-43; Wall dead load (5.0psf) on member(s).4-37, 11-20
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 36-37, 34-36, 33-34, 31-33, 29-31, 28-29, 26-28, 25-26, 23-25, 21-23, 20-21
- 11) Refer to girder(s) for truss to truss connections.
- 12) 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.
 13) Graphical purlin representation does not depict the size
- or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:52 ID:h5TFO2tiZyfWTvVspKto8_zRQij-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/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	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A09	Attic Supported Gable	1	1	Job Reference (optional)	166814439



- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.
- 4) 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 5) design
- 6) Provide adequate drainage to prevent water ponding.

GILB

July 12,2024

SEAL

036322

A. GILLAN

Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE WARNING Design valid for use only with 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 overal 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)

68, 75 except 39=1109 (LC 40).

42=334 (LC 20), 45=369 (LC 20),

48=320 (LC 20), 51=320 (LC 20),

53=368 (LC 20), 56=331 (LC 20),

59=1127 (LC 40)

(lb) or less except when shown.

(lb) - Max. Comp./Max. Ten. - All forces 250

FORCES

Continued on page 2

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	A09	Attic Supported Gable	1	1	Job Reference (optional)	166814439
Carter Components (Sanford, NC	C), Sanford, NC - 27332,	Run: 8.73 E May 9.2	024 Print: 8.	730 E May 9	9 2024 MiTek Industries, Inc. Fri Jul 12 15:30:07	Page: 2

ID:8kdnaNVfrXy7X5iJovJ26tzRBB2-zWFC8E9hubW9EdFaZblVwJWNheDtfPC?GhqkkMyynN0

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.

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

16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent oclapse 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 BC21 Building Component Schult before the Structure Building former the component density and property density of the prevent to a structure and building former the prevent of the structure Building design. and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	B01	Common	1	1	Job Reference (optional)	166814440

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:53 ID:Nseaq6A9EjNfxKX1O6yXnly7LSU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:70.3 Plate Offsets (X, Y): [14:0-4-0,0-3-4]

												_	
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	0.65 0.86 0.51	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.47 -0.76 0.07	(loc) 14-17 14-17 2	I/defl >439 >271 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 133 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.1 2x4 SP No.3 Left 2x6 SP No.2 1 Structural wood shee 5-6-9 oc purlins, exc Rigid ceiling directly bracing. (size) 2=0-5-8, 1 Max Horiz 2=264 (LC 13=25 (LC 13=25 (LC 13=894 (L	1-6-0 athing directly applie cept end verticals. applied or 10-0-0 oc l2=0-3-8, 13=0-5-8 C 13) 14), 12=-101 (LC 1 C 14) C 5), 12=496 (LC 26) C 22)	3) 4) d or 5) 6) 7) 5), 8)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 overhangs m This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar One H2.5A S	57-16; Pr=20.0 psf .15); Pf=20.0 psf (s=1.0; Rough Cat =1.10 snow loads have b s been designed f psf or 1.00 times f fon-concurrent with s been designed f ad nonconcurrent with as been designed n chord in all areas by 2-00-00 wide wi y other members, Simpson Strong-Tire ad to controng-Tire ad to controng-Tire	F (roof LI Lum DC B; Fully peen col or great at roof I o ther li or a 10. with any f for a liv s where Il fit bett with BC e conne	L: Lum DOL= DL=1.15 Plate Exp.; Ce=0. hsidered for t er of min roo bad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20. a rectangle veen the bott DDL = 10.0ps ctors	1.15 e 9; his f live ssf on ads. Opsf com f.					
FORCES	(lb) - Maximum Com Tension 1-2=0/34, 2-4=-1149	pression/Maximum	9)	UPLIFT at jt(and does not H10A Simps	s) 2 and 13. This o t consider lateral fo on Strong-Tie con	connecti orces. nectors	on is for uplif recommende	ft only ed to					
3OT CHORD WEBS	6-8=-/21/180, 8-9=-3 9-11=-394/143 2-13=-251/724, 12-1 6-14=-104/474, 8-14 4-14=-398/238	357/114, 9-10=0/42, 3=0/198, 11-12=0/19 =-48/407, 8-13=-824	98 /78, 10)	connect truss This connect lateral forces This truss is International R802 10 2 au	s to bearing walls of ion is for uplift only a designed in accoro Residential Code and referenced stan	due to L y and do dance w sections	PLIFT at jt(s) bes not consid ith the 2018 s R502.11.1 a NSI/TPI 1) 12. der and				CA	BOAT -
 Unbalance this design Wind: ASG Vasd=103 II; Exp B; and C-C E to 8-7-0, E to 21-1-8, left and rig exposed; croationa 	ed roof live loads have n. CE 7-16; Vult=130mph mph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) -0-10-8 to 2 xterior(2R) 8-7-0 to 14 Exterior(2E) 21-1-8 to ght exposed ; end vertio 2-C for members and fe	been considered for (3-second gust) CDL=6.0psf; h=25ft; (velope) exterior zon 2-1-8, Interior (1) 2-1 -7-0, Interior (1) 14-7 24-1-8 zone; cantilee cal left and right orces & MWFRS for Le0 pleta grip	LO Cat. e -8 7-0 ver	AD CASE(S)	Standard							SEA 0363	L L L L L L L L L L L L L L L L L L L

to 8-7-0, Exterior(2R) 8-7-0 to 14-7-0, Interior (1) 14-7-0 to 21-1-8, Exterior(2E) 21-1-8 to 24-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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 oclapse 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 Schult before the Structure Building former the component component or the property damage. and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

818 Soundside Road Edenton, NC 27932

G A. GILLIN

July 12,2024

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	B02	Common Girder	1	2	Job Reference (optional)	166814441

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:53 ID:iFFKd9_s5HOVK9vBFwqTAGzRAMn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:75.4	4-1-14	3-0-9	3-0-9
Plate Offsets (X, Y): [1:Edge,0-2-5], [3:0-0-12,0-1-12], [11:0-	-4-0,0-7-8], [12:0	-8-4,0-1-12], [13:0-8-0,0-3-0]

		. , ,,,			1, 1	· •							
Loading TCLL (roof) Snow (Pf)	(psf) 20.0 20.0	Spacing Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15		CSI TC BC	0.28 0.34	DEFL Vert(LL) Vert(CT)	in -0.09 -0.16	(loc) 12-13 12-13	l/defl >999 >999	L/d 240 180	PLATES MT20	GRIP 244/190
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MSH	0.96		0.02	9	n/a	n/a		
BCDL	10.0											Weight: 480 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x6 SP No.2 2x10 SP 2400F 2.0E 2x4 SP No.2 Left: 2x4 SP No.3 Structural wood she 4-9-8 oc purlins. Rigid ceiling directly bracing. 1 Row at midpt (size) 1=0-5-8, ī Max Horiz 1=-227 (L Max Uplift 1=-167 (L 9=-711 (L Max Grav 1=8377 (L 9=11739	athing directly applie applied or 6-0-0 oc 5-9 7=0-7-12, 9=0-5-8 C 8) C 12), 7=-206 (LC 12 C 13) C 5), 7=686 (LC 19) ((C 6)	1) ed or 2) 2), 3)), 4)	2-ply truss to (0.131"x3") n Top chords of staggered at Bottom chord staggered at Web connec Except mem member 3-12 All loads are except if note CASE(S) see provided to d unless othern Unbalanced this design.	be connected tog alis as follows: connected as follow 0-9-0 oc. ds connected as follow 0-5-0 oc. ted as follows: 2x4 ber 2-13 2x4 - 2 ro 2 2x4 - 1 row at 0- considered equal ed as front (F) or b totion. Ply to ply co listribute only load wise indicated. roof live loads hav 7-16; Vult=130mf	yether wi ws: 2x6 - bllows: 2: 4 - 1 row bws stag 7-0 oc. ly applied back (B) f nnection is noted we been of the back of the back we been of the back of the back of the back of the back of the back of the back of the back of the back of the back of the back of the back of the back of the back of the back	th 10d 2 rows x10 - 2 rows at 0-9-0 oc, gered at 0-7-(d to all plies, face in the LC s have been as (F) or (B), considered for considered for	0 oc, DAD	10) LG con Thi late 11) Thi Inte R8(12) Use 14- spa enc bot 13) Use Tru con 14) Use 14-	T2 Simp nect trus s connect aral force s truss is rrnationa 02.10.2 a e Simpso 10dx1 1, hoced at 2 to 15-10 tom chore e Simpso ss) or econ nect trus e Simpso 10dx1 1,	son Stro ss to be ction is ss. desig and ref on Stro /2 Trus -0-0 oc 0-0 to on Stro quivale ss(es) /2 Trus /2 Trus /2 Trus	rong-Tie connect earing walls due for uplift only an ned in accordand dential Code sect erenced standar ng-Tie HTU26 (2 s, Single Ply Girt connect truss(es) ng-Tie LUS26 (4 nt at 17-10-0 for b back face of b ng-Tie HTU26 (1 s) or equivalent	ors recommended to to UPLIFT at jt(s) 9. d does not consider ewith the 2018 tions R502.11.1 and d ANSI/TPI 1. :0-10d Girder, der) or equivalent : 2-0-0 from the left) to back face of -10d Girder, 3-10d n the left end to ottom chord. 10-16d Girder, spaced at 2-0-0 oc
FORCES	(lb) - Maximum Com Tension 1-2=-9953/211, 2-3=	e-7412/201,		II; Exp B; En cantilever lef right exposed	closed; MWFRS (t and right expose d; Lumber DOL=1	envelope d ; end v .60 plate	e) exterior zon vertical left an grip DOL=1.0	d 60	cor 15) Fill	inect trus all nail h	ss(es) loles w Stai	to back face of b here hanger is in ndard	ottom chord. I contact with lumber.
BOT CHORD	3-4=-4664/199, 4-5= 6-7=-158/485 1-13=-236/7542, 12- 11-12=-136/5679, 9- 8-9=-159/77 7-8=-3	4612/215, 5-6=-64/ -13=-236/7542, -11=-23/1725, 03/61	182, 5)	TCLL: ASCE Plate DOL=1 DOL=1.15); I	7-16; Pr=20.0 ps .15); Pf=20.0 psf ls=1.0; Rough Cat	f (roof LL (Lum DC t B; Fully	:: Lum DOL=^ 0L=1.15 Plate Exp.; Ce=0.9	1.15);					ROMAN
WEBS	2-13=-42/3426, 2-12 3-12=-138/5477, 3-1 4-11=-181/5529, 5-1 5-9=-6674/227, 6-9=	2=-2668/180, 1=-4467/260, 1=-98/3925, =-291/311, 6-8=-521/	6) 7) 23	Unbalanced design. This truss ha	snow loads have l s been designed t	been cor for a 10.(with anv	nsidered for th) psf bottom other live load	nis ds.		4		SEA	L
NOTES			8) 9)	* This truss h on the bottor 3-06-00 tall b chord and ar One H2.5A S recommende UPLIFT at jt(and does not	as been designed n chord in all area by 2-00-00 wide w ly other members. Simpson Strong-Ti d to connect truss s) 1 and 7. This co t consider lateral f	d for a liv s where ill fit betw , with BC e connection onnection orces.	e load of 20.0 a rectangle veen the botto DL = 10.0psf ctors ing walls due n is for uplift o)psf om to only					22 EERTRAN

July 12,2024

Continued on page 2

Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE WARNING - 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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) with DSB-100 forms the prevent collapse control for stability and to property designing the descented on the prevent of the prevent of the prevention of the prevent of the pre and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	B02	Common Girder	1	2	Job Reference (optional)	166814441
Carter Components (Sanford, NC	Run: 8.73 S Jun 13	2024 Print: 8.	730 S Jun 13	3 2024 MiTek Industries, Inc. Thu Jul 11 13:21:53	Page: 2	

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:53 ID:iFFKd9_s5HOVK9vBFwqTAGzRAMn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

Uniform Loads (lb/ft) Vert: 1-4=-60, 4-7=-60, 14-17=-20

Concentrated Loads (lb)

Vert: 10=-1865 (B), 13=-1883 (B), 12=-1883 (B), 8=-872 (B), 22=-1883 (B), 23=-1883 (B), 24=-1883 (B), 25=-1865 (B), 26=-1865 (B), 27=-872 (B),

28=-860 (B)



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	B03	Common Supported Gable	1	1	Job Reference (optional)	166814442

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:53 ID:onyrICEMWITAUsFxYbXALJy7LR6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:67.9

Plate Offsets (X, Y): [10:0-2-8,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	1-11-4 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MR	0.26 0.22 0.16	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.04 -0.04 -0.02	(loc) 22-23 22-23 10	I/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 188 lb	GRIP 244/190 P FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N Structural 6-0-0 oc p Rigid ceili bracing. 1 Row at (size) Max Horiz Max Uplift	o.2 o.2 o.3 o.3 I wood she burlins, ex- ing directly midpt 10=17-6-(25=17-6-(35=17-6-(35=17-6-(35=-262 (10=-172 (24=-204 (26=-82 (L 31=-76 (L 31=-76 (L 31=-76 (L 31=-244 (10=475 (L 24=486 (I	athing directly applied cept end verticals. applied or 10-0-0 oc 9-29, 11-27, 8-30, 12 0, 21=0-3-8, 24=17-6 0, 26=17-6-0, 27=17-4 0, 30=17-6-0, 31=17-4 0, 30=17-6-0, 31=17-4 0, 33=17-6-0, 31=17-4 0, 21=-85 (LC 1 LC 13), 21=-85 (LC 1 LC 15), 25=-12 (LC 1 C 15), 25=-12 (LC 1 C 15), 27=-7 (LC 15) C 14), 30=-60 (LC 14 C 14), 32=-77 (LC 14 C 14), 34=-179 (LC 14 C 15), 21=340 (LC 2 C 26), 25=111 (LC 2	d or B ¹ 2-26 -0, 6-0, 6-0, (4), N (1), 1) (1), 2) (6), 2).	OP CHORD OT CHORD /EBS OTES) Unbalanced this design.) Wind: ASCE Vasd=103m II; Exp B; Er and C-C Co	2-35=-304/195, 1-2 3-4=-259/221, 4-5= 6-8=-253/357, 8-9= 10-11=-285/439, 1 12-14=-247/354, 14 15-16=-137/186, 11 17-18=-137/186, 11 17-18=-137/180, 13 -33=-27/100, 29- 27-29=-27/100, 20- 27-29=-27/100, 20- 9-29=-84/38, 11-27 6-31=-170/101, 5-3 3-34=-135/130, 12- 14-25=-132/77, 15- 16-23=-54/68, 17-22 roof live loads have 57-16; Vult=130mpl ph; TCDL=6.0psf; E closed; MWFRS (e rner(3E) -0-10-8 to	==-0/38, : -253/26 -270/40 -12=-2 +15=-2 5-17=-1 19=0/3 34=-27 30=-27, 30=-27, 27=-27 27=-27 27=-27 23=-27, 23=-27, 23=-27, 23=-27, 23=-27, 23=-27, 24=-26 2=-143 26=-16 24=-26 2=-81/7 e been of h (3-sec 3CDL=6 nvelope 2-1-8, E	2-332/271 5, 5-6235/3 7, 9-10=-285 72/409, 47/290, 59/128, 3, 18-20=-206 100, 10	, 308, 308, 3438, 5/122 72, 4/99, r ; Cat. ne -1-8	 4) TC Pl/2 DC Cs 5) Un de 6) Th loz ovv 7) All 8) Tr brz 9) Ga 9) Ga 10) Th cht 10) Th cht 11) * T on 3-ch 12) Be usi de 	LL: ASC ate DOL= DL=1.15); =1.00; C balancec sign. is truss h d of 12.0 erhangs i plates ar uss to be aced agai ble studs is truss h ord live lc his truss s the bottc D6-00 tall ord and a aring at j ing ANSI, signer sh	E 7-16 (1.15); Is=1.(1.15); Is=1.(1.10);	; Pr=20.0 psf (rc Pf=20.0 psf (Lu p; Rough Cat B; loads have bee en designed for g 1.00 times flat r incurrent with ott MT20 unless ott heathed from on eral movement (ed at 2-0-0 oc. en designed for a mconcurrent with seen designed for d ord in all areas w 00-00 wide will fif uer members, wit 10 considers pa angle to grain fo erify capacity of	n DOL=1.15 Plate Fully Exp.; Ce=0.9; n considered for this greater of min roof live oof load of 20.0 psf on her live loads. herwise indicated. le face or securely (i.e. diagonal web). a 10.0 psf bottom n any other live loads. r a live load of 20.0psf here a rectangle t between the bottom th BCDL = 10.0psf. arallel to grain value ormula. Building thearing surface.
FORCES	(lb) - Max Tension	26=214 (L 29=155 (L 31=211 (L 33=194 (L 35=389 (L imum Com	C 22), 27=140 (LC 6 C 5), 30=177 (LC 21 C 21), 32=196 (LC 2 C 30), 34=227 (LC 3 C 26) pression/Maximum),), (5), (0), 3)	to 8-7-0, Co to 21-0-8, C left and righ exposed;C-0 reactions sh DOL=1.60 Truss desig	rner(3R) 8-7-0 to 14 orner(3E) 21-0-8 to t exposed ; end vert C for members and lown; Lumber DOL= gned for wind loads	4-7-0, E 24-0-8 tical left forces a =1.60 pl in the p	xterior(2N) 14 zone; cantilev and right & MWFRS for ate grip	4-7-0 ver		ALTINUT LINE		52 SE4 036	

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.

A. GILDAN July 12,2024

GILB



Continued on page 2 WARNING - Ver Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE 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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) with DSB-100 forms the prevent collapse control for stability and to property designing the descented on the prevent of the prevent of the prevention of the prevent of the pre and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

818 Soundside Road Edenton, NC 27932

C

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	B03	Common Supported Gable	1	1	Job Reference (optional)	166814442
Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jun 13 2024 Print: 8.73(730 S Jun 13	3 2024 MiTek Industries, Inc. Thu Jul 11 13:21:53	Page: 2

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 172 lb uplift at joint 10.
- 14) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 35, 29, 27, 30, 31, 32, 33, 34, 26, 25, and 24. This connection is for uplift only and does not consider lateral forces.
- 15) H10A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 21. This connection is for uplift only and does not consider lateral forces.
- 16) 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

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:53 ID:onyrICEMWITAUsFxYbXALJy7LR6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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 oclapse 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 Schult before the Structure Building former the component component or the property damage. and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	C01	Half Hip	4	1	Job Reference (optional)	166814443

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:53 ID:Je5w06f8goBW?T4xbCQ60Kyfk?K-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



Prate Offsets (A, T). [2.0-3-1,0-0-1], [0.0-1-12,0-1-0]													
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	0.83	Vert(LL)	-0.08	8-9	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.14	8-9	>999	180			
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.03	8	n/a	n/a			
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH									
BCDL	10.0										Weight: 148 lb	FT = 20%	

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

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

overhands non-concurrent with other live loads. All plates are 3x5 MT20 unless otherwise indicated.

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3 *Except* 7-8:2x4 SP No.2 OTHERS 2x6 SP No.2 SLIDER Left 2x4 SP No.3 -- 1-6-0 BRACING TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. WEBS 1 Row at midpt 7-8, 6-8 REACTIONS 2=0-5-8 8=0-5-8 (size) Max Horiz 2=387 (LC 14) Max Uplift 2=-49 (LC 14), 8=-342 (LC 14) Max Grav 2=954 (LC 5), 8=1731 (LC 21) FORCES (Ib) - Maximum Compression/Maximum Tension TOP CHORD 1-2=0/23, 2-4=-1437/30, 4-6=-824/0, 6-7=-166/102, 7-8=-270/93 BOT CHORD 2-11=-399/1321, 9-11=-320/1321, 8-9=-159/721 4-11=0/263, 4-9=-691/185, 6-9=0/637, WEBS 6-8=-1026/227

NOTES

Scale = 1:71.5

LUMBER

- 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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 17-4-4, Exterior(2É) 17-4-4 to 20-4-4 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

chord live load nonconcurrent with any other live loads. * This truss has been designed for a live load of 20.0psf 7) on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

This truss has been designed for a 10.0 psf bottom

One H2.5A Simpson Strong-Tie connectors 8) recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 2. 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. 10) Hanger(s) or other connection device(s) shall be
- provided sufficient to support concentrated load(s) 752 Ib down and 128 lb up at 20-7-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

4)

5) 6)

- Dead + Snow (balanced): Lumber Increase=1.15, Plate 1) Increase=1.15 Uniform Loads (lb/ft)
 - Vert: 1-7=-60, 8-13=-20 Concentrated Loads (lb)
 - Vert: 8=-747



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



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	C02	Half Hip	1	1	Job Reference (optional)	166814444

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:54

Page: 1



2x4 II

3x5=

	3x8 II		2x4 u	3x5	5=		3x8=	
					3x5=			
		6-10-5		13-7-3		20-5-0	20-9-8	
	I	6-10-5	I	6-8-13	I	6-9-13	0-4-8	
Scale = 1:71.3								
Plate Offsets (X, Y): [1:0-5-1,Edge], [7:0-1-12,0-1-8]								

Loading	(psf)	Spacing	2-0-0		CSI	0.00	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.82	Vert(LL)	-0.08	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.63	Vert(CT)	-0.14	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.75	Horz(CT)	0.03	1	n/a	n/a		
BCLL	0.0*	Code	IRC2018	B/TPI2014	Matrix-MSH								FT 00%
BCDL	10.0											Weight: 146 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep 2x6 SP No.2 Left 2x4 SP No.3 Structural wood she 4-7-1 oc purlins, ex Rigid ceiling directly bracing. 1 Row at midpt (size) 1=0-3-8,	ot* 6-7:2x4 SP No.2 1-6-0 eathing directly applie ccept end verticals. / applied or 10-0-0 oc 6-7, 5-7 7=0-5-8	3) 4) 5) d or 6) : 7)	Unbalanced a design. 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 International	snow loads have b s been designed for ad nonconcurrent w has been designed in chord in all areas y 2-00-00 wide will by other members, simpson Strong-Tie d to connect truss s) 7 and 1. This co consider lateral for designed in accord Residential Codes	een cor or a 10.1 vith any for a liv s where I fit betw with BC e conne to bear nnectio orces. dance w sections	sidered for the opsilon bottom other live load e load of 20.0 a rectangle veen the bottu DDL = 10.0psilon clors ing walls due n is for uplift of ith the 2018 s R502.11.1 a	his Dpsf om f. to only and					
FORCES	Max Horiz 1=370 (L Max Uplift 1=-30 (L Max Grav 1=900 (L (lb) - Maximum Con Tension 1-3=-1401/30, 3-5=: 6.7=-265/95	C 14) C 14), 7=-342 (LC 14) C 5), 7=1714 (LC 20) npression/Maximum -812/0, 5-6=-162/100) 8)	R802.10.2 ar Hanger(s) or provided suff Ib down and design/select responsibility	nd referenced stan other connection of icient to support of 129 lb up at 20-7- tion of such connect of others.	dard AN device(s oncentra 0 on bo ction de	ISI/TPI 1.) shall be ated load(s) 7 ttom chord. vice(s) is the	'52 The					
BOT CHORD	1-10=-405/1286, 8- 7-8=-159/716	10=-319/1286,	1)	Dead + Sno Increase=1.	Standard ow (balanced): Lum 15	nber Inc	rease=1.15, I	Plate					Data
WEBS	3-10=0/254, 3-8=-6 5-7=-1018/227	58/185, 5-8=0/624,		Uniform Loa Vert: 1-6	ads (lb/ft) =-60, 7-12=-20						S.	RIF ON	20
NOTES 1) Wind: AS: Vasd=100 II; Exp B; and C-C B 17-4-4, E: members Lumber D 2) TCLL: AS Plate DOI DOL=1.1! Cs=1.00:	CE 7-16; Vult=130mpł 3mph; TCDL=6.0psf; B Enclosed; MWFRS (e Exterior(2E) 0-2-0 to 3- xterior(2E) 17-4-4 to 2/ and forces & MWFRS IOL=1.60 plate grip DC CE 7-16; Pr=20.0 psf (L 5); Is=1.0; Rough Cat I Ct=1.10	n (3-second gust) CDL-6.0psf; h=25ft; nvelope) exterior zon 2-0, Interior (1) 3-2-0)-4-4 zone;C-C for for reactions shown; DL=1.60 (roof LL: Lum DOL=1 .um DOL=1.15 Plate 3; Fully Exp.; Ce=0.9	Cat. e to .15	Concentrate Vert: 7=-	ed Loads (lb) 747								L 22 L L BER L L

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

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 Schult before the Structure Building former the Advance into (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



July 12,2024

A. GILLAN G

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	D01	Common Supported Gable	1	1	Job Reference (optional)	166814445

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:54 ID:8F2D?hHuvW?rb9K6OMb_Y2zRQrE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:56.9

Plate Offsets (X, Y): [7:0-2-8,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 IRC2018	3/TPI2014	CSI TC BC WB Matrix-MR	0.21 0.12 0.20	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(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 WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 14=18-6-(21=18-6-(24=18-6-(23=168))))))))))))))))))))))))))))))))))))	athing directly applied cept end verticals. applied or 6-0-0 oc), 15=18-6-0, 16=18-6), 18=18-6-0, 20=18-6), 22=18-6-0, 23=18-6) LC 12) C 11), 15=-163 (LC 19 C 15), 17=-117 (LC 19 LC 14), 22=-47 (LC 14 LC 14), 22=-47 (LC 14 LC 14), 22=-47 (LC 14 LC 14), 22=-47 (LC 24 LC 22), 17=255 (LC 22 LC 22), 20=227 (LC 24 LC 21), 22=172 (LC 24 LC 21), 24=206 (LC 26	W(1) or 2) -0, -0, -0, -0, -0, -0, -0, -0,	EBS 6 4 9 10 10 10 10 10 10 10 10 10 10 10 10 10	-20=-187/8, 8-18= -22=-142/94, 3-23 -17=-214/164, 10- 1-15=-170/170 oof live loads have 7-16; Vult=130mpl h; TCDL=6.0psf; E closed; MWFRS (e ter(3E) -0-10-8 to -12, Corner(3R) 6- to 16-2-4, Corner(3 and right exposed ;C-C for members shown; Lumber DC ted for wind loads i ds exposed to wint Industry Gable Er alifed building des 7-16; Pr=20.0 psf (L s=1.0; Rough Cat [-183/11 =-172/1 16=-14: a been of CDL=6 CDL=6 CDL=6 2-2-12, 2-12 to E) 16-2 I; end v oDL=1.6(in the pl d (norm of DE=1.6(in the pl d (nort LL jum DC B; Fully	, 5-21=-212/7 58, 3/90, considered fo .0psf; h=25ft;) exterior zor Exterior(2N) 12-2-4, Exter 4 to 19-4-8 z ertical left an ces & MWFR) plate grip ane of the tru al to the face ils as applical s per ANSI/TF .: Lum DOL= .: D Plate Exp.; Ce=0.5	r c Cat. ne ior ione; d ss), ble, PI 1. 1.15 ; 0;	12) * Th on tt 3-06 chor 13) Prov bear 24, 4 uplif joint 15. 14) This Inter R80 LOAD C	is truss ne botto -00 tall d and a d and a ride mee tring plat 48 lb up t at join 17, 46 truss is nationa 2.10.2 a ASE(S)	has be m cho by 2-0 ny oth chanic e capa lift at jt e 22, 10 b uplif d desig l Resis and ref) Sta	een designed for rd in all areas wh 0-00 wide will fit er members. al connection (by able of withstandi oint 14, 114 lb up 68 lb uplift at join ft at joint 16 and ned in accordand dential Code sect erenced standard ndard	a live load of ere a rectang between the ' others) of tri ng 71 lb uplif lift at joint 21 t 23, 117 lb u 163 lb uplift a :e with the 20 ions R502.11 d ANSI/TPI 1	20.0psf gle bottom uss to t at joint , 47 lb plift at t joint 118 1.1 and
FORCES TOP CHORD BOT CHORD	(lb) - Maximum Com Tension 2-24=-168/64, 1-2=(3-4=-106/91, 4-5=-9 6-7=-96/175, 7-8=-9 9-10=-76/119, 10-11 12-13=0/39, 12-14= 23-24=-105/187, 22 21-22=-105/187, 22 18-20=-105/187, 15 14-15=-105/187	pression/Maximum)/39, 2-3=-165/141, 3/116, 5-6=-115/233, 2/166, 8-9=-117/238, =-89/71, 11-12=-151/ -155/46 -23=-105/187, -21=-105/187, -18=-105/187, -16=-105/187,	, 5) 6) 116, 7) 8) 9) 10 11	Cs=1.00; Ct= Unbalanced s design. This truss have load of 12.0 p overhangs no All plates are Gable require Truss to be ft braced again) Gable studs s) This truss have chord live loa	1.10 snow loads have b s been designed fo psf or 1.00 times fla on-concurrent with 2x4 MT20 unless ss continuous botto illy sheathed from st lateral movemer spaced at 2-0-0 oc s been designed fo d nonconcurrent w	een cor or greate at roof lo other liv otherwi om chor one fac on fac or a 10.0	er of min roof pad of 20.0 ps re loads. se indicated. d bearing. e or securely iagonal web)) psf bottom other live loa	nis live sf on ds.				SEA 0363	L 22 EER ILBER	and the second which the

July 12,2024

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

TRENCO AMUAR Adjuar 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	D02	Common Girder	1	3	Job Reference (optional)	166814446

Scale = 1:58.5

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:54 ID:ahvaep5BsMWascBuTkn6buzRAib-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Page: 1



Plate Offsets (X, Y): [1:0-9-0,0-5-0], [5:0-9-0,0-5-0], [6:0-9-12,0-6-0], [8:0-9-12,0-6-0]

Loading TCLL (ro 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 NO IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.37 0.52 0.87	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.09 -0.15 0.02	(loc) 8-11 8-11 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Woight: 546 lb	GRIP 244/190
BCDL	10.0											Weight: 546 lb	FT = 20%
LUMBER TOP CHO BOT CHO WEBS WEDGE	0RD 2x6 SP No.2 0RD 2x12 SP 2400F 2.0E 2x4 SP No.2 *Excep Left: 2x4 SP No.3 Right: 2x4 SP No.3	: t* 8-2,6-4:2x4 SP No	4) 5.3	Wind: ASCE Vasd=103mp II; Exp B; En cantilever lef right exposed	7-16; Vult=130mp bh; TCDL=6.0psf; B closed; MWFRS (e t and right exposed d; Lumber DOL=1.	h (3-seo 3CDL=6 nvelope 1 ; end v 50 plate	cond gust) 0.0psf; h=25ft e) exterior zon vertical left an grip DOL=1.	;; Cat. ne; nd .60		Vert: 8= 16=-189 (B), 21=	-1893 97 (B), -1893	(B), 6=-1893 (B), 18=-1893 (B), 19 (B)	15=-5509 (B), =-1893 (B), 20=-1893
BRACIN TOP CHO	BRD Structural wood she 6-0-0 oc purlins.	athing directly applie	5) d or	TCLL: ASCE Plate DOL=1 DOL=1.15); I	7-16; Pr=20.0 psf .15); Pf=20.0 psf (s=1.0; Rough Cat	(roof LL _um DC B; Fully	: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9	1.15 9 9;					
BOT CHO	ORD Rigid ceiling directly	applied or 10-0-0 oc	; 6)	Unbalanced	snow loads have b	een cor	sidered for t	his					
REACTIO	Max Horiz 1=0-5-8, 5 Max Horiz 1=-181 (L Max Grav 1=14963	5=0-5-8 C 36) (LC 21), 5=10831 (L	7) C 6) 8)	design. This truss ha chord live loa * This truss h	s been designed fo ad nonconcurrent v	or a 10.0 /ith any for a liv) psf bottom other live loa	ads. Onsf					
FORCES	(lb) - Maximum Com	pression/Maximum	. 0)	on the botton	n chord in all areas	where	a rectangle	opsi					
	Tension DRD 1-2=-14218/0, 2-3=- 4-5=-12624/0 1 8=0/10021 6 8=0	14152/0, 3-4=-12497	7/0, 9)	3-06-00 tall b chord and an This truss is	by 2-00-00 wide wil ny other members, designed in accord	l fit betv with BC lance w	veen the bott DL = 10.0pst ith the 2018	om f.					
WEBS	3-8=0/10693, 2-8=-2 4-6=-157/266	243/269, 3-6=0/6972	, 10	R802.10.2 a	nd referenced stan	dard AN	SR502.11.1 a ISI/TPI 1. Sd Girder	and					200 - 20 - 50 - 50 - 50 - 50 - 50 - 50 -
NOTES				26-10dx1 1/2	2 Truss, Single Ply	Girder)	or equivalent	t				THE CA	Story To
 3-ply Top of follow Botto screw Web follow All lo exce 	truss to be connected toge hords connected with 10d is: 2x6 - 2 rows staggered a m chords connected with 5 vs as follows: 2x12 - 3 rows chords connected with 10d rs: 2x4 - 1 row at 0-9-0 oc. ads are considered equally t if noted as front (F) or ba	ther as follows: (0.131"x3") nails as at 0-9-0 oc. impson SDS 1/4 x 4. staggered at 0-4-0 o (0.131"x3") nails as applied to all plies, ck (B) face in the LO	-1/2 11 bc. 12	spaced at 2- end to 16-4- bottom choro) Fill all nail ho) Hanger(s) or provided suff lb down and design/selec responsibility	0-0 oc max. startin 12 to connect truss 1. Ides where hanger other connection of cicient to support of 536 lb up at 2-7-0 tion of such connect of others.	g at 4-4 (es) to l s in cor levice(s oncentra on bott ction de	-12 from the l back face of ttact with lum) shall be ated load(s) 8 om chord. Th vice(s) is the	left iber. 8869 he				SEA 0363	
Drovi	e(5) section. Ply to ply conr ded to distribute only loads	noted as (F) or (B)	LC 1)	Dead + Snr	Standard	her Inc	rease=1 15	Plate					20.2
unles 3) Unba	s otherwise indicated. lanced roof live loads have	been considered for		Increase=1 Uniform Loa	.15 ads (lb/ft)		10000-1.10,1	i iale				A GIN	BERNS

- Unbalanced roof live loads have been considered for 3) this design.
- Uniform Loads (lb/ft) Vert: 1-3=-60, 3-5=-60, 9-12=-20 Concentrated Loads (lb)

A. GILDON July 12,2024



A. GILB

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 oclapse 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 Schult before the Structure Building former the component component or the property damage. and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	E01	Common	1	1	Job Reference (optional)	166814447

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:54 ID:5YjLyPhGJKHB5AEdSp6x7Qy7LK3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:41.9

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(ps 20 20 10 0 10	sf) 1.0 1.0 1.0 1.0 1.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	1-11-4 1.15 1.15 YES IRC201	B/TPI2014	CSI TC BC WB Matrix-MR	0.40 0.29 0.03	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.00	(loc) 8 8 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 37 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103 II; Exp B; and C-C E to 5-4-8, E and right e C for men shown; LU 3) TCLL: AS Plate DOL DOL=1.15 C S=1 00: 1	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood 6-0-0 oc purlins Rigid ceiling dir bracing. (size) 7=0-3 Max Horiz 9=-11 Max Uplift 7=-38 Max Grav 7=46 (lb) - Maximum Tension 1-2=0/49, 2-3=- 4-5=0/49, 2-10= 9-10=-11/120, 8 6-7=-11/122 3-8=-26/84 ed roof live loads f n. CE 7-16; Vult=130 mph; TCDL=6.0p Enclosed; MWFR Exterior(2E) 0-10- Exterior(2E) 5-4-8 exposed ; end vert bers and forces 8 umber DOL=1.60 p CE 7-16; Pr=20.0 p 5); Is=1.0; Rough (Ct=1.10	d shea s, exc rectly 3-8, 9 14 (LC 60 (LC Comp -269/9 375 3-9=-1 have 0mph sf; BC S (en -8 to 2 to 8-4 tical la & MW plate 9 psf (L Cat B	athing directly applied explied or 10-0-0 oc =0-3-8 C 12) 15), 9=-38 (LC 14) : 22), 9=460 (LC 21) pression/Maximum 44, 3-4=-269/92, (177, 4-6=-375/175 11/122, 7-8=-11/122, been considered for (3-second gust) DDL=6.0psf; h=25ft; (velope) exterior zone 2-1-8, Exterior(2R) 2- -8 zone; cantilever le aft and right exposed FRS for reactions grip DOL=1.60 toof LL: Lum DOL=1. Im DOL=1.15 Plate ; Fully Exp.; Ce=0.9;	5) 6) 1 or 7) 8) 9) LC Cat. 51 1-8 5ft ;C- 15	This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss la on the bottor 3-06-00 tall l chord and at H10A Simps connect trus and 7. This of consider late This truss is International R802.10.2 a DAD CASE(S)	as been designed f psf or 1.00 times fi on-concurrent with is been designed fi ad nonconcurrent v has been designed in chord in all area by 2-00-00 wide win yo other members. on Strong-Tie con is to bearing walls of connection is for up ral forces. designed in accord designed in accord Residential Code ind referenced star Standard	for great lat roof la o other lin for a 10.0 with any I for a liv s where inectors i due to U plift only dance w sections ndard AN	er of min roo bad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20. a rectangle veen the bott recommende PLIFT at jt(s and does no ith the 2018 s R502.11.1 a ISI/TPI 1.	f live ads. 0psf tom ed to) 9 st and				SEA 0363	

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

CA. GILBURN July 12,2024



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 Schult before the Structure Building former the Advance into (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	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	G01	Monopitch	5	1	Job Reference (optional)	166814448

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:54 ID:PdAAD85_ICJN?UaWrZNnF5zRQu2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:64.6	
Plate Offsets (X, Y):	[2:0-2-0,0-1-8], [3:0-4-0,0-3-4]

	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	[]											
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	B/TPI2014	CSI TC BC WB Matrix-MSH	0.95 0.67 0.39	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.12 -0.20 -0.01	(loc) 7-8 7-8 7	I/defl >999 >923 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 106 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.1 *Excep 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood she 2-2-0 oc purlins, exx Rigid ceiling directly bracing. 1 Row at midpt (size) 7= Mecha Max Horiz 9=273 (LC Max Uplift 7=-221 (L Max Grav 7=831 (LC (lb) - Maximum Com	t* 1-3:2x4 SP No.2 t* 4-7:2x4 SP No.2 athing directly applie cept end verticals. applied or 10-0-0 oc 4-7, 3-7 inical, 9=0-5-8 C 14) C 5), 9=754 (LC 5) ipression/Maximum	4) 5) cd or 6) c 7) 8) 9)	Inis truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss ha chord and ar Refer to gird Provide mec bearing plate 7. This truss is International R802.10.2 a	as been designed psf or 1.00 times i on-concurrent with as been designed ad nonconcurrent has been designed m chord in all areas by 2-00-00 wide w hy other members er(s) for truss to tr hanical connectio e capable of withs designed in accon Residential Code nd referenced sta	for greats flat roof lo h other liv for a 10.0 with any d for a liv as where iill fit betw , with BC russ conr n (by oth tanding 2 rdance w sections ndard AN	ad of 20.0 p ve loads. D psf bottom other live loa e load of 20. a rectangle veen the bott DL = 10.0ps nections. ers) of truss 21 lb uplift a ith the 2018 6 R502.11.1 a SI/TPI 1.	ads. Opsf om f. to t joint					
TOP CHORD BOT CHORD WEBS NOTES 1) Wind: ASK Vasd=103 II; Exp B; and C-C E to 12-11-8 cantilever reactions DOL=1.60 2) TCLL: AS	Tension 1-2=0/27, 2-4=-677/ 4-7=-328/122, 2-9=- 8-9=-334/218, 7-8=- 3-8=0/313, 3-7=-768 CE 7-16; Vult=130mph Smph; TCDL=6.0psf; Bi Enclosed; MWFRS (err Exterior(2E) -0-10-8 to 2 3, Exterior(2E) -0-10-8 to 2 3, Exterior(2E) -0-10-8 to 2 3, Exterior(2E) -0-10-8 to 2 5, Exterior(2E) -0-10-8 to 2	119, 4-5=-12/0, 655/84 195/603, 6-7=0/0 3/250, 2-8=0/486 (3-second gust) CDL=6.0psf; h=25ft; vvelope) exterior zon 2-1-8, Interior (1) 2-1 to 15-11-8 zone; ; end vertical left orces & MWFRS for 1.60 plate grip roof LL: Lum DOL=1	LC Cat. e -8	OAD CASE(S)	Standard							SEA 0363	
Plate DOL DOL=1.15 Cs=1.00; 3) Unbalance design.	_=1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat E Ct=1.10 ed snow loads have be	um DOL=1.15 Plate 3; Fully Exp.; Ce=0.9 een considered for th	; is								NUN VIE		LBER LING



July 12,2024

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 Schult before the Structure Building former the Advance into (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	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	H01	Monopitch Supported Gable	2	1	Job Reference (optional)	166814449

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:54 ID:kX6Xm09JsM8Rk_RkgNonK3zRRGV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:43.9

Plate Offsets (X, Y): [2:Edge,0-0-14], [2:0-2-5,Edge], [10:0-0-8,0-1-8]

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 IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.99 0.36 0.21	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a -0.08	(loc) - - 17	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 68 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS WEDGE BRACING TOP CHORD BOT CHORD JOINTS REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep 2x4 SP No.3 Left: 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Except: 9-5-0 oc bracing: 12 Rigid ceiling directly bracing. 1 Brace at Jt(s): 18 (size) 2=10-1-0, 14=10-1-(17=10-1-0 Max Horiz 2=180 (L0 Max Uplift 2=-48 (L0 13=-9 (L0	t* 8-12:2x4 SP No.2 athing directly applie cept end verticals. -17 applied or 6-0-0 oc 12=10-1-0, 13=10-1), 15=10-1-0, 16=10- 0, 21=10-1-0 C 10), 21=180 (LC 10 2 21), 12=-72 (LC 21) 2 10) 14=-41 (L C 14)	W N(1) d or 2) -0, 1-0,)) 3)	EBS 3 5 7 9 0TES Wind: ASCE Vasd=103mp II; Exp B; Enc and C-C Exte to 16-0-0 zon vertical left at forces & MW DOL=1.60 W DOL=1.60 W Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I	i-16=-145/129, 4-1 i-14=-168/114, 7-1 7-18=-793/453, 10 I-18=-17/26 7-16; Vult=130mpl h; TCDL=6.0psf; E closed; MWFRS (e prior(2E) -0-10-8 to ie; cantilever left and nd right exposed; C FRS for reactions : ate grip DOL=1.60 ted for wind loads ds exposed to win. I Industry Gable Er alified building des 7-16; Pr=20.0 psf. 15); Pf=20.0 psf (l s=1.0; Rough Cat	5=-125/ 3=-31/5)-18=-8/ 0-18=-8/ CDL=6 nvelope 2-0-0, nd right -C for n shown; in the pl d (norm d Deta igner as (roof LL _um DC B; Fully	/76, i6, i01/464, i.0psf; h=25ft i) exterior zor Interior (1) 2- exposed; en nembers and Lumber lane of the tru al to the face ils as applica s per ANSI/TI :: Lum DOL= L=1.15 Plate Exp.; Ce=0.5	; Cat. ne 0-0 nd uss 2), ble, PI 1. 1.15 3 9;	11) Prov bear 12, 9 12) One reco UPL uplif 13) Non 14) This Inter R80 LOAD C	vide med ing plat 28 lb up H2.5A H2.5A IFT at jt t only an Standa truss is nationa 2.10.2 a ASE(S)	chanicc e capa lift at jc Simps ed to c (s) 17, nd doe rd bea d doe rd bea d doe rd bea d doe rd bea d doe rd bea d doe rd bea star	al connection (b bble of withstand on Strong-Tie co connect truss to , 2, 15, and 14. ⁻ is not consider la tring condition. I ned in accordan dential Code sec erenced standar ndard	y others) of truss to ing 72 lb uplift at joint uplift at joint 13. onnectors bearing walls due to Fhis connection is for ateral forces. Review required. ce with the 2018 stions R502.11.1 and rd ANSI/TPI 1.	
FORCES TOP CHORD BOT CHORD	15=-26 (L 17=-271 (13=129 (l 15=158 (l 17=875 (l (lb) - Maximum Com Tension 1-2=0/17, 2-3=-501/ 4-5=-425/425, 5-7=- 8-9=-444/630, 9-10= 12-17=0/0, 8-17=-36 2-16=-383/262, 15-1 14-15=-383/262	C 10), 16=-98 (LC 12 LC 10), 21=-48 (LC 22 C 14), 12=39 (LC 10) .C 1), 14=172 (LC 21 .C 1), 16=217 (LC 21 .C 21), 21=123 (LC 1 .pression/Maximum 428, 3-4=-457/422, 382/407, 7-8=-379/4 :-442/697, 10-11=-45 ;4/187 6=-383/262, :14=-383/262,	4), (1), (1), (1), (14) (14) (15) (14) (14) (15) (10) (Cs=1.00; Ct= Unbalanced s design. This truss have load of 12.0 p overhangs no All plates are Gable studs s This truss have chord live loa * This truss have chord and an * Discould have signer sho	1.10 snow loads have b s been designed fo osf or 1.00 times fla on-concurrent with 2x4 MT20 unless spaced at 2-0-0 oc s been designed fo d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide wil y other members. nt(s) 17 considers PI 1 angle to grain uld verify capacity	een cor or greate at roof lo other lin other wi or a 10.0 vith any for a liv where l fit betw parallel formula of beari	nsidered for the er of min roof pad of 20.0 po- ve loads. se indicated. D psf bottom other live load e load of 20.0 a rectangle veen the botto to grain valu a. Building ing surface.	his flive sfon dds. Opsf om ie		Constraints of the second second		SEA 0363	EER. K	•

July 12,2024

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

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	H02	Monopitch	6	1	Job Reference (optional)	166814450

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:55 ID:nLPVeuW3K4TytrtY3ILLguzRRHK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



0-4-8	5-2-13	10-2-4	10-5-8
0-4-8	4-10-5	4-11-7	0-3-4

Plate Offsets (X, Y): [2:Edge,0-0-14], [2:0-2-5,Edge], [6:0-0-8,0-1-8]

Scale = 1:48.2

		_												
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 0.36 0.50	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.03 -0.05 0.01	(loc) 9-10 9-10 9	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 66 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Except Left: 2x4 SP No.3 Structural wood shee 6-0-0 oc purlins, exc Except: 5-3-0 oc bracing: 9-1 Rigid ceiling directly bracing. (size) 2=0-3-0, 9 Max Horiz 2=207 (LC Max Uplift 2=-100 (L' Max Grav 2=377 (LC (lb) - Maximum Com Tension	t* 5-9:2x4 SP No.1 athing directly applie cept end verticals. 11 applied or 10-0-0 oc 0=0-5-8 0 10) C 10), 9=-371 (LC 10 0 1), 9=1084 (LC 21) pression/Maximum	3) 4) 5) d or 6) 7) 7) 8)	Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss f on the bottor 3-06-00 tall b chord and ar One H2.5A S recommende UPLIFT at jt(and does no' This truss is International R802.10.2 at	snow loads have b s been designed for posf or 1.00 times fla on-concurrent with s been designed for ad nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members. Simpson Strong-Tie d to connect truss s) 9 and 2. This co t consider lateral for designed in accord Residential Codes and referenced stan Standard	een cor or greate at roof k other liv or a 10.0 vith any for a liv s where l fit betw e connee to bear nnection rcces. lance w sections dard AN	isidered for the er of min roof pad of 20.0 p: re loads. 0 psf bottom other live load e load of 20.0 a rectangle reen the botto stors ng walls due n is for uplift of the the 2018 R502.11.1 a ISI/TPI 1.	his i live sf on ds. Opsf om to only und						
BOT CHORD WEBS NOTES 1) Wind: ASC Vasd=103 II; Exp B; I and C-C E	1-2=0/11, 2-3=-360/c 5-6=-456/707, 6-7=-4 5-11=-321/163 2-10=-230/338, 9-10 3-10=-124/211, 3-9= CE 7-16; Vult=130mph mph; TCDL=6.0psf; B(Enclosed; MWFRS (en Enclosed; MWFRS (en	 3-5393/405, 45/0, 9-11=-847/467, =-230/338, 8-9=0/0 -614/478, 6-11=-811 (3-second gust) CDL=6.0psf; h=25ft; velope) exterior 20n2 2-1-8. Interior (1) 2-1 	/468 Cat. = -8							4		TH CA	ROLU	

- to 16-0-0 zone; cantilever 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) 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

WARD THE PARTY OF and the market 03632 THE STREET July 12,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Institute (average and truss component description (trust phonemore) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	J01	Common	5	1	Job Reference (optional)	166814451

2)

3)

4)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:55 ID:yPXMLbyKekkHSiWSIZLGINzRR58-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

818 Soundside Road

Edenton, NC 27932



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	РВА	Piggyback	2	1	Job Reference (optional)	166814452

3-5-8

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:55 ID:RPY8AW_GFKIcY3mFoYebvHzRQqK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



11-10-14

3x5 =

1

Page: 1

Scale = 1:31.5													
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	0.08 0.04 0.04	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 8	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 52 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 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 2=11-10- 10=11-10 12=11-10 19=11-10 Max Horiz 2=52 (LC Max Upliff 2=-9 (LC Max Grav 2=125 (LC 10=240 (L 12=143 (L 12=143 (L 19=125 (L)	rathing directly applied rapplied or 10-0-0 oc 14, 8=11-10-14, -14, 11=11-10-14, -14, 13=11-10-14, -14, 15=11-10-14, -14 15), 15=52 (LC 18) 15), 11=-47 (LC 15) C 14), 14=-46 (LC 14 C 15), 19=-12 (LC 15) C 21), 8=125 (LC 22), -C 22), 11=243 (LC 2 -C 22), 15=125 (LC 2)	2) d or 3) 4) 5), (1), (2), 6) (1), (1), (1), (7) (8)	Wind: ASCE Vasd=103m II; Exp B; En and C-C Cor 3-11-0, Corr to 10-5-13, C cantilever lei right expose for reactions DOL=1.60 Truss desig only. For stu see Standar or consult qu TCLL: ASCE Plate DOL= ² DOL=1.15); Cs=1.00; Ct Unbalanced design. This truss ha load of 12.0 overhangs n All plates arc Gable requir	7-16; Vult=130m ph; TCDL=6.0psf; iclosed; MWFRS (rner(3E) 0-4-3 to 3 ier(3R) 3-11-0 to 9 Corner(3E) 10-5-1 ft and right exposed d;C-C for member shown; Lumber E ned for wind loads uds exposed to wi d Industry Gable F alified building de 7-16; Pr=20.0 psf ls=1.0; Rough Ca =1.10 snow loads have as been designed psf or 1.00 times on-concurrent wit e 2x4 MT20 unles res continuous hot	ph (3-sec BCDL=6 (envelope 3-4-3, Ext 9-11-0, E 3 to 13-5 ed; end v rs and fol DOL=1.60 s in the p ind (norm End Deta ssigner as sf (roof LL (Lum DC t B; Fully been cor for greate flat roof la h other lin s otherwit tom chore	ond gust) .0psf; h=25ft e) exterior zor erior(2N) 3-4 xterior(2N) 3-4 -13 zone; rertical left an ces & MWFF) plate grip lane of the tru al to the face ils as applica s per ANS/TI =1_15 Plate Exp.; Ce=0.5 asidered for the er of min roof bad of 20.0 p: re loads. se indicated. d bearing	; Cat. ne -3 to -3 to .11-0 nd RS Jss), ble, PI 1. 1.5 -9; his ? live sf on	14) See Deta con: LOAD C	Standa ail for C sult qua CASE(S	ard Indu onnect liffied b) Star	ustry Piggyback ² ion to base truss uilding designer. ndard	Truss Connection as applicable, or
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance this design	(lb) - Maximum Com Tension 1-2=0/17, 2-3=-46/3 4-5=-64/116, 5-6=-6 7-8=-30/26, 8-9=0/1 2-14=-9/67, 13-14=- 11-12=-9/67, 10-11= 5-12=-102/0, 4-13=- 6-11=-207/124, 7-10 ed roof live loads have n.	npression/Maximum 3, 3-4=-56/50, 4/116, 6-7=-56/50, 7 9/67, 12-13=-9/67, 9/67, 8-10=-9/67 207/124, 3-14=-183/ D=-183/114 been considered for	9) 9) 10 11 114, 12 13	Gable studs (Gable studs) This truss has chord live loc (This truss has on the bottoo 3-06-00 tall chord and ar (One H2.5A Strecommend UPLIFT at jtt is for uplift o This truss is International R802.10.2 a	spaced at 2-0-0 c spaced at 2-0-0 c as been designed ad nonconcurrent has been designe m chord in all area by 2-00-00 wide w hy other members Simpson Strong-T ed to connect trus (s) 2, 8, 13, 14, 11 nly and does not c designed in accol Residential Code nd referenced sta	for a 10.0 with any d for a liv as where vill fit betv as to bear 1, and 10 consider l rdance w e sections ndard AN	D psf bottom other live loa e load of 20.0 a rectangle veen the botto ctors ing walls due This connec ateral forces, ith the 2018 R 502.11.1 a ISI/TPI 1.	ds. Dpsf om to tion				SEA 0363	L 22 EER-Friday

July 12,2024



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	PBA1	Piggyback	18	1	Job Reference (optional)	166814453

TCDL

BCLL

BCDI

WEBS

NOTES

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:55 ID:Cx19sF4HMnJTVINoGDnTDzzRQqC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



July 12,2024

Page: 1

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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)



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	PBA2	Piggyback	2	4	Job Reference (optional)	166814454

Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

TCDL

BCLL

BCDI



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

LOAD CASE(S) Standard

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. REACTIONS (size) 2=11-10-14, 6=11-10-14, 8=11-10-14, 9=11-10-14, 10=11-10-14, 11=11-10-14, 15=11-10-14 Max Horiz 2=52 (LC 18), 11=52 (LC 18) Max Uplift 2=-11 (LC 15), 6=-4 (LC 11), 8=-87 (LC 15), 10=-87 (LC 14), 11=-11 (LC 15), 15=-4 (LC 11) Max Grav 2=86 (LC 1), 6=86 (LC 1), 8=423 (LC 22), 9=302 (LC 21), 10=423 (LC 21), 11=86 (LC 1), 15=86 (LC 1) FORCES (lb) - Maximum Compression/Maximum Tension 1-2=0/17, 2-3=-53/45, 3-4=-123/96, TOP CHORD 4-5=-123/96 5-6=-33/45 6-7=0/17 BOT CHORD 2-10=-8/47, 9-10=-2/46, 8-9=-2/46, 6-8=-8/47 WEBS 4-9=-215/91, 3-10=-375/198, 5-8=-375/198 NOTES 1) 4-ply truss to be connected together as follows:

6-0-0 oc purlins.

Structural wood sheathing directly applied or

Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc. Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.

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

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-3 to 3-4-3, Interior (1) 3-4-3 to 3-11-0, Exterior(2R) 3-11-0 to 9-11-0, Interior (1) 9-11-0 to 10-5-13, Exterior(2E) 10-5-13 to 13-5-13 zone; cantilever left and right exposed ; end vertical left and right exposed:C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOI = 1.60

- Truss designed for wind loads in the plane of the truss 5) 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
- 6) 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 7) design.
- 8) 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.
- Gable requires continuous bottom chord bearing. 9)
- 10) Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom 11)chord live load nonconcurrent with any other live loads
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 6, 10, and 8. This connection is for uplift only and does not consider lateral forces.

CAR 6 NAMES OF THE OWNER NAME TO THE SEAL 36322 GILB July 12,2024

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	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLB1	Valley	1	1	Job Reference (optional)	166814455

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:55 ID:uRu6rMLa1rImrJyJNhjxxpzRQsR-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLB2	Valley	1	1	Job Reference (optional)	166814456

9-7-5

9-7-5

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

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:56 ID:yJIn UX?VSBe9dbBmLUS1zzRQsC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

18-10-8

9-3-3

Page: 1

19-2-10

0-4-2



Design value for use only with with exercising the based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and property incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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 AVALATIAN VI

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLB3	Valley	1	1	Job Reference (optional)	166814457

Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

FORCES

WEBS

NOTES

1)

2)

TCDL

BCLL

BCDI

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:56 ID:4pahjxh9RSqoCd5h0aDV3jzRQs?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Edenton, NC 27932

THILL MAN G

July 12,2024

WAARD REALT

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLB4	Valley	1	1	Job Reference (optional)	166814458

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:56 ID:CKtcSNrINSSyGdaBHoyY5SzRQro-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

GRIP

244/190

FT = 20%



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

 REACTIONS (size)
 1=14-5-0, 5=14-5-0, 6=14-5-0, 7=14-5-0, 8=14-5-0

 Max Horiz
 1=-136 (LC 10)
 Max Uplit
 1=-29 (LC 10), 6=-154 (LC 15), 8=-156 (LC 14)

 Max Grav
 1=109 (LC 25), 5=100 (LC 24), 6=454 (LC 21), 7=401 (LC 24),
 1=00
 1<00</th>
 1<0
- 8=452 (LC 20) FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-2=-141/139, 2-3=-178/119, 3-4=-177/112, 4-5=-122/104
- BOT CHORD 1-8=-59/119, 7-8=-59/99, 6-7=-59/99, 5-6=-59/99 WEBS 3-7=-223/0, 2-8=-374/196, 4-6=-375/195
- NOTES

Scale = 1:43.4

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

TCDL

BCLL

BCDL

- 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) 0-4-13 to 3-2-13, Interior (1) 3-2-13 to 4-2-13, Exterior(2R) 4-2-13 to 10-2-13, Interior (1) 10-2-13 to 11-2-13, Exterior(2E) 11-2-13 to 14-5-5 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

- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads. 9) * This truss has been designed for a live load of 20.0psf
- on the bottom chord in all areas where a rectangle
 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 10) Provide mechanical connection (by others) of truss to
- bearing plate capable of withstanding 29 lb uplift at joint 1, 156 lb uplift at joint 8 and 154 lb uplift at joint 6.
- 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



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



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLB5	Valley	1	1	Job Reference (optional)	166814459

6-0-2

6-0-2

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

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:56 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

11-8-1

5-8-0

2x4 II 15 4

Page: 1



12-0-3

Scale = 1:39.1

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 IRC2018/	TPI2014	CSI TC BC WB Matrix-MSH	0.31 0.12 0.08	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 50 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 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=12-0-3 7=12-0-3 Max Horiz 1=-113 (I Max Uplift 1=-38 (LC 6=-136 (I Max Grav 1=77 (LC (LC 21),	eathing directly applied y applied or 10-0-0 oc ; 5=12-0-3, 6=12-0-3, ; 8=12-0-3 _C 10) C 10), 5=-6 (LC 11), _C 15), 8=-138 (LC 14) ; 30), 5=71 (LC 24), 6=4 7=259 (LC 21), 8=432 (3) 4) 5) 6) 7) 8) 434 9) LC	Truss desig only. For stu see Standar or consult qu TCLL: ASCE Plate DOL=1.15); Cs=1.00; Ct Unbalanced design. Gable requir Gable studs This truss ha chord live loa * This truss h on the bottor	ned for wind load dids exposed to w d Industry Gable lalified building do 7-16; Pr=20.0 psf is=1.0; Rough Ca =1.10 snow loads have es continuous bo spaced at 4-0-0 d is been designed ad nonconcurrent tas been designed ad nonconcurrent tas been designed ad nonconcurrent tas been designed ad nonconcurrent tas been designed	s in the p nd (norm End Deta ssigner as of (roof LL (Lum DC t B; Fully been cor tom chor oc. for a 10.0 with any d for a liv as where will fit beby	lane of the trr lane of the trr al to the face ils as applica s per ANSI/TI :: Lum DOL= DL=1.15 Plate Exp.; Ce=0.1 nsidered for the rd bearing. D psf bottom other live loa re load of 20.1 a rectangle	uss), ble, PI 1. 1.15 9; his ds. Dpsf					
FORCES	20) (lb) - Maximum Con Tension	npression/Maximum	10)	chord and ar Provide mec bearing plate	ny other members hanical connections capable of withs	s. n (by oth tanding 3	ers) of truss 88 lb uplift at j	to oint					
TOP CHORD BOT CHORD WEBS	1-2=-114/100, 2-3= 4-5=-89/63 1-8=-32/73, 7-8=-30 5-6=-30/73 3-7=-171/0, 2-8=-40	-219/116, 3-4=-218/115 0/73, 6-7=-30/73, 00/215, 4-6=-401/220	i, 11)	1, 6 lb uplift a uplift at joint This truss is International R802.10.2 a	at joint 5, 138 lb u 6. designed in acco Residential Code nd referenced sta	plift at joi rdance w sections ndard AN	int 8 and 136 ith the 2018 R502.11.1 a NSI/TPI 1.	lb Ind				TH CA	Bolle

- 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) 0-4-13 to 3-4-13, Exterior(2R) 3-4-13 to 9-0-8, Exterior(2E) 9-0-8 to 12-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

LOAD CASE(S) Standard



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Institute (average and truss component description (trust phonemore) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLB6	Valley	1	1	Job Reference (optional)	166814460

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:56 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



9-7-6

Scale =	: 1:33.2

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.44	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.42	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.18	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH								
BCDL	10.0					-						Weight: 37 lb	FT = 20%
LUMBER TOP CHORD	2x4 SP No.2		4)	TCLL: ASCE	E 7-16; Pr=20.0 p 1.15); Pf=20.0 ps	sf (roof LL f (Lum DC	.: Lum DOL=)L=1.15 Plate	1.15					
BOT CHORD	2x4 SP No.2			DOL=1.15);	Is=1.0; Rough C	at B; Fully	Exp.; Ce=0.9	9;					
OTHERS	2x4 SP No.3			Cs=1.00; Ct	=1.10								
BRACING			5	Unbalanced	snow loads have	e been cor	nsidered for th	nis					
TOP CHORD	Structural wood she 9-7-6 oc purlins.	eathing directly appli	ed or 6	design. Gable requir	es continuous bo	ottom chor	d bearing.						
BOT CHORD	Rigid ceiling directly bracing.	/ applied or 6-0-0 oc	8	 Gable studs This truss has a board live to be and live to be and live to be a study of the study	spaced at 4-0-0 as been designed	oc. d for a 10.0) psf bottom	مام					
REACTIONS	(size) 1=9-7-6,	3=9-7-6, 4=9-7-6	Q,	* This truss I	au nonconcurren	ed for a liv	other live loa	us. Insf					
	Max Horiz 1=-89 (LC	C 10)	5	on the botto	m chord in all are	as where	a rectangle	psi					
	Max Uplift 1=-58 (LC 4=-106 (L	C 21), 3=-47 (LC 20) _C 14)	,	3-06-00 tall I	by 2-00-00 wide	will fit betv	veen the botto	om					
	Max Grav 1=75 (LC (LC 20)	20), 3=94 (LC 21),	4=767 10) Provide med	chanical connection	on (by oth	ers) of truss t	0 oint					
FORCES	(lb) - Maximum Con Tension	npression/Maximum	1	1, 47 lb uplif	t at joint 3 and 10)6 lb uplift	at joint 4.	oint					
TOP CHORD	1-2=-110/369, 2-3=-	-112/366	1	International	Residential Cod	e sections	R502 11 1 a	nd					
BOT CHORD	1-4=-241/170, 3-4=-	-241/170		R802 10 2 a	nd referenced st	andard AN	ISI/TPI 1	ind ind					
WEBS	2-4=-632/265		Ŀ	OAD CASE(S)	Standard								
NOTES			-										
1) Unbalance this desig	ed roof live loads have n.	been considered fo	r									- ALLANIA	un no
O) 14/ 1 4 O		(0 1)										1. 化物理学学校 化化学学校 化化学学校	Della Transfer Contractor

this design. Wind: ASCE 7-16; Vult=130mph (3-second gust) 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) 0-4-13 to 3-4-13, Exterior(2R) 3-4-13 to 6-7-11, Exterior(2E) 6-7-11 to 9-7-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS

for reactions shown; Lumber DOL=1.60 plate grip

DOL=1.60 Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), 3) see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. and the second second CU CULTURAN SEAL 036322 THE MAN G July 12,2024

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 frusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **PCB Building Component Scitut Information**. Building from the Structure Building Component Advance interpretation and the properties and truss of the properties and the properties and truss of the properties and the p and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLB7	Valley	1	1	Job Reference (optional)	166814461

3-7-5

3-7-5

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

Scale = 1:29.1 Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

WEBS

NOTES

1)

2)

3)

TOP CHORD

BOT CHORD

this design

DOL=1.60

TCDL

BCLL

BCDI

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:56 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4x5 =

6-10-8

3-3-3

Page: 1

2 10 3-0-5 2-8-12 10 Г 19 3 4 2x4 ı 3x5 🖌 3x5 💊 7-2-10 L/d 2-0-0 CSI DEFL l/defl PLATES GRIP (psf) Spacing in (loc) 20.0 Plate Grip DOL 1.15 TC 0.25 Vert(LL) n/a n/a 999 MT20 244/190 20.0 1 15 BC 0.26 Lumber DOL Vert(TL) n/a n/a 999 10.0 Rep Stress Incr YES WB 0.09 Horiz(TL) 0.00 4 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MP FT = 20% 10.0 Weight: 27 lb 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 2x4 SP No.2 2x4 SP No.2 DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 2x4 SP No.3 Cs=1.00; Ct=1.10 Unbalanced snow loads have been considered for this 5) desian. Structural wood sheathing directly applied or Gable requires continuous bottom chord bearing. 6) 7-2-10 oc purlins. 7) Gable studs spaced at 4-0-0 oc. Rigid ceiling directly applied or 6-0-0 oc 8) This truss has been designed for a 10.0 psf bottom bracing. chord live load nonconcurrent with any other live loads. **REACTIONS** (size) 1=7-2-10, 3=7-2-10, 4=7-2-10 9) * This truss has been designed for a live load of 20.0psf Max Horiz 1=-66 (LC 10) on the bottom chord in all areas where a rectangle Max Uplift 1=-26 (LC 21), 3=-14 (LC 20), 3-06-00 tall by 2-00-00 wide will fit between the bottom 4=-70 (LC 14) chord and any other members. Max Grav 1=71 (LC 20), 3=103 (LC 21), 10) Provide mechanical connection (by others) of truss to 4=523 (LC 20) bearing plate capable of withstanding 26 lb uplift at joint (lb) - Maximum Compression/Maximum 1, 14 lb uplift at joint 3 and 70 lb uplift at joint 4. Tension 11) This truss is designed in accordance with the 2018 1-2=-83/223, 2-3=-87/223 International Residential Code sections R502.11.1 and 1-4=-176/150, 3-4=-176/150 R802.10.2 and referenced standard ANSI/TPI 1. 2-4=-415/192LOAD CASE(S) Standard Unbalanced roof live loads have been considered for 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) 0-4-13 to 3-7-10, Exterior(2R) 3-7-10 to 4-2-14, Exterior(2E) 4-2-14 to 7-2-14 zone; WITTER TOTAL TANK WAARD REVEL cantilever left and right exposed ; end vertical left and SEAL right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip 36322 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. G July 12,2024 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 Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLB8	Valley	1	1	Job Reference (optional)	166814462

2-4-14

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

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:57 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-5-11

4-9-13

3

Page: 1



4-9-13

Scale = 1:26 _

Loading	(psf)	Spacing	2-0-0	CSI	0.08	DEFL	in n/a	(loc)	l/defl	L/d	PLATES	GRIP
Spow (Pf)	20.0		1.15	BC	0.00	Vert(LL)	n/a	-	n/a	999	101120	244/190
	20.0	Ren Stress Incr	VES	WB	0.11	Horiz(TL)	0.00	- 3	n/a	999 n/a		
BCLL	0.0	* Code	IRC2018/TPI2014	Matrix-MP	0.04		0.00	0	n/a	n/a		
BCDL	10.0		11(02010/11/2014								Weight: 17 lb	FT = 20%
											0	
LUMBER			5) Unbalance	d snow loads have	been cor	nsidered for t	his					
TOP CHORD	2x4 SP No.2		6) Gable reg	ires continuous hot	tom chor	d bearing						
OTHERS	2x4 SP N0.2 2x4 SP No 3		7) Gable stud	s spaced at 4-0-0 o		u bearing.						
BBACINC	274 01 10.5		8) This truss	has been designed	for a 10.0	0 psf bottom						
	Structural wood s	heathing directly applie	chord live l	oad nonconcurrent	with any	other live loa	ads.					
	4-9-13 oc nurlins	nearing directly applied	9) * This truss	has been designe	d for a liv	e load of 20.	0psf					
BOT CHORD	Rigid ceiling direc	tly applied or 6-0-0 oc	on the bott	om chord in all area	as where	a rectangle						
	bracing.	.,	3-06-00 tal	l by 2-00-00 wide w	vill fit betw	veen the bott	om					
REACTIONS	(size) 1=4-9-	13, 3=4-9-13, 4=4-9-13	3 chord and	any other members								
	Max Horiz 1=-43 (LC 10)	10) Provide me	echanical connectio	n (by oth tonding 7	ers) of truss	IO vint 3					
	Max Uplift 3=-7 (L	C 15), 4=-30 (LC 14)	and 30 lb i	Indiff at ioint 4	tanung <i>i</i>	ib upilit at jo	Jint 5					
	Max Grav 1=58 (l	.C 20), 3=86 (LC 21), 4	4=285 11) This truss i	s designed in accor	rdance w	ith the 2018						
	(LC 20)		Internation	al Residential Code	sections	R502.11.1 a	and					
FORCES	(lb) - Maximum C	ompression/Maximum	R802.10.2	and referenced sta	ndard AN	ISI/TPI 1.						
	Tension	70/00	LOAD CASE(S	 Standard 								
POT CHORD	1-2=-01/98, 2-3=-	79/99 90/95										
BUT CHURD	1-4=-80/85, 3-4=-	80/85										
NOTEO	2-4203/92											
NUIES	ad raaf live loade be	ve heen eeneidered fe	-									
this design	n	ve been considered to	I									a contraction
2) Wind: AS	CE 7-16: Vult=130m	ph (3-second aust)									- Thinning	111111
Vasd=103	Bmph; TCDL=6.0psf;	BCDL=6.0psf; h=25ft;	Cat.								N'TH CA	Roll
II; Exp B;	Enclosed; MWFRS	envelope) exterior zor	ne								A Virce	O WY
and C-C E	Exterior(2E) zone; ca	intilever left and right								<u> </u>	FEOG	PW. SI
exposed ;	end vertical left and	right exposed;C-C for							4	\mathcal{D}		
members	and forces & MVVFF	tor reactions shown	;						1			
2) Truce do	Signod for wind load	JUL= 1.00 s in the plane of the tru	100								SEA	
only For	studs exposed to wi	nd (normal to the face))						7		0262	oo 🏄 🗧
see Stand	ard Industry Gable	End Details as applical	ble.							THE REAL PROPERTY AND INCOMENTS	0505	46 🕴 💈
or consult	qualified building de	signer as per ANSI/TF	ๆ 1.						3			
4) TCLL: AS	CE 7-16; Pr=20.0 ps	f (roof LL: Lum DOL=	1.15						}		A	R. L S
Plate DOL	L=1.15); Pf=20.0 psf	(Lum DOL=1.15 Plate								1,5	S. GIN	EFR
DOL=1.15	5); Is=1.0; Rough Ca	t B; Fully Exp.; Ce=0.9	Э;							1	.'C	IL BEIN
Cs=1.00;	Ct=1.10									1	11, A. C	ill just
											· · · · · · · · · · · · · · · · · · ·	LIII.
											Jub	v 12 2024

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 Schult before the Structure Building former the Advance into (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



July 12,2024

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLD1	Valley	1	1	Job Reference (optional)	166814463

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:57 ID:?VRASUfm0qfd3oFPBHC5FHzRQud-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

GRIP

244/190

FT = 20%



LUMBER		
TOP CHORD	2x4 SP N	0.2
BOT CHORD	2x4 SP N	0.2
OTHERS	2x4 SP N	0.3
BRACING		
TOP CHORD	Structural	wood sheathing directly applied or
	6-0-0 oc p	ourlins.
BOT CHORD	Rigid ceili	ing directly applied or 6-0-0 oc
	bracing.	
REACTIONS	(size)	1=16-11-6, 5=16-11-6, 6=16-11-6,
		8=16-11-6, 9=16-11-6
	Max Horiz	1=161 (LC 11)
	Max Uplift	1=-21 (LC 10), 6=-183 (LC 15),
		9=-187 (LC 14)
	Max Grav	1=123 (LC 25), 5=86 (LC 21),
		6=520 (LC 25), 8=496 (LC 24),
		9=526 (LC 24)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	
TOP CHORD	1-2=-145/	253, 2-3=-108/190, 3-4=-109/170,
	1 5- 111/	010

- BOT CHORD 1-9=-130/131, 8-9=-130/131, 6-8=-130/131, 5-6=-130/131 3-8=-312/0, 2-9=-397/221, 4-6=-396/219
- WEBS NOTES

Scale = 1:50.8 Loading

TCLL (roof)

Snow (Pf)

TCDL

BCLL

BCDL

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) 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) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-6-0, Exterior(2R) 5-6-0 to 11-6-0, Interior (1) 11-6-0 to 13-7-3, Exterior(2E) 13-7-3 to 16-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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
- Unbalanced snow loads have been considered for this 5) desian.
- 6) Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc. 7)
- 8) 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 9)
- 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, with BCDL = 10.0psf. 10) Provide mechanical connection (by others) of truss to
- bearing plate capable of withstanding 21 lb uplift at joint 1, 187 Ib uplift at joint 9 and 183 Ib uplift at joint 6.
- 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



818 Soundside Road

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

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLD2	Valley	1	1	Job Reference (optional)	166814464

Scale = 1:43.7

Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

TOP CHORD

BOT CHORD

this design

WEBS

NOTES

1)

2)

REACTIONS (size)

TCDL

BCLL

BCDL

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:57

Page: 1



and C-C Exterior(2E) 0-0-5 to 3-3-10, Interior (1) 3-3-10 to 4-3-10, Exterior(2R) 4-3-10 to 10-3-10, Interior (1) 10-3-10 to 11-3-10, Exterior(2E) 11-3-10 to 14-6-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

Edenton, NC 27932



annin Martin G

July 12,2024

AAAAAAAAA

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLD3	Valley	1	1	Job Reference (optional)	166814465

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:57 ID:kUxM45s?bF21LX?KCRTFVAzRQqU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:39.3

Loading	(p	osf) S	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20	0.0 F	Plate Grip DOL	1.15		тс	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20	0.0 L	umber DOL	1.15		BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10	0.0 F	Rep Stress Incr	YES		WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	(0.0*	Code	IRC201	8/TPI2014	Matrix-MSH								
BCDL	10	0.0											Weight: 50 lb	FT = 20%
LUMBER				3)	Truss desig	ned for wind load	ls in the p	lane of the tru	uss					
TOP CHORD	2x4 SP No.2				only. For stu	ids exposed to w	vind (norm	al to the face	e),					
BOT CHORD	2x4 SP No.2				see Standard	d Industry Gable	End Deta	ils as applica	ble,					
OTHERS	2x4 SP No.3				or consult qu	alified building d	esigner a	s per ANSI/TI	PI 1.					
BRACING				4)	TCLL: ASCE	7-16; Pr=20.0 p	sf (roof Ll	: Lum DOL=	1.15					
TOP CHORD	Structural woo	d sheath	ning directly applied	d or	Plate DOL=1 DOL=1.15);	1.15); Pf=20.0 ps Is=1.0; Rough C	t (Lum DC at B; Fully	Exp.; Ce=0.9	e 9;					
BOT CHORD	Rigid ceiling di	irectly ar	polied or 10-0-0 oc		Cs=1.00; Ct=	=1.10	-	-						
201 0110112	bracing.			5)	Unbalanced	snow loads have	e been cor	nsidered for t	his					
REACTIONS	(size) 1=12	2-1-13. 5	5=12-1-13. 6=12-1-	13	design.									
	7=12	2-1-13, 8	8=12-1-13	6)	Gable requir	es continuous bo	ottom chor	d bearing.						
	Max Horiz 1=-1	115 (LC	12)	()	Gable studs	spaced at 4-0-0	0C.	Onefhetten						
	Max Uplift 1=-3	33 (LC 1)	0), 5=-5 (LC 11),	0)	This truss ha	is been designed	1 IOF a TU.	o psi bollom	do					
	6=-1	136 (LC	15), 8=-140 (LC 14	.) ov	* This trues h	au nonconcurren	d for a liv	other live load	lus. Opef					
	Max Grav 1=94	4 (LC 25	5), 5=73 (LC 24), 6=	=434 3)	on the bottor	n chord in all are	as where	a rectandle	opsi					
	(LC	21), 7=2	261 (LC 21), 8=434	(LC	3-06-00 tall b	ov 2-00-00 wide	will fit betv	veen the bott	om					
	20)				chord and ar	v other member	S.		••••					
FORCES	(lb) - Maximum	n Compre	ession/Maximum	10) Provide mec	hanical connecti	on (by oth	ers) of truss (to					
	Tension				bearing plate	e capable of with	standing 3	33 lb uplift at j	joint					
TOP CHORD	1-2=-117/101,	2-3=-21	6/116, 3-4=-216/11	6,	1, 5 lb uplift a	at joint 5, 140 lb	uplift at joi	int 8 and 136	lb					
	4-5=-91/63	0 00/7			uplift at joint	6.								
ROT CHORD	1-8=-32/79, 7-8	8=-32/74	1, 6-7=-32/74,	11) This truss is	designed in acco	ordance w	ith the 2018						ITTES.
WERS	5-6=-32/74 3 7- 174/0 2 9	9- 207/2	017 / 6- 207/017		International	Residential Cod	e sections	s R502.11.1 a	and				JUL OI	217
VVEDO	3-1114/0, 2-8	0397/2	217, 4-0397/217		R802.10.2 a	nd referenced sta	andard AN	ISI/TPI 1.				-	N' TH UF	NRO 11
NOTES				LC	DAD CASE(S)	Standard							~~	

- 1) Unbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=130mph (3-second gust) 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) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 9-2-2, Exterior(2E) 9-2-2 to 12-2-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Institute (average and truss component description (trust phonemore) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLD4	Valley	1	1	Job Reference (optional)	166814466

4-10-8

4-10-8

9

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

Scale = 1:33.4 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

REACTIONS (size)

TCDL

BCLL

BCDL

4-1-0

(psf)

20.0

20.0

10.0

0.0

10.0

2x4 SP No.2

2x4 SP No.2

2x4 SP No.3

9-9-0 oc purlins.

Max Horiz 1=-91 (LC 10)

(LC 20)

bracing.

Max Uplift

Max Grav

Tension

2-4=-650/275

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:57 ID:kUxM45s?bF21LX?KCRTFVAzRQqU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

> 4x5 = 2

9-4-14

4-6-6

10

Page: 1

GRIP

244/190

FT = 20%

9-9-8-12 10 Г 3 ۳ 4 3x5 🖌 2x4 🛛 3x5 💊 9-9-0 2-0-0 CSI DEFL l/defl L/d PLATES Spacing in (loc) Plate Grip DOL 1.15 TC 0.46 Vert(LL) n/a n/a 999 MT20 1 15 BC Lumber DOL 0.44 Vert(TL) n/a n/a 999 Rep Stress Incr YES WB 0.19 Horiz(TL) 0.01 4 n/a n/a Code IRC2018/TPI2014 Matrix-MSH Weight: 37 lb 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 Unbalanced snow loads have been considered for this 5) desian. Structural wood sheathing directly applied or Gable requires continuous bottom chord bearing. 6) 7) Gable studs spaced at 4-0-0 oc. Rigid ceiling directly applied or 6-0-0 oc 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 1=9-9-0, 3=9-9-0, 4=9-9-0 * This truss has been designed for a live load of 20.0psf 9) on the bottom chord in all areas where a rectangle 1=-52 (LC 21), 3=-52 (LC 20), 3-06-00 tall by 2-00-00 wide will fit between the bottom 4=-111 (LC 14) chord and any other members. 1=94 (LC 20), 3=94 (LC 21), 4=788 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint (lb) - Maximum Compression/Maximum 1, 52 lb uplift at joint 3 and 111 lb uplift at joint 4. 11) This truss is designed in accordance with the 2018 1-2=-117/382, 2-3=-117/382 International Residential Code sections R502.11.1 and 1-4=-249/175, 3-4=-249/175 R802.10.2 and referenced standard ANSI/TPI 1. LOAD CASE(S) Standard Unbalanced roof live loads have been considered for 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) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 6-9-5, Exterior(2E) 6-9-5 to 9-9-5 zone; cantilever left CITUTULE IN and right exposed ; end vertical left and right exposed;C-SEAL C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 036322

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.

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



Edenton, NC 27932

G THILLING THE July 12,2024 VALUE DANA

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH		
24060178-01	VLD5	Valley	1	1	Job Reference (optional)	166814467	

3-8-2

3-8-2

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

Scale = 1:29.3 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

REACTIONS (size)

TCDL

BCLL

BCDI

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:57 ID:CgVkHRtdMZAuzhaXm9 U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4x5 =

7-0-1

3-4-0



2 9 10 3-1-0 2-9-12 10 □ 3 4 2x4 II 3x5 🛷 3x5 💊 7-4-3 2-0-0 CSI DEFL l/defl L/d PLATES GRIP (psf) Spacing in (loc) 20.0 Plate Grip DOL 1.15 TC 0.27 Vert(LL) n/a n/a 999 MT20 244/190 20.0 1 15 BC 0.27 Lumber DOL Vert(TL) n/a n/a 999 10.0 Rep Stress Incr YES WB 0.09 Horiz(TL) 0.00 4 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MP FT = 20% 10.0 Weight: 27 lb 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 2x4 SP No.2 2x4 SP No.2 DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 2x4 SP No.3 Cs=1.00; Ct=1.10 Unbalanced snow loads have been considered for this 5) desian. Structural wood sheathing directly applied or Gable requires continuous bottom chord bearing. 6) 7-4-3 oc purlins. 7) Gable studs spaced at 4-0-0 oc. Rigid ceiling directly applied or 6-0-0 oc 8) This truss has been designed for a 10.0 psf bottom bracing. chord live load nonconcurrent with any other live loads. 1=7-4-3, 3=7-4-3, 4=7-4-3 9) * This truss has been designed for a live load of 20.0psf Max Horiz 1=68 (LC 11) on the bottom chord in all areas where a rectangle Max Uplift 1=-19 (LC 21), 3=-19 (LC 20), 3-06-00 tall by 2-00-00 wide will fit between the bottom 4=-76 (LC 14) chord and any other members. Max Grav 1=105 (LC 20), 3=105 (LC 21), 10) Provide mechanical connection (by others) of truss to 4=545 (LC 20) bearing plate capable of withstanding 19 lb uplift at joint (lb) - Maximum Compression/Maximum 1, 19 lb uplift at joint 3 and 76 lb uplift at joint 4. Tension 11) This truss is designed in accordance with the 2018 1-2=-92/236, 2-3=-92/236 International Residential Code sections R502.11.1 and 1-4=-184/155, 3-4=-184/155 R802.10.2 and referenced standard ANSI/TPI 1. 2-4=-432/204 LOAD CASE(S) Standard Unbalanced roof live loads have been considered for 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) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 4-4-8, Exterior(2E) 4-4-8 to 7-4-8 zone; cantilever left MI TUTINITY IN and right exposed ; end vertical left and right exposed;C-SEAL C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 36322

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.

WAAAAA WAAAAA G July 12,2024

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

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH		
24060178-01	VLD6	Valley	1	1	Job Reference (optional)	166814468	

2-5-11

2-5-11

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

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Thu Jul 11 13:21:57 ID:CgVkHRtdMZAuzhaXm9_U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-7-4

2-1-9



4-11-6







Scale =	1:26.2
Scale -	1.20.2

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	0.09 0.11 0.04	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: 18 lb	GRIP 244/190 FT = 20%	
LUMBER FOP CHORD 3OT CHORD DTHERS BRACING FOP CHORD 3OT CHORD REACTIONS FORCES FOP CHORD 3OT CHO	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 4-11-6 oc purlins. Rigid ceiling directly bracing. (size) 1=4-11-6, Max Horiz 1=-44 (LC Max Uplift 3=-7 (LC · Max Grav 1=89 (LC (LC 21) (lb) - Maximum Com Tension 1-2=-82/108, 2-3=-87 1-4=-87/91, 3-4=-87 2-4=-218/101 ed roof live loads have the context of the second CE 7-16; Vult=130mph mph; TCDL=6.0psf; BC Enclosed; MWFRS (and forces & MWFRS DL=1.60 plate grip DO igned for wind loads in studs exposed to wind ard Industry Gable Enc qualified building desig DCE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L =1.15); Pf=20.0 psf (L	athing directly applie applied or 6-0-0 oc 3=4-11-6, 4=4-11-6 : 10) 15), 4=-35 (LC 14) 20), 3=89 (LC 21), 4 pression/Maximum 2/108 /91 been considered for (3-second gust) CDL=6.0psf; h=25ft; velope) exterior zon lever left and right ght exposed;C-C for for reactions shown; L=1.60 the plane of the tru: (normal to the face) d Details as applicab gner as per ANSI/TP roof LL: Lum DOL=1 um DOL=1.15 Plate i: Fully Exp. Cee-0 9	5) 6) 7) 8) 9) 10 10 11 10 10 10 10 10 10 11 11 15 15 11	Unbalanced : design. Gable require Gable studs : This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an 0) Provide mect bearing plate and 35 lb upl) This truss is of International R802.10.2 ar DAD CASE(S)	snow loads have b 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 wil y other members. nanical connection capable of withsta ff at joint 4. designed in accord Residential Code s nd referenced stand Standard	eeen cor om chor or a 10.0 vith any for a liv s where I fit betw (by oth anding 7 dance w sections dard AN	sidered for the d bearing.) psf bottom other live loa e load of 20.0 rectangle veen the botto ers) of truss t l b uplift at joi ith the 2018 R502.11.1 a ISI/TPI 1.	nis ds.)psf om o int 3 nd				SEA 0363		
Cs=1.00; C	Ct=1.10										100	A G	ILP IN	

 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

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 Schult before the Structure Building former the Advance into (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



GILE

July 12,2024

Α. Winner A. GIL

Job	Truss	Truss Type	Qty	Ply	184 Serenity-Roof-B326 B CP TMB GRH	
24060178-01	VLD7	Valley	1	1	Job Reference (optional)	166814469

Scale = 1:25.1

Loading

TCLL (roof)

Snow (Pf)

LUMBER

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

NOTES

2)

3)

4)

5)

6)

TOP CHORD

BOT CHORD

this design

Cs=1.00; Ct=1.10

desian.

REACTIONS (size)

BRACING

TCDL

BCLL

BCDL

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

2x4 SP No 2

2x4 SP No.2

bracing.

Tension

1-3=-34/104

1-2=-146/63, 2-3=-146/63

Wind: ASCE 7-16; Vult=130mph (3-second gust)

Lumber DOL=1.60 plate grip DOL=1.60

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;

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

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;

Unbalanced snow loads have been considered for this

Gable requires continuous bottom chord bearing.

2-6-10 oc purlins.

(psf)

20.0

20.0

10.0

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Thu Jul 11 13:21:57 ID:CgVkHRtdMZAuzhaXm9 U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

 1-3-5
 2-2-8

 1-3-5
 0-11-3

3x5 =

2

2-6-10

2x4

DEFL

Vert(LL)

Vert(TL)

Horiz(TL)

3

L/d

999

l/defl

n/a

n/a 999

n/a n/a PLATES

Weight: 7 lb

MT20

GRIP

244/190

FT = 20%

2x4 💊

in

n/a

n/a

0.00

(loc)

3

12 10 ∟



Spacing Plate Grip DOL 1.15 тс 0.05 Lumber DOL 1.15 BC 0.05 10.0 Rep Stress Incr YES WB 0.00 0.0 IRC2018/TPI2014 Matrix-MP Code 7) Gable studs spaced at 4-0-0 oc. This truss has been designed for a 10.0 psf bottom 8) 9) Structural wood sheathing directly applied or chord and any other members. Rigid ceiling directly applied or 10-0-0 oc 1=2-6-10, 3=2-6-10 and 9 lb uplift at joint 3. Max Horiz 1=-21 (LC 12) Max Uplift 1=-9 (LC 14), 3=-9 (LC 15) Max Grav 1=115 (LC 20), 3=115 (LC 21) (lb) - Maximum Compression/Maximum

0-9-5

1-1-0

2-0-0

CSI

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

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

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1
- 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

1) Unbalanced roof live loads have been considered for



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

