

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 24060145-01 175 Serenity-Roof-B326 B CP TMB BNS GLH

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: I66625032 thru I66625073

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

North Carolina COA: C-0844



July 2,2024

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	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A01	Attic Supported Gable	1	1	l66625032 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 09:59:50 ID:HvYYHe4LpHmiz2DId9nw5TzRQov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

	-0-10-8	10-4-4	16-2-4	17-8-0		31-6-0	32-9-4			53-2-0	
	0-10-8	10-4-4	5-10-0	1-5-12		13-10-0	1-3-4			20-4-12	
				5X6=			4x8 👟				
				4×0≱ 10 11	12 138	38 1489 15 16	5x0= 5 17 18				
Т			4x6 ≠	9			19	20			
		10	8	80	79 87/8	74 75 76	5 77	20	1 4x6		
		612	7 10	4x6 I	3x6 II	3x6 II 3x	6 II 4x6 II		2223		
		687	1		5x6=	3х6 и			90	24 > 91	
8-0		4		×	3x6	Ш				25	
-	_{3х5 ш} 3						×				27
	1 2										92 ₂₈ 4x5
0											29 30
2-10											
TIT	73										
	3x5 II / 2	2 71 70 69	60 00 00	0421⊎ 519 3x6=	30 39	3x6=	3x6=	41 40	3x6=	/ 30 35	34 33 32 4x5 II
			1	8×10=			3x6=				
	H	10-4-4 10	0-6-0 15-10-0 16	-1-13	3	1-8-0	32-6-8	37-3-0	1	53-2-	0
		10-4-4 0-	.1-12 5-4-0 0-	3-13	15	5-5-12	0-10-8	4-8-8		15-11-	-0
Scale = 1:97	1.8			507							
Plate Offse	ts (X, Y): [10:	0-3-0,0-2-0], [18:0-3-0,	0-2-0], [31:0-2-10	,0-0-5], [51:0	-1-8,0-1-8],	[60:0-5-0,0-3-0],	[62:0-2-13,0-1-8	3]			
Loading		(psf) Spacing	2-0-0		csi		DEFL	in (le	oc) l/defl	L/d PLATES	GRIP
TCLL (roof)	1	20.0 Plate Grip	DOL 1.15		TC	0.58	Vert(LL)	n/a	- n/a	999 MT20	244/190
Snow (Pf) TCDL		10.0 Lumber D	IOL 1.15 ISINCI YES		WB	0.07	Horz(CT)	n/a 0.02	- n/a 31 n/a	999 n/a	
BCLL		0.0* Code	IRC20	18/TPI2014	Matrix-	MSH	- (-)				
BCDL		10.0								Weight:	459 lb FT = 20%
LUMBER					Max Uplift	31=-53 (LC 11),	32=-104 (LC 1	5), TO	P CHORD	2-73=-158/120,	1-2=0/24, 2-3=-93/82,
TOP CHOR	2x6 SP N 2x4 SP N	0.2 *Except* 10-18:2x4	4 SP No.2			33=-28 (LC 15), 35=-43 (LC 15),	34=-47 (LC 15 36=-44 (LC 15),).		3-4=-95/112, 4- 6-7=-125/242, 7	5=-109/167, 5-6=-119/212, 7-9=-208/343,
WEBS	2x4 SP N	o.3 *Except* 73-2,9-81	,9-60:2x6 SP			37=-43 (LC 15)	38=-45 (LC 15),		9-10=-1208/423	8, 10-11=-1883/667,
OTHERS	No.2, 81- 2x4 SP N	19:2x6 SP 2400F 2.0E 0.3 *Except* 42-19:2x6	6 SP No.2			40=-45 (LC 15), 42=-183 (LC 10	41=-121 (LC 2), 61=-98 (LC 1	2), 1),		13-14=-1883/66	67, 12-13=-1883/667, 67, 14-15=-1883/667,
SLIDER	Right 2x4	SP No.3 1-6-0				68=-123 (LC 14), 69=-10 (LC 1	4),		15-16=-1883/66	67, 16-17=-1883/667,
BRACING	P Structura	l wood sheathing direc	tly applied or			70=-43 (LC 14), 72=-92 (LC 14),	71=-35 (LC 14 73=-56 (LC 15),),		19-20=-138/352	2, 20-21=-167/350,
	6-0-0 oc	purlins, except end ve	rticals, and		May Crov	82=-53 (LC 11)	22-246 /1 C E	4)		21-22=-154/306	6, 22-24=-136/259,
	2-0-0 oc D Rigid ceil	purlins (3-7-1 max.): 10)-18. 10-0-0 oc		IVIAX GIAV	33=155 (LC 23)	, 32=240 (LC 34 34=173 (LC 54)	4),),		26-27=-116/168	8, 27-28=-126/145,
bor onor	bracing,	Except:				35=170 (LC 6),	36=180 (LC 40)), 6)		28-29=-139/127	7, 29-31=-178/131
	6-0-0 oc 58-60 56	bracing: -58 54-56 53-54 49-53	47-49 45-47			40=223 (LC 46)	, 38=234 (LC 46 , 41=160 (LC 54	6), 4),			
	44-45.	00,01 00,00 01,10 00	, 17 10, 10 17,			42=950 (LC 41)	, 46=185 (LC 7)),			
WEBS JOINTS	1 Row at 1 Brace a	midpt 19-42, 20-4 at.lt(s): 74	1, 21-40, 9-60			52=159 (LC 21)	, 55=162 (LC 7)),),			
	75, 76, 7	7, 78, 79,				57=153 (LC 21) 61=856 (LC 41)	, 59=185 (LC 7) 64=203 (LC 2)), 1)			
REACTION	80 (size)	31-53-2-0 32-53-2-() 33-53-2-0			66=280 (LC 21)	, 68=491 (LC 4	4),			
REACTION	10 (3126)	34=53-2-0, 35=53-2-0), 36=53-2-0,			69=141 (LC 38) 71=173 (LC 5)	, 70=190 (LC 38 72=210 (LC 52)	8),)			
		37=53-2-0, 38=53-2-0	0, 40=53-2-0, 0 46=53-2-0			73=188 (LC 22)	, 82=163 (LC 2	9)		""ATH	CARO
		48=53-2-0, 50=53-2-0), 52=53-2-0, F	ORCES	(lb) - Max Tension	kimum Compress	ion/Maximum			A OF	ESSIN
		55=53-2-0, 57=53-2-0 61=53-2-0 64=53-2-0), 59=53-2-0,) 66=53-2-0		1013011				4	int	Jul 1
		68=53-2-0, 69=53-2-0	0, 70=53-2-0,								CEAL E
		71=53-2-0, 72=53-2-0 82=53-2-0), 73=53-2-0,						=		SEAL E
	Max Horiz	73=-190 (LC 12)								. 0	36322 : 5
										5 N. 2	A 1. 3
										TO SN	GINEENA
										11, C	GILBEIT
										1111	
											1 1 0 000 1

NGINEERING B

July 2,2024

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

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Job		Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS G	BLH
24060145-0)1	A01	Attic Supported Gable	1	1	Job Reference (optional)	166625032
Carter Compone	ents (Sanford, N	C), Sanford, NC - 27332,	Run: 8.73 S Jun 13 ID:HvYYHe4LpHmiz	2024 Print: 8 2Dld9nw5TzF	.730 S Jun 1 RQov-RfC?F	3 2024 MiTek Industries, Inc. Tue Jul 02 09:59:50 SB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f	Page: 2
BOT CHORD	72-73=-96/ 70-71=-96/ 68-69=-96/ 68-69=-92/ 59-61=-90/ 50-52=-90/ 46-48=-90/ 41-42=-96/ 38-40=-96/ 38-40=-96/ 36-37=-96/ 32-33=-96/ 63-65=-5/11 56-58=-9/11 44-45=-9/11 14-74=-151	169, 71-72=-96/169, 169, 60-70=-96/169, 169, 66-68=-92/160, 160, 61-64=-92/160, 161, 57-59=-90/161, 161, 52-55=-90/161, 161, 42-46=-90/161, 170, 40-41=-96/170, 170, 37-38=-96/170, 170, 35-36=-96/170, 170, 33-34=-96/170, 170, 31-32=-96/170, 65-67=-5/4, 60-63=-5/14, 58-60=-9/10, 0, 54-56=-9/10, 53-54=-9/10, 0, 47-49=-9/10, 45-47=-9/10, 0,	 13) Ceiling dead load (5.0 psf) on mer 78-79, 74-78, 74-75, 75-76, 76-77 load (5.0psf) on member(s).42-44 9-60 14) One H2.5A Simpson Strong-Tie of recommended to connect truss to UPLIFT at jt(s) 73, 42, 41, 40, 38, 69, 70, 71, 72, 68, 31, and 61. Thi uplift only and does not consider li 15) This truss is designed in accordar International Residential Code sec R802.10.2 and referenced standa 14) Graphical purlin representation do or the orientation of the purlin alor bottom chord. 17) Attic room checked for L/360 deflet LOAD CASE(S) Standard 	nber(s). 9-8 , 19-77; W , 19-44, 67- onnectors bearing wa 37, 36, 35, s connectic ateral force: ice with the ctions R502 rd ANSI/TP es not depi ng the top a ection.	30, 79-80, all dead 68, 7-67, lls due to 34, 33, 32 n is for s. 2018 .11.1 and I 1. ct the size nd/or		
	49-50=-81/ 17-77=-476 42-44=-910 20-41=-96/ 22-38=-194 25-36=-133 27-34=-128 29-32=-174 54-55=-81/ 11-80=-584 65-66=-146 4-71=-129/ 78-79=-443 76-77=-443 67-68=-451 9-60=-783/ 18-77=-496), 16-76123/41, 47-4875/0 /142, 45-4698/0, /208, 19-44893/218, 157, 21-40182/76, /81, 24-37181/77, /77, 26-35126/77, /81, 28-33114/99, /171, 13-78160/51, 0, 12-7982/26, 56-5776/0, /192, 58-5993/0, 63-6410: /0, 6-6996/46, 5-70144/75 98, 3-72-127/133, 383, 79-80443/1851, /1851, 74-78443/1851, /1851, 75-76443/1851, /1851, 19-77140/793, /147, 7-67434/158, 189, 10-80-505/1431, /1470, 60-61814/162	, 1/0, ,				
NOTES		,					
1) Unbalance	ed roof live loa	ads have been considered for					
2) Wind: ASC Vasd=103	ı. CE 7-16; Vult= mph; TCDL=6	=130mph (3-second gust) 6.0psf; BCDL=6.0psf; h=25ft; 0	Cat.				

2) Wind: ASCE 7-16; Vult=130mpn (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) -0-7-14 to 4-6-8, Exterior(2N) 4-6-8 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 36-6-8, Exterior(2N) 36-6-8 to 47-10-3, Corner(3E) 47-10-3 to 53-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
 Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2-0-0 oc.
- 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.

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A02	Attic	1	2	I66625033 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 09:59:52 ID:OFJFx3IDTxFbWWzrBXohbzzRCTM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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818 Soundside Road Edenton, NC 27932

					20-1-7	7		32-9-4		5 1 5 1		
	-0-10-8 6	<u>8-1-12</u>	+ 10-4-4	<u>16-5-4</u> 6-1-0		4-5-9	29-0-9	31-6-0	<u>39-5-4</u> 6-8-0	- 1 6	6-3-15	53-2-0 6-10-1
	0-10-8	-1-12	4-2-0	0-1-0	1-2-12 5x6=5-7	4-0-9	4-0-9	2-3-7 1-3-4 4x8s	0-0-0	U	-10-12	0-10-1
					4x8 ≠ 3	3x5=	3x8=	3x5= 5x6=	•			
Ŧ					7 A - 18	8 61	962	10 11	2			
				4x6 =		2-28						
			6^{12} $4x^{5}$	BIL	51 4x6 II	53	50 54 3x6 u 4x6 u	52 4x6 u	A R	8x10 ≈		
			4x5 = 60							18463		
0-		3	59		49	4					54	
11-8		58 🖈			3x6=	9-1-					4)	⁽⁵ ≈ 15
	5x6=										\rightarrow	65
٩		_										
2-10									/			
TIT		4		<u>47 42 40</u> 43 41	358 37 35 39 36	33 6832 ⊊ : 34 6631 ^O	<u>30 29 27∣2</u> 28 67 2	6 <u>24 23 </u>	19) 18	1	<u> </u>
I	MT18HS 3x10) 6	x10= 6x10)= 3x5=	4x6= 3x5=	12x16 u	4x8= 12x	16= 10x1	2= 4x	6= 6x8=		5x8=
				4×8-3-8 4×8	= 4x8= 4	4x5= 4x5=	3x5=	5x6=	4			
			11- ⁻ 10-6	10-12 15-1 -0 15-1	⁰ 4x84 0-0 18-10-8	22-9-4 2	5x8 = 28-2	⁴⁻⁴ 5x10 ⁶ ≤ ⁻⁹⁻) 31-1-12	4	0 5 4		
	⊢ <u>6</u>	<u>8-1-12</u> 8-1-12	4-2-8 0-1-1	14-8-4	17-5-12 20-3	3-4 24-2- 	0 26-11-8 2	9-9-0 32-6-8	37-3-0	2-2-4 6	<u>6-3-15</u> -10-12	<u>− 53-2-0</u> 6-10-1
Scale = 1:91	.4		1-4	4-12 1-4-12	-12 1-4-12 -12 1-4-12	2-6-0 1	-4-12 1-2-8	-4 1-4-120-2-1 1-4-12	2.0.2		10 12	0.01
Plate Offset	[2: s (X Y)· [38	0-2-11,0-2-8	8], [4:0-2-8,0-2-8 8] [45:0-2-12 Ec	3], [6:0-1-12,0-	2-0], [7:0-3-0, 2 0-2-0] [53:0	0-2-0], [11:0-3 -5-6 0-6-0]	8-0,0-2-0], [13	0-4-0,0-4-8], [16	6:Edge,0-1-7]	, [18:0-2-12,0	-2-8], [20:0-4-0	0,0-3-0], [30:0-3-4,0-3-0],
],[10:0 2 12,20	.90], [02:0 1 1	2,0 2 0], [00.0			1				
Loading		(psf) 20.0	Plate Grip DC	3-2-0 1 1 15		CSI TC	0.57	DEFL Vert(LL)	in (loc)) I/defl L/ 3 ⊳999 24	d PLATES	GRIP 244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.91	Vert(CT)	-0.50 33-35	>780 18	0 MT18HS	244/190
TCDL BCLI		10.0 0.0*	Rep Stress Ir	NO IRC20	18/TPI2014	WB Matrix-MS	0.92 SH	Horz(CT) Attic	0.10 16	6 n/a n/∂ 3 >999 36	a 0	
BCDL		10.0	0000		10,1112011				0.110 22 00		Weight: 10	049 lb FT = 20%
LUMBER				E	BOT CHORD	47-48=-167/	/324, 46-47=-3	315/5345,	1) 2-	ply truss to be	connected to	gether with 10d
TOP CHOR	D 2x6 SP	No.2 *Exce	pt* 7-11:2x4 SP	No.2		43-46=-366/	/5397, 41-43=	0/5780, 760_21_24-0/90	(0 074 Tc	.131"x3") nails	s as follows:	
	No.2, 19	9-16,39-25:2	2x6 SP 2400F 2	2x4 SP .0E		28-31=0/890	04, 21-28=0/7	189, 20-21=-212	22/0, sta	aggered at 0-9	9-0 oc, 2x4 - 1	row at 0-9-0 oc.
WEBS	2x4 SP SP No 2	No.3 *Exce	pt* 4-46,47-2,22 3 6-38 53-12:2x	-18:2x4 6 SP No 2		18-20=-143 16-17=0/68	5/292, 17-18= 98, 44-45=-34	0/6898, 2/1555,	Bo	ottom chords o aggered at 0-9	connected as f 9-0 oc, 2x4 - 1	follows: 2x6 - 2 rows row at 0-9-0 oc.
WEDGE	Right: 2	x4 SP No.3	-,,			42-44=-342/	/1555, 40-42=	0/1277,	W	eb connected	as follows: 2x	4 - 1 row at 0-9-0 oc, 2x6 -
BRACING TOP CHORI	D 2-0-0 or	c purlins (5-	1-14 max.), exc	ept end		35-37=-433/	/297, 33-35=-	3/297, 3428/0,	2) AI	l loads are co	nsidered equa	lly applied to all plies,
	verticals	S		0.0.0		32-33=-3428 27-29=-2992	8/0, 29-32=-34 2/0_26-27=-54	428/0, 43/1445	ex Cu	cept if noted a	as front (F) or	back (B) face in the LOAD
BOT CHOR	D Rigid ce	ed from she eiling directly	eted: Spacing > y applied or 6-0-	2-8-0). 0 oc		24-26=-543/	/1445, 23-24=	0/5222,	pr	ovided to distr	ibute only loa	ds noted as (F) or (B),
	bracing.			N	WEBS	22-23=0/522 3-47=-2080/	22 /0, 3-45=0/16	50, 45-46=-199/ ⁻	ur 136, 3) Ui	niess otherwisenbalanced roo	e indicated. f live loads ha	ve been considered for
	11, 2, 2	4, 42, 27,				4-45=-712/1	09, 20-22=-12	214/553,	th	is design.		
	38, 30, 51, 52,	35, 49, 50, 53, 54				12-22=0/233	/49, 15-18=-64	3/849, 49/360,				
REACTION	S (size)	16= Mec	hanical, 20=0-3	·8,		15-17=-51/2 50-51=-4383	263, 6-51=-503 3/1366, 50-54	35/0, =-3871/1366.				
	Max Hori	48=0-5-8 z 48=-296	(LC 12)			52-54=-434	4/0, 12-52=-5	337/0, 2-47=0/5	789, 5/0			
	Max Uplif	ft 20=-253	(LC 15)	40 /1 0		21-22=0/325 43-44=-392/	51, 43-45=0/1 /0, 21-24=-280	131, 21-23=-535 04/0,	5/0,		min	CADIN
	Max Grav	v 16=3920 46), 48=5	(LC 48), 20=18 5236 (LC 38)	40 (LC		42-43=-348/	/526, 24-25=0 /302 25-26= 1	/2806, 396/0		10	"'ATH	UARO
FORCES	(lb) - Ma	aximum Cor	npression/Maxir	num		40-41=-338/	/0, 25-27=-184	43/0, 38-41=0/12	260,	13	O'iFE	SSIGN
TOP CHOR	I ension D 1-2=0/3	ı 4, 2-3=-628	3/0, 3-4=-7455/),		27-28=0/148 36-37=-305/	83, 36-38=0/2 /0, 28-30=-550	626, 28-29=-24)/0, 35-36=-193	1/13, 6/0,	a	:0:	1 22
	4-6=-72 8-947	08/0, 6-7=-2	2528/121, 7-8=-: 04742/604	2394/61,		30-31=-109/	/415, 34-35=0	/1839,	- /	111	; c	FAL
	10-11=-	2205/74, 11	I-12=-2632/87,			6-49=0/2270	0, 31-32=-25 0, 4-49=-331/0), 9-50=0/296,	04,	3	03	6322
	12-14=- 15-16=-	7332/0, 14- 7925/0. 2-4	15=-7422/0, 8=-5343/0			7-51=-154/1	021, 11-52=-0	66/1758, 03/783			\sim	
		-,				9-53=-1128/	/184, 9-54=-1	174/191,		1	A. E.	Rix S
						10-54=-128/ 45-47=-580/	/814, 10-52=-2 /1381, 18-22=	2220/495, 0/7222		11	NA NO	INEFER
											Min A	GILB
				1	NOTES						111	
												July ∠,∠U∠4

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 bracing is always required for stability and to prevent oblapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP11 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A02	Attic	1	2	I66625033 Job Reference (optional)

Run 8 73 S. Jun 13 2024 Print 8 730 S. Jun 13 2024 MiTek Industries. Inc. Tue Jul 02 09:59:52

ID:OFJFx3IDTxFbWWzrBXohbzzRCTM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?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 and C-C Exterior(2E) -0-7-14 to 4-7-15, Interior (1) 4-7-15 to 10-1-12, Exterior(2R) 10-1-12 to 39-0-4, Interior (1) 39-0-4 to 47-10-3, Exterior(2E) 47-10-3 to 53-2-0 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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.
- 200.0lb AC unit load placed on the bottom chord, 24-6-8 from left end, supported at two points, 5-0-0 apart.
- 9) Provide adequate drainage to prevent water ponding.
- 10) All plates are MT20 plates unless otherwise indicated.
- 11) All plates are 2x4 MT20 unless otherwise indicated.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * 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.
- 14) Ceiling dead load (5.0 psf) on member(s). 6-51, 51-53, 50-53, 50-54, 52-54, 12-52, 4-49; Wall dead load (5.0psf) on member(s).4-45, 12-22, 38-49, 6-49
- 15) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 44-45, 42-44, 40-42, 38-40, 37-38, 35-37, 33-35, 32-33, 30-32, 29-30, 27-29, 26-27, 24-26, 23-24, 22-23
- 16) Refer to girder(s) for truss to truss connections.
- 17) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20. 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) 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 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	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A03	Attic	3	1	I66625034 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 09:59:53 ID:OFJFx3IDTxFbWWzrBXohbzzRCTM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

	0 10 8 -				20-1	-7			32-9-	4							
-)-10-8 6-	1-12 1-12	<u>10-4-4</u> 4-2-8	<u>16-5-4</u> 6-1-0	17-8-0	4-	- <u>7-0</u> 5-9	<u>29-0-9</u> 4-5-9	2-5-7 1-3-4	4 <u>39</u> 4 6·	- <u>5-4</u> -8-0	+	46- 6-1	<u>3-15</u> 0-12		<u>53-2-0</u> 6-10-1	
					2-5- 5x6=	7			4x	8.							
					4x8 ≠	3x5=	3x8	=	3x5= 10x12	•							
Т				4.0	6	8 ∞ ∞	61 96			12							
			10 44	4x6≠	51	5	3 50	54	52								
			6 4	°= 11	4x6 II		3x6	и 4x6 и	02		\searrow	8x10 _≈ . 1&⊿					
		4	x5 = 60									A 63	64				
1-8-0		58	09		3x6=	1-14						/ `	\sim		4x5👟		
÷	6x8 ≠					6					$\langle $				15	5	
	12																
10-0							 • • • • • •										_ 16ọ
	48	1	45	44 42 40	38 37 35	33 6		29 27 2	6 24 23	<u> </u>	Ð				8		Pa și
	4x6=	47 5x	7 46 10= 6x10	43 4 ² 0= 3x5=	1 39 36 4x6= 3x	34 60 5= 12	331 : 2x16 u	28 67 2 4x8= 12x	5 21 <u>27</u> 16= 12	0 (16 -	19 4x6=	18			17		5x8=
				4x8=3-8 ^{4x}	:8= 5x8=	4x5=	4x5=	3x5=	5x6=	(10=		8x10=					
			11- 10-6	10-12 -0 15	16 ₅ 1 ₈ 0 -10-0 18-10-8	3 22-9-	5x8= 4 25-6-	28-4 12 28-2-0	4-4 5x1 82 - 0 31-1-12	9-4							
	6-	1-12	4-2-8 0 1		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-3-4	24 - 2 - 0 2	26-11-8 2 1 4 120 2	9-9-0 32-6-8	37-3-	0 39-	5-4 	46- 6-1	3-15 0-12		53-2-0 6-10-1	
Scale = 1:91.4	4	2	1-	4-12 1-4-12	1-12 1-4-12 1-4-12	2-6-0) 1-4-12	12 1-2-8	-4 1-4-120-2 1-4-12	2		- •	01	0 12		0 10 1	
Plate Offsets	[4:0 (X, Y): [45:	-2-8,0-2-8], 0-2-12,Edg	, [6:0-1-12,0-2-0 je], [47:0-4-12,0	0], [7:0-3-0,0 0-2-12], [53:0	-2-0],"[11:0-9-8 -5-6,0-6-0]	3,0-1-4], [13:0-4-0,0	0-4-8], [16:	:Edģē,0-1-3],	[18:0-4-4,	0-3-12],	[20:0-7-	0,Edg	e], [30:0-	3-4,0-3-0)], [38:0-2-8,	0-1-8],
Loading		(psf)	Spacing	2-0-0)	CSI			DEFL	in	(loc)	l/defl	L/d	PLATE	s	GRIP	
TCLL (roof) Snow (Pf)		20.0 20.0	Plate Grip DO	OL 1.15		TC BC		0.62 0.85	Vert(LL) Vert(CT)	-0.30 -0.63	32-33 32-33	>999 >623	240 180	MT20		244/190	
TCDL		10.0	Rep Stress In	ncr YES		WB		0.86	Horz(CT)	0.12	16	n/a	n/a				
BCLL BCDL		0.0* 10.0	Code	IRC2	2018/1912014	Mat	rix-MSH		Attic	-0.19	22-38	>999	360	Weight:	526 lb	FT = 20%	
					BOT CHORE	47-48	=-102/23§), 46-47=-2	216/3276,		1) Unba	alanced	roof li	ve loads	have bee	en considere	d for
TOP CHORE	2x6 SP N	lo.2 *Excep	ot* 7-11:2x4 SP	No.2		43-46	=-250/330 0/2881)4, 41-43= 34-36=0/4	0/3573, 947_31-34-0/	5767	this of Winc	design.	7-16	Vult-13)mnh (3-	second quist	`
BOTCHORE	19-16,39	-25:2x6 SP	2400F 2.0E, 3	0-22:2x4		28-31	=0/5737, 2	21-28=0/4	588, 20-21=-1	628/0,	Vasc	d=103m	ph; TC	DL=6.0p	sf; BCDI	_=6.0psf; h=	, 25ft; Cat.
WEBS	SP No.1 2x4 SP N	lo.3 *Excep	ot*			18-20 44-45	=-1215/0, =-115/10€	6, 42-44=	-115/1066,	//4348,	and (¢р B; En C-C Ext	erior(2	2; MVFR 2E) -0-7-1	S (envel 4 to 4-7-	15, Interior	(1)
	4-46,47-2	2,21-22,43-4 41-38 28-2	45,21-24,43-42 27 36-38 28-30	2,25-24,41-		40-42 35-37	=0/862, 38 =-267/211	8-40=0/86: .33-35=-2	2, 37-38=-267 2258/0.	/211,	4-7-1 Interi	15 to 10 ior (1) 3	-1-12, 9-0-4	Exterior(to 47-10-	2R) 10-1 3. Exterio	-12 to 39-0- or(2E) 47-10	4, ⊩3 to
	30,34-35	:2x4 SP No	0.2,			32-33	=-2258/0,	29-32=-22	258/0,		53-2-	-0 zone	; end v	ertical le	ft expose	ed;C-Ć for m	embers
	12-20,6-5 22-18:2x4	3,48-2,6-38 4 SP No.1	8,53-12:2x6 SF	⁵ No.2,		24-26	=-398/929	20-27=-38 9, 23-24=0	/3535,		DOL	=1.60 p	late gr	ip DOL=	1.60	SHOWH, LUII	Jei
WEDGE	Right: 2x	4 SP No.3				22-23	=0/3535			3	3) TCLI Plate	L: ASCE DOL=1	E 7-16 1.15);	; Pr=20.0 Pf=20.0 p	psf (root osf (Lum	f LL: Lum D(DOL=1.15 F	OL=1.15 Plate
TOP CHORE	O Structura	al wood she	athing directly	applied or	WEBS	3-47=	·1342/0, 3	8-45=0/109	93, 45-46=-11	6/92,	DOL	=1.15);	ls=1.0	; Rough	Cat B; Fi	ully Exp.; Ce	=0.9;
	2-9-5 oc 2-0-0 oc	purlins, exe purlins (3-0	cept end vertic)-2 max.): 7-11.	als, and		12-22	=0/1482,	14-22=-000	4/439,	4	4) Unba	alanced	snow	loads ha	ve been	considered f	or this
BOT CHORE	D Rigid ceil bracing	ling directly	applied or 3-6	-8 oc		14-18 15-17	=-435/3, 1 =-32/165,	15-18=-410 6-51=-318	0/229, 35/0,	ţ	desią 5) This	gn. truss ha	as bee	n design	ed for gre	eater of min	roof live
WEBS	1 Row at	midpt	14-22, 6-53, 1	2-54		50-51 52-54	=-2776/84 =-2748/0	18, 50-54= 12-52=-33	-2451/848, 370/0, 2-47=0	/3571	load	of 12.0	psf or	1.00 time	es flat roo	of load of 20	.0 psf on
JOINTS	1 Brace a 42, 27, 3	at Jt(s): 24, 8, 30, 35,				21-22	=0/2157,	43-45=0/7	30, 21-23=-34	8/0,	01011	nangon			11111	111.	
REACTIONS	49, 50, 5	3, 54 16- Mech	anical 20-0 2	-8		43-44 42-43	=-252/0, 2 =-232/322	21-24=-187 2, 24-25=0	/1895,					""TH	A CA	ROUN	
ALACTIONS	(3120)	48=0-5-8	ariiodi, ∠0=0-3	σ,		41-42 40-41	=-216/212 =-220/0, 2	2, 25-26=-2 25-27=-122	259/0, 20/0, 38-41=0	/789,			J'and	01.2	ESS	6.40	11.
	Max Horiz Max Uplift	48=-188 (20=-129 ((LC 12) (LC 15)			27-28	=0/1011,	36-38=0/1	709, 28-29=-1	56/13,		4	5	1 Alexandre	7	12	2
	Max Grav	16=2471	(LC 48), 20=12	204 (LC		30-37	=-87/262,	34-35=0/1	1223, 33-34=-	340/0,		111			SEAL		
FORCES	(lb) - Max	40), 48=3 kimum Com	סבפ (בכ סס) pression/Maxii	mum		31-32 4-49=	=-160/7, 3 -204/0, 9-	38-49=0/13 50=0/188.	380, 6-49=0/1 7-51=-97/645	447, 5,		Ξ		C	SEAL	-	Ξ
	Tension 1-2=0/24	2-3=-3942	2/0 3-4=-4714/	0		11-52	=-35/1110), 8-51=-13	341/311,	11/110		E.			13032		111
	4-6=-457	2/0, 6-7=-1	603/66, 7-8=-1	519/26,		10-54	=-81/513,	10-52=-14	401/313,	+ 1/ I IO,				·		Rick	111
	8-9=-303 10-11=-1	4/373, 9-10 405/37, 11-	-3005/372, -12=-1673/44,			45-47	=-301/932	2, 18-22=0	/4894				15	A/C	GINE	FER	1 Contraction
	12-14=-4 15-16=-4	646/0, 14-1 995/0. 2-48	15=-4676/0, 3=-3387/0		NOTES									1111	4. G	IL brin	
		, _ 10												11	11111	v 2 2024	
															Jul	y ∠,∠∪∠4	

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



Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A03	Attic	3	1	I66625034 Job Reference (optional)

- 6) 200 0lb AC unit load placed on the bottom chord 24-6-8 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding. 7) All plates are 2x4 MT20 unless otherwise indicated. 8)
- 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.
- 11) Ceiling dead load (5.0 psf) on member(s). 6-51, 51-53, 50-53, 50-54, 52-54, 12-52, 4-49; Wall dead load (5.0psf) on member(s).4-45, 12-22, 38-49, 6-49
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 44-45, 42-44, 40-42, 38-40, 37-38, 35-37, 33-35, 32-33, 30-32, 29-30, 27-29, 26-27, 24-26, 23-24, 22-23
- 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) 20. 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. Tue Jul 02 09:59:53 ID:OFJFx3IDTxFbWWzrBXohbzzRCTM-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 PCB Building Component Science Michael Component Advancement description (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A03T	Attic	3	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, D:OE JEV2IDTYES/WW/278XobrzzP						Print: 8.730 S	Jun 13 202	4 MiTek	Industries	Inc. Tu	ie Jul 02 09:59:54		Page: 1		
	2-3-12			17-8-0		ID:OFJFx3ID1xFbV	/wzrBX	32-9-4	-RfC?PsB7	OHq3NSg	3PqnL8w3	ulixbG	KWrCDoi7J4zJC?	't	
-	-0-10-8 - 0-10-8	<u>7-9-12</u> 5-6-0	2 <u>13-3-12</u>) 5-6-0	<u>16-3-4</u> 2-11-8 2-5	<u>1-7 24</u> 5-7 4-	- <u>7-0 29-0-9</u> 5-9 4-5-9	31- 	6-0 5-7	<u>39-5-4</u> 6-8-0		<u>46-3</u> 6-10	<u>8-15</u>)-12	<u>53-2-</u> 6-10-	0 1	
	2-3-12			1-4-12 5x6=				1-3-4 4x8							
				5x10 ≠	3x5=	3x8=	3x5=	10x12 _≈							
Т			,12 s	×10 - 6											
			61 °	5 47	4	8 51 49		50	\leq	8x10					
			57 ⁵⁸	4x6 ı		4x6 I				18	* 161				
ę	5)	<6 =	56 4			4				\mathbb{R}	62				
11-8	5x8 ≠	55		8 // 18		9-1-1						\leq	4x5		
	3 1 2	\langle							1				63		
0														<	0 0
2-10	46	45 °	43 41					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					4	160	
	4x6=	6x8=	4x5= 6x10=	40 37	34 64	4 32 29 65 2	2725	21 220 d	1	9 18		1	7	ن ديرو -	66
	Зх	5 II	:	3x5 6x10 = 3 2x4 =	2x4 II	5= 3x6 II 5 2x4 II 2x4 II 2	5x8= 2x4 u	2x4 II	4x	:6= 8x10)=	2	x4 <i>1</i>	0.0=	
				3x5=	4x8=12	2x16 u 4x5=	4x6=	2x4 II							
				<mark>4</mark> 95 2 17-9-12	-8	4x5= 3x5= 29	5x8: 9-0-0	= _{5×1} 32-9-4							
	, 2-5-8	7-9-1	2 13-2-0	16-5-0 16-3-4	22-0-0 20-7-4 23) 25-6-12 28-4 -4-12 26-11-8	-4 31- 29-9-(1/12/= 032-6-8 3	37-3-0	39-5-4	45-3-	4	53-2-0		
Scalo - 1:09 1	2-5-8	5-4-4	4 5-4-4	3-1-4	-4-12 1-	4-12 1-4-120	-7-12	1-4-12 4	4-5-12	2-2-4	5-10-	0	7-10-12	2	
Scale = 1.90.1	[5:0-	5-0,0-4-8],	, [6:0-3-9,0-3-0], [7:0-	3-0,0-2-0], [1] 20-9	-4-12 -4,0-1-4],	[13:0-4-0,0-4-8],	[969E9	i-12 lge,0=7-7];?[:	22:0-3-8,1	Edge], [2	24:0-2-8,	0-3-0],	[42:0-3-12,0-3-	8], [44:0-5-8	,Edge],
Plate Offsets ((X, Y): [48:0	-5-6,0-6-0]												
Loading		(psf)	Spacing	2-0-0		SI	0.57	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
Snow (Pf)		20.0 20.0	Lumber DOL	1.15	E	iC	0.57	Vert(LL) Vert(CT)	-0.29 -0.61	32-34 32-34	>999 >636	240 180	MT20	244/190	
TCDL		10.0	Rep Stress Incr	YES		VB	0.72	Horz(CT)	0.17	16	n/a	n/a			
BCDL		10.0	Code	11102010/11120	14			Auto	-0.19	22-39	>9999	300	Weight: 519 lb	FT = 20%	, D
LUMBER				BOT CHC	RD 45-	46=-17/49, 44-45	=-4/23	, 3-44=-144	15/0,	2) Wir	nd: ASCE	7-16;	Vult=130mph (3-second gu	st)
TOP CHORD	2x6 SP No	0.2 *Excep	ot* 7-11:2x4 SP No.2		43- 41-	44=-62/2222, 42- 42=-125/55_5-42	43=0/3 =-490/	8505, 103		Vas II· F	sd=103m =xp B [.] Fr	ph; TC	DL=6.0psf; BC	DL=6.0psf; h elope) exteri	n=25ft; Cat. ior zone
BOT CHORD	No.3, 41-2	25:2x6 SP	2400F 2.0E,		40-	41=-31/227, 37-4	0=0/38	316, 34-37=	0/4678,	and	C-C Ext	terior(2	2E) -0-7-14 to 4-	-7-15, Interio	r (1)
WEBS	39-24,24-2 2x4 SP No	22:2x4 SP 0.3 *Excep	NO.2 ot*		32- 21-	34=0/5471, 29-32 27=0/2014, 20-21	=-174	76, 27-29=0 0/0,)/4300,	4-7 Inte	erior (1) 3	9-0-4	to 47-10-3, Exte	erior(2E) 47-	0-4, 10-3 to
	40-42,6-40),44-2,40-3 28-27 27-2	38,37-36,36-34,34-33 24 24-21 21-22 [.] 2x4 S	3,33- P	18- 16-	20=-1517/0, 17-1 17=-19/3518. 38-	8=0/35 39=-20	533,)/42.		53- and	2-0 zone forces &	; end \ & MWF	vertical left expo	sed;C-C for s shown: Lu	members mber
	No.2, 12-2	20,6-48,46	-2,48-12:2x6 SP No.:	2,	36-	38=-754/0, 35-36	=-2696	S/0,		DO a) TO	L=1.60 p	late gr	rip DOL=1.60		
WEDGE	22-18:2x4 Right: 2x4	SP No.1 SP No.3			30-	31=-2917/0, 28-3	0=-291	17/0, 17/0,		3) TCI Pla	te DOL=	= 7-16 1.15);	Pf=20.0 psf (IC Pf=20.0 psf (Lu	m DOL=1.15	DOL=1.15 Flate
	Structural	wood abo	othing directly applie	dor	26- 22-	28=-761/587, 23-: 23=0/2751	26=-76	61/2751,		DO Cs⊧	L=1.15); =1.00; Ct	ls=1.0 =1.10); Rough Cat B;	Fully Exp.; C	Ce=0.9;
TOP CHORD	3-2-14 oc	purlins, e	except end verticals, a	and WEBS	3-4	3=0/1410, 4-43=-	443/12	2, 4-42=-102	2/291,	4) Uni	balanced	snow	loads have bee	n considered	d for this
BOT CHORD	2-0-0 oc p Rigid ceili	ourlins (2-1	1-7 max.): 7-11. applied or 2-2-0 oc		39-	42=0/3042, 0-42= 40=-498/286, 6-3	9=-470)/433,		5) Thi	s truss h	as bee	n designed for	greater of mi	n roof live
1 Pow at mida	bracing.	Except:			20- 14-	22=-1073/193, 12 22=-526/364, 14-	2-22=-1 18=-35	1/959, 53/35,		loa ove	d of 12.0 erhangs r	psf or on-co	1.00 times flat i ncurrent with otl	roof load of 2 her live loads	20.0 psf on s.
WEBS	1 Row at i	midpt	6-39, 14-22, 12-49		6-4	7=-1844/0, 47-51	=-1511	/1254,		6) 200).0lb ĂC	unit loa	ad placed on the	e bottom cho	ord, 24-6-8
JOINTS	1 Brace at 33, 28, 24	t Jt(s): 36, , 48, 49,			12-	50=-2550/0, 2-44	=0/260)3, 15-17=0	/227,	7) Pro	vide ade	quate	drainage to pre	vent water p	onding.
DEACTIONS	51	40 Maak			15- 38-	18=-467/190, 44- 40=-895/0, 36-37	46=-10 =-1269)8/200, 9/0, 34-36=0	0/964,				"TH CA	ARO	1.
REACTIONS	(size)	46=0-5-8	iaπical, ∠υ=υ-3-8,		33- 28-	34=-347/100, 32- 29=0/1211 27-28	33=-23 =-1:30	30/71, 5/0, 24-27–	0/1506		/	S.	OF STER	221	in
	Max Horiz Max Uplift	46=-188 (20=-6 (LC	(LC 12) (15)		21-	24=-2051/0, 21-2	2=0/21	61, 21-23=	-344/0,			2 Q			
	Max Grav	16=2007	(LC 48), 20=1552 (L0	0	26- 34-	27=-260/0, 29-30 35=-110/3, 37-38	=-290/ =0/221	0, 31-32=-1 , 18-22=0/4	109/14, 4392,				· ×	N A	Ē
FORCES	(lb) - Maxi	40), 46=2 mum Com	pression/Maximum		8-4 9-4	7=-1308/319, 8-4 8=-631/140 9-40	8=-77/ =-774/	460, 123.			=		SE/		1 E -
	Tension	2 2_ 2505			10-	49=-62/557, 10-5	0=-143	39/285,	0/744		Ξ		0363	022	1 E -
	4-6=-4152	2-3=-2505 2/0, 6-7=-1	795/75, 7-8=-1696/5	^{2,} NOTES	11-	ov=-09/1014, 9-5	1=0/15	00, 7-47=-79	9/141		-		·		
	8-9=-3122 10-11=-12	2/365, 9-10 234/81, 11-)=-2972/390, -12=-1491/93,	1) Unbal	anced roo	of live loads have	been c	onsidered f	for			11	A NGIN	EE. P	- IT
	12-14=-35	69/0, 14-1	15=-3666/0,	this de	esign.							1	11. A. C	ALBE	1
	10-10=-40	,∪4/U, Z-40	J=-2120/U										· mm	11111V	4
													J	uiy 2,2024	4

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



Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A03T	Attic	3	1	I66625035 Job Reference (optional)

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Tue Jul 02 09:59:54

ID:OFJFx3IDTxFbWWzrBXohbzzRCTM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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

- 8) All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load ponconcurrent with any other live load
- 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.
- Ceiling dead load (5.0 psf) on member(s). 6-47, 47-48, 48-51, 49-51, 49-50, 12-50; Wall dead load (5.0psf) on member(s).6-39, 12-22
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 38-39, 36-38, 35-36, 33-35, 31-33, 30-31, 28-30, 26-28, 24-26, 23-24, 22-23
- 13) Refer to girder(s) for truss to truss connections.
- 14) One H2.ŠA Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20. 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

ned for a 10.0 psf bottom rent with any other live loads. gned for a live load of 20.0psf



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	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A04	Attic	1	1	I66625036 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 09:59:55 Page: 1 ID:DGN6a6f8caCKWpHw1clz1BzRCZx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 20-1-7 32-9-4 17-8-0 -0-10-8 8-4-4 16-2-4 24-7-0 29-0-9 31-6-0 39-5-4 46-3-15 53-2-0 2-5-71-3-4 0-10-8 8-4-4 7-10-0 4-5-9 4-5-9 6-8-0 6-10-12 6-10-1 1-5-12 _{5x6}=2-5-7 4x8. 4x8 🞜 3x5= 10x12 3x5= 3x8= 55 856 6 q 10 6¹² 11 5 囁 1 10 8 4x8 ≉ ল হ л 46 43 44 47 45 4x5 🗸 8x10 5x8 II 4x6 ı . 1₽357 3 ⁵³ 58 52 11-8-0 9-1-14 51 5x8. 14 5x8 59 2 2-10-0 15 ₽T 냻 **F** 30 Б 42 8 Ġ ¹⁹ ک X 41 40 39 36 33 60 31 28 61 25 23 20 18 17 16 4x5= 4x6= 6x10= 4x6 =2x4 u 3x5= 3x5= 3x6 II 4x8= 6x12= 4x6 = 6x10 =3x5 // 6x12= 4x5= 2x4 II 4x8 =2x4 II 2x4 II 5x10= 2x4 u12x16 u 4x5= 5x8= 12x16= 17-9-12 16-5-0^{2x4} 20-7-4 23-4-12 3x5= 29-10-0 32-9-4 26-11-8 29-9-0 32-6-8 12 28-4-4 31-1-12 1-4-12 1-4-12 1-4-12 16-2 19-2-8 22-0-0 25-6-12 39-5-4 45-6-0 13-11-0 45-3-4 53-2-0 8-4-4 37-3-0 ш 0-2-12 8-4-4 5-6-12 2-3-4 1-4-12 1-4-12 4-5-12 2 - 2 - 45-10-0 7-8-0 0-2-12 Scale = 1:94 1-4-12 2-2-0 1-4-120-1-0 0-2-12 Plate Offsets (X, Y): [6:0-3-0,0-2-0], [10:0-9-4,0-1-4], [12:0-4-0,0-4-8], [15 [4 dge,0-0-11], [20:0-3-4,0-3-0], [24:0-2-8,0-3-0], [38:0-4-8,0-3-0], [44:0-5-6,0-6-0] 2-0-0 CSI DEFL L/d PLATES GRIP Loading (psf) Spacing in (loc) l/defl TCLL (roof) 20.0 Plate Grip DOL 1.15 TC 0.53 Vert(LL) -0.28 34-35 >999 240 MT20 244/190 Snow (Pf) 20.0 Lumber DOL 1.15 BC 0.93 Vert(CT) -0.53 31-33 >999 180 TCDL Rep Stress Incr WB 10.0 YES 0.97 Horz(CT) 0.07 15 n/a n/a BCLL 0.0 Code IRC2018/TPI2014 Matrix-MSH -0.18 21-38 >999 360 Attic Weight: 506 lb BCDL 10.0 FT = 20% LUMBER BOT CHORD 41-42=-121/261, 39-41=-400/2529, 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) 36-39=-551/2596, 33-36=0/4116, Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. TOP CHORD 2x6 SP No.2 *Except* 6-10:2x4 SP No.2 31-33=0/5113, 28-31=0/5233, 25-28=0/4445 II; Exp B; Enclosed; MWFRS (envelope) exterior zone BOT CHORD 2x6 SP No.2 *Except* 38-24,24-21:2x4 SP 20-25=0/2705, 19-20=-1088/619, and C-C Exterior(2E) -0-7-14 to 4-7-15, Interior (1) No.2, 18-15,40-23:2x6 SP 2400F 2.0E 17-19=-613/770, 16-17=-433/1234, WEBS 2x4 SP No.3 *Except* 4-7-15 to 10-1-12, Exterior(2R) 10-1-12 to 39-0-4, Interior (1) 39-0-4 to 47-10-3, Exterior(2E) 47-10-3 to 15-16=-217/1570. 37-38=-377/930. 5-39,11-19,5-44,42-2,44-11:2x6 SP No.2, 35-37=-377/930, 34-35=-1595/0, 53-2-0 zone; cantilever left and right exposed ; end 17-14,41-2,21-17:2x4 SP No.2 32-34=-1595/0, 30-32=-2361/0, vertical left and right exposed:C-C for members and WEDGE Right: 2x4 SP No.3 29-30=-2361/0, 27-29=-2361/0 forces & MWFRS for reactions shown; Lumber BRACING 26-27=-722/716, 22-26=-722/2661, DOL=1.60 plate grip DOL=1.60 TOP CHORD Structural wood sheathing directly applied or TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 21-22=0/2661 3) 3-2-4 oc purlins, except end verticals, and WEBS 3-41=-926/0, 3-38=-93/680, 38-39=0/375, Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate 2-0-0 oc purlins (2-11-14 max.): 6-10. 5-38=0/1074, 19-21=0/523, 11-21=0/1114 DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; BOT CHORD Rigid ceiling directly applied or 3-6-6 oc 13-21=0/1168, 13-17=-1541/0, 14-17=0/2700, Cs=1.00; Ct=1.10 bracing. 14-16=-2581/120, 5-43=-2707/0, 4) Unbalanced snow loads have been considered for this WEBS 1 Row at midpt 3-38, 13-17, 5-44, 11-45 43-47=-2170/1023, 45-47=-1872/1023 desian. 1 Brace at Jt(s): 24, JOINTS 45-46=-2162/0, 11-46=-2774/0, 2-41=0/3146, 5) This truss has been designed for greater of min roof live 35, 27, 32, 44, 45, 20-21=0/2046, 36-38=0/1657, 20-22=-328/0, load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on 47 36-37=-226/0, 20-24=-1804/0, overhangs non-concurrent with other live loads. REACTIONS (size) 15= Mechanical, 16=0-5-8, 35-36=-1345/0, 24-25=0/1339, 33-35=0/1133, 200.0lb AC unit load placed on the bottom chord, 24-6-8 42=0-5-8 25-26=-257/0, 33-34=-164/0, 25-27=-1079/0, from left end, supported at two points, 5-0-0 apart. Max Horiz 42=-188 (LC 12) 32-33=-599/106, 27-28=0/1052, 7) Provide adequate drainage to prevent water ponding. 15=-127 (LC 14), 16=-53 (LC 15) Max Uplift ORTH 31-32=-228/381, 28-29=-254/0, 15=1026 (LC 44), 16=2681 (LC CAF Max Grav 30-31=-167/10, 7-43=-1356/306, 40), 42=2717 (LC 38) 7-44=-77/501, 8-44=-694/117, FORCES (lb) - Maximum Compression/Maximum 8-45=-719/129, 9-45=-75/505, Tension 9-46=-1390/307, 10-46=-58/1009, TOP CHORD 1-2=0/24, 2-3=-3682/0, 3-5=-4090/0, 8-47=0/170, 6-43=-75/788, 17-21=0/3112, CHIMAN CONTRACT 1111111111 5-6=-1619/70, 6-7=-1475/46, 7-8=-3051/370, 38-41=0/1521 SEAL

NOTES

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

8-9=-3024/353, 9-10=-1416/15,

2-42=-2822/0

ontinued on page 2

WARNING

10-11=-1646/36, 11-13=-4033/0,

13-14=-3120/0, 14-15=-1811/304,

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

036322

G minn July 2,2024

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	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A04	Attic	1	1	I66625036 Job Reference (optional)

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Tue Jul 02 09:59:55

ID:DGN6a6f8caCKWpHw1clz1BzRCZx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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

- 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.
- Ceiling dead load (5.0 psf) on member(s). 5-43, 43-44, 44-47, 45-47, 45-46, 11-46; Wall dead load (5.0psf) on member(s).5-38, 11-21
- 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
- 12) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 15.
- 14) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16. 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

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	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A04T	Attic	2	1	I66625037 Job Reference (optional)

Carter Comp	oonents (Sanford	, NC), Sanfor	rd, NC - 27332,			Run: 8	3.73 S Jun 13	2024 Print: 8.730	S Jun 13 2024	MiTek Indus	tries, Inc. Tu	ie Jul 02 09:59:55	5	Page: 1
	2-3-12			47.0	0	ID:DG	N6a6f8caCKW	VpHw1clz1BzRC2	2x-RfC?PsB70F	1q3NSgPqnL	8w3ul I XbG	KWrCD0i7J4zJC	?†	
	-0-10-8	7-9-12	13-3-12	16-3-4	0 20-1-7	24-7-0	29-0-9	31-6-0	39-5-4		46-3-15	53	-2-0	
	0-10-8	5-6-0	5-6-0	2-11-8 1-4-1	2-5-7 2	4-5-9	4-5-9	2-5-71-3-4	6-8-0	•	6-10-12	6-	10-1	
	20.2			5: 5x10 4	(6=	-		4X8;	*					
				7	_8	_ 59	960	10_ 11						
T			6 ¹² 8	x10 = 6					2					
			4x5 =	5 4	7	48 5	51 49	50		8x10👟				
			57 58	₽ //I *	5x8 I		4x6 I			18461				
Q	5x6	õ≠ 50	6 4			4				- AR	62			
1-8.	5x8 ≠	55							//			6x8.		
	3					0				×		15 63		
J	12													
-10-	44			42					ø					
⊥ ∾⊥	46 🖉 4	45 <u>♀</u> ⊥	43 41		8 36 3	5 33 31	30 28 2	6 124 23 22 705 04 20				- <i>9</i>	7	5 7 ,57,59
	4x8=	6x8=	4x5= 6x10=	6x12=	57 3 4)	4 64 32 (8= 4x5=	29 65 Z 2x4 II 5	x8= 6x10=	4x	6= 6x10=		17	4x	5=
				2x4=	2)	≪4∎ 2x4∎	∎ 4x5= 2	x4 II 2x4 II						
				17.0	¹ 952 7 -8	4x6 🛛 3	3x6 II 29	5x6 = 6x12	2= -4					
	0.5.0	7 0 40	40.0.0	16-5-0	¹² 2	2-0-0 25-	6-12 28-4-	431-1-12	⁺ ή	89-5-4	45.0.4	15-6-0 50		
	2-5-8	5-4-4	5-4-4	<u>16-3-4</u> 3-1-4 ∥	1-4-1	2 1-4-12	1-4-12 0-1	7-12 1-4-12	4-5-12	2-2-4	<u>45-3-4</u> 5-10-0 ()-2-12 7-8	<u>2-0</u> 3-0	
Scale = 1:9	4.9			0-1-12 1-4-1	2 1	-4-12 2-	2-0 1-4-1	2 1-4-12 0-9-0 0-2-1	2					
Plate Offse	ts (X, Y): [5:0	-5-0,0-4-8],	, [6:0-3-9,0-3-0], [7:0	-3-0,0-2-0], [1	140-1920,0	-1-4], [13:0-	-4-0,0-4-8], [22:0-4-8,Edge]	, [24:0-2-8,0-	3-0], [40:0-0	6-0,0-4-4],	[42:0-3-8,0-3-8	3], [44:0-5-8	,Edge]
Loading		(psf)	Spacing	2-0-0		csi		DEFL	in	(loc) l/de	efl L/d	PLATES	GRIP	
TCLL (roof Snow (Pf))	20.0 20.0	Plate Grip DOL	1.15 1.15		TC	(0.49 Vert(LL)	-0.28	35-36 >99 32-34 >99	99 240 67 180	MT20	244/190	
TCDL		10.0	Rep Stress Incr	YES		WB	(0.93 Horz(CT) -0.30 -) 0.14	16 n	/a n/a			
BCLL		0.0*	Code	IRC2018/T	PI2014	Matrix-I	MSH	Attic	-0.19	22-39 >99	99 360	Mainhty 540 I	- FT 200	N/
BCDL		10.0										weight: 518 l	$FI = 20^{\circ}$	%
LUMBER TOP CHOR	2x6 SP N	lo 2 *Excer	nt* 7-11·2x4 SP No 2	, BOT	CHORD	45-46=-1 43-44=-1	7/50, 44-45= 9/2304. 42-4	-4/22, 3-44=-15 3=0/3654.	501/0, 2	 Wind: A Vasd=10 	SCE 7-16; 03mph: TC	Vult=130mph DL=6.0psf: BC	(3-second g DL=6.0psf:	ust) h=25ft: Cat.
BOT CHOP	RD 2x6 SP N	lo.2 *Excep	ot* 45-3,5-41:2x4 SF	-		41-42=-30	05/54, 5-42=	-496/163,	7 0/4540	II; Exp B	; Enclosed	d; MWFRS (en	velope) exte	rior zone
	No.3, 41- 39-24.24	-25:2x6 SP -22:2x4 SP	2400F 2.0E, No.2			40-41=-5 32-34=0/	5/228, 37-40 5613, 29-32=	=0/3589, 34-37 =0/5675, 27-29:	=0/4546, =0/4812,	4-7-15 to	o 10-1-12,	Exterior(2R) 1	0-1-12 to 39	-0-4,
WEBS	2x4 SP N	lo.3 *Excep	ot*	00.0		21-27=0/2	2910, 20-21= 20/729, 17, 1	=-1096/606,		Interior ((1) 39-0-4	to 47-10-3, Ext	erior(2E) 47	-10-3 to
	40-42,18 3-32,29-2	-15,44-2,38 28,28-27,27	3-40,37-36,36-34,34 7-24,24-21,21-22,22	-33,3 -18:2		16-17=-4	00/1305, 38-	·39=-19/99,		vertical I	left and rig	ht exposed;C-0	C for membe	ers and
	x4 SP No	o.2, 12-20,6	6-12,46-2:2x6 SP No	.2		36-38=-49	99/226, 35-3 519/0 31-33	6=-2519/0, 3016/0		forces &	MWFRS 1 60 plate gr	for reactions sh	iown; Lumbe	er
TOP CHOR	RD Structura	al wood she	athing directly appli	ed or		30-31=-30	016/0, 28-30)=-3016/0,	3	B) TCLL: A	SCE 7-16	; Pr=20.0 psf (r	oof LL: Lum	DOL=1.15
	3-5-8 oc	purlins, ex	cept end verticals, a	nd		26-28=-1 22-23=0/2	140/621, 23- 2458	·26=-1140/2458	8,	Plate DO DOI =1	DL=1.15); 15): ls=1 ()	Pf=20.0 psf (Lu) [,] Rough Cat B	IM DOL=1.1	5 Plate Ce=0.9
BOT CHOP	RD Rigid cei	ling directly	applied or 3-0-3 oc	WEB	S	3-43=0/14	483, 4-43=-4	76/6, 4-42=-10	9/312,	Cs=1.00); Ct=1.10		·····, _···,	
1 Row at m	bracing.	Except:				40-42=0/3	3321, 6-42=- 98/403, 6-39	-281/1524,)=-470/559,	4	 Unbalan design. 	iced snow	loads have be	en considere	ed for this
WEBS	1 Row at	t midpt	6-39, 14-18, 6-48, 7	2-49		20-22=0/4	498, 12-22=0	0/1023, 14-22=	0/1303, 5	5) This true	ss has bee	n designed for	greater of m	nin roof live
JOINTS	1 Brace a	at Jt(s): 36, 4 48 49				15-17=-2	939/29, 6-47	/=-2279/0,		overhan	gs non-co	ncurrent with o	ther live load	ds.
	51	, , , , , , , , ,				47-48=-1	775/46, 48-5 555/1111 49	1=-1555/1111, 9-50=-1924/7	6	5) 200.0lb from left	AC unit loa	ad placed on th	e bottom ch	ord, 24-6-8
REACTION	IS (size)	16= Mech 46=0-5-8	nanical, 17=0-5-8,			12-50=-2	561/0, 2-44=	0/2699,	7) Provide	adequate	drainage to pre	vent water	ponding.
	Max Horiz	46=-188 ((LC 12)			38-40=-59 36-37=-13	99/177, 37-3 381/0, 34-36	8=-166/135, =0/1113,				"TH C	ABO	11,
	Max Uplift Max Grav	16=-231 (16=876 (L	(LC 14) LC 44). 17=3031 (L(C 40).		33-34=-4	84/106, 32-3	3=-236/179,	7_0/1292		(AN	OFEES	Sid	211.
		46=2680	(LC 38)	//		20-29=0/	919/0, 21-22	=-1165/0, 24-27 2=0/2168, 21-23	3=-323/0,		4	11	Z i	Sig
FORCES	(Ib) - Max Tension	ximum Corr	npression/Maximum			26-27=-2	50/0, 29-30= 25/0 7-47	-263/0, 31-32= 59/831	-138/10,			• /		1 E
TOP CHOP	RD 1-2=0/24	, 2-3=-2599	9/0, 3-4=-4191/0,	440		8-47=-13	61/315, 8-48	s=-79/505,			Ξ.	SE.	AL	÷ E -
	4-6=-430 8-9=-306	เบ/บ, 6-7=-1 64/389, 9-10	/1/140, 7-8=-1517 0=-3037/356,	/146,		9-48=-68	8/128, 9-49= 6/508, 10-50	-712/155,)=-1386/317.				036	322	1 E -
	10-11=-1	435/7, 11-1	12=-1652/38,			11-50=-7	5/978, 9-51=	0/164, 44-46=-	107/200,		1	N		÷
	12-14=-3 15-16=-1	512/513, 2	-46=-2826/0	NOT	- 5	18-22=0/2	2900				11	NGIN	VEER.	A.S.
				1) L	Inbalance	ed roof live l	loads have b	een considered	d for		11	C	BE	111 Martin
				tł	nis desigr	1.						"Innin	GILIN	
													uly 2,202	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/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.shearonponent Scom) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

RENGINEERING BY ΓΩ

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A04T	Attic	2	1	I66625037 Job Reference (optional)

- 8) All plates are 3x5 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load ponconcurrent with any other live load
- 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.
- Ceiling dead load (5.0 psf) on member(s). 6-47, 47-48, 48-51, 49-51, 49-50, 12-50; Wall dead load (5.0psf) on member(s).6-39, 12-22
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 38-39, 36-38, 35-36, 33-35, 31-33, 30-31, 28-30, 26-28, 24-26, 23-24, 22-23
- 13) Refer to girder(s) for truss to truss connections.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 16.
- 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. Tue Jul 02 09:59:55 ID:DGN6a6f8caCKWpHw1clz1BzRCZx-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)



						1						
Job		Truss		Truss Type		Qty		Ply	175 Serenity-Roof-	B326	B CP TMB BNS GLH	
24060145-0)1	A05		Attic Girder		1		4	lob Boforonoo (on	lional	I	66625038
Carter Compone	onte (Sanford NC) Sanford	NC - 27332		Run: 8 73 S Jun 13	2024 Pri	int: 8.7	730 S lun 13	2024 MiTek Industries	lional)	ue lul 02 00:50:56	Page: 1
ounor compone), oumore	1,110 21002,		ID:VIY0g5gMUgwQZ	RyxiBX	YltzRA	_f-RfC?PsB	70Hq3NSgPqnL8w3ul7	XbGKV	WrCDoi7J4zJC?f	r ago. r
	0 10 0			20-1-	7		3	2-9-4				
	-0-10-8 8	<u>5-8-0</u>		<u>16-2-4</u> 17-8-0	24-7-0 29-0	-9 3	1-6-0	$1 + \frac{37}{4}$	<u>7-2 42-7-12</u>		47-8-6 53-0-	· <u>8</u>
	0-10-8	5-0-0	5-4-0	5-1-12 1-5-12 5x≩=5-7	, 4-0-9 4-0- ,	9 2	2-5-1	1-3-4 4x8	5-14 5-0-10		5-0-10 5-4-2	2
				6x8 ≠	3x5= 3x8=	3x5	5= 5	x6=				
_				7	8 59 960	⊠ 10	N	11				
				6								
			12 4x6 =	48	51 46 50 52		4	9	13 4x6.			
			61 45 58 WH	4x6 II	5x6= 4x6	5 II	4x	(6 II				
0			57		3x0 II					6215		
-8-		_	3							AN N		
÷	5x6 ≉				<u>ь</u>					/ `	16	
	_T 1 ²											
0-0						5	9	<u>لم</u>				176
2-7	45		4		37364 33 31 29			FTI/		┉╟╱		<u> </u>
	回 MT20HS 8x1	2 1	44 43	63 41 39	35 32 30	27	23	3 <u>22</u>	64 21 2	2019	18	<u>ي</u> ۲
		:	5x8=	12x16= 3x5	3x6 = 2x4	3	3x5=	0	2	x6=	2x4 I	
				4x8= 2x4 II	$4x8 = 2x4 \parallel 3x$	o= 12x16:	= 2x	8= 4 u				
				2/// 8	3x5=	12,110	- 24	4x6 II				
				19-2-8 17-9-12	22-0-0 25-6-12 28	28-6-0 3-4-4 3) 1-1-1	³³¹² 10 2	42	-7-12		
	⊢ <u>5</u>	5-8-0	11-0-8	<u>15-11-8</u> 16-5-0 20	-7-4 23-4-12 26-11-	8 29-9	0-0-32	2-6-8 37	<u>-7-2 41-11-8</u>	++	47-8-6 53-0-	-8
Scale = 1:97.7	Ę	5-8-0	5-4-8	4-11-0 0-5-8 1-4-12 1-4-12 1-4	1-4-12 2-2-0 1-12 1-4-12 1-4-12	1-3- 2 1	-0 1- 1-4-12	·4-12 ^{4·} 2 0-6-8	6-2 4-4-6 ()-8-4	5-0-10 5-4-2	2
Plate Offsets (X, Y): [2:0-2-	11,0-2-8]	, [6:0-4-0,0-4-0], [7:0	-3-0,0-2-0], [11:0-3-0,0	-2-0], [22:0-8-0,0-4-12]	4-12 b[1]10	-8-0,0)-5-0], [44:0	-3-0,0-3-4], [49:0-1	-12,0-2	2-0]	
Leading		(20)	Succina	2.0.0	0.01	Ι.	DEEL		in (les) l/defl	/a		
TCLL (roof)		(psi) 20.0	Plate Grip DOL	2-0-0).74	Vert(L	_L) -0.3	38 38-40 >999	240	MT20 24	4/190
Snow (Pf)		20.0	Lumber DOL	1.15	BC (0.80	Vert(C	CT) -0.	57 38-40 >691	180	MT20HS 18	7/143
TCDL		10.0	Rep Stress Incr		WB (0.90 H	Horz(CT) 0.1	12 17 n/a	n/a		
BCDL		10.0	Code	IRC2010/1912014		í	Auc	-0	20 24-42 >999	300	Weight: 2083 lb FT	= 20%
					1-2-0/23 2-3-13774	/878 3	2-51	7583/1152				
TOP CHORD	2x6 SP No.2	*Except	* 7-11:2x4 SP No.2		5-6=-19015/1247, 6-7	=-4739	9/384,	1000/1102				
BOT CHORD	2x6 SP No.2	2 *Except	* 42-36:2x4 SP No.3	4	7-8=-4856/375, 8-9=-5	5414/68 1371	52, 15/303	2	JOINT 22 CAPAB	LE OF	WITHSTANDING 9168	LBS UPLIFT
	SP No.2	.280 3P	2400F 2.0E, 36-24.2	(4	11-12=-4281/354, 12-	13=-18	3405/1	, 1252,	TRUSS. IT IS THE	E RESP	PONSIBILITY OF THE P	ROJECT
WEBS	2x4 SP No.3	8 *Except	*	5	13-15=-15577/1034, 1	5-16=-	-1098	2/719,	ARCHITECT/ENG THE TRUSS TO 1	INEER	TO DESIGN THE CON ARING PLATE, PROVID	NECTION OF DE AND DESIGN
	No.2, 44-2:2	x4 SP N	-6,46-12,53-22:286 S 0.2	BOT CHORD	44-45=-120/299, 43-4	4=-824	1/1232	29,	CONNECTION SY	STEM	FOR A CONTINUOUS	LOAD PATH
WEDGE	Right: 2x4 S	P No.3			41-43=-966/15822, 40)-42=-2	2044/0),	FOOTING/FOUND	DATION	N TO RESIST SUCH UP	LIFT.
	Structural w	and char	thing directly applied	or	34-37=-3975/0, 33-34	=-3975 =-4180	5/0,)/0,		FAILURE TO DO	SO WIL	LL VOID THIS CONSTR	UCTION.
TOP CHORD	6-0-0 oc pur	lins, exc	cept end verticals, and	d l	31-33=-4180/0, 29-31	=-4180)/O,					
	2-0-0 oc pur	lins (6-0-	-0 max.): 7-11.		28-29=-1672/334, 26- 25-26=-399/4325, 24-	28=-14 25=-39	187/45 99/432	51, 25.				
BUICHURD	bracing.	directly	applied of 6-0-0 oc		39-41=-1178/17130, 3	35-39=-	-516/1	19399,				
JOINTS	1 Brace at J	t(s): 26,			32-35=-83/20015, 30- 23-30=-298/18554, 22	32=0/1 2-23=-7	9938 765/11	, 1781.				
	38, 29, 34, 5 52	00, 51,			21-22=-777/13896, 19	9-21=-5	551/98	346,				
REACTIONS	(size) 17	7=20-6-0	, 18=20-6-0, 19=20-6	i-0,	18-19=-232/4131, 17-	18=-23	32/413	31				
	2 ⁴	1=20-6-0 4=20-6-0	, 22=20-6-0, 45=0-5-	8,								
	Max Horiz 4	5=-186 (l	_C 10)								mining	11.
	Max Uplift 17	7=-144 (l	LC 12), 18=-334 (LC	12), 12)							TH CAR	Dille
	22	2=-9168	(LC 46), 45=-755 (LC							E	OFFESE	Nº1
	Max Crew 12	2), 54=-1	44 (LC 12)							20	~~ /2	in the
	wax Grav 1	r=∠040 (6), 19=38	20 40), 18=6186 (LC	(LC								
	40	6), 22=10	060 (LC 12), 45=1180	1					Ξ		SEAL	÷ Ξ
FORCES	(L) - Maxim	.C 46), 5 um Com	4=2640 (LC 46)						E		036322	i i E
I ONGES	Tension		prossion/iviaAll110111						1		λ.	1 3
									5	- 1	N. ENGLICE	RIL S
										11	POGINES	FRIN
											MA. GIL	Dinn
											"mmmm	2024



INGINEERING BY REN ΓO 818 Soundside Road Edenton, NC 27932

July 2,2024

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A05	Attic Girder	1	4	I66625038 Job Reference (optional)

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Tue Jul 02 09:59:56

ID:VIY0g5gMUgwQZRyxiBXYItzRA_f-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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

WEBS 3-44=-5190/400. 3-43=-227/4869. 5-43=-3030/192, 5-41=-163/2230, 22-24=-672/7141, 12-24=-542/7515, 13-22=-315/5531, 13-21=-6013/388, 15-21=-338/6051, 15-19=-6897/448, 16-19=-373/6695, 16-18=-6290/413, 6-48=-12398/807. 48-51=-12309/590 50-51=-11921/545, 50-52=-11921/545, 49-52=-12963/773, 12-49=-13904/947, 2-44=-777/13136, 41-42=-678/7351, 6-42=-473/8475, 23-24=0/1099, 39-42=0/2190, 23-25=-596/0, 39-40=-291/0, 23-26=-2739/0, 38-39=-1134/5, 26-27=0/3052, 35-38=0/1155, 27-28=-1201/68, 35-37=-412/19, 27-29=-1339/0, 34-35=-226/307, 29-30=0/1597, 32-34=-149/107, 30-31=-436/0, 32-33=-197/0, 7-48=-150/1360, 11-49=-226/2857, 9-50=-35/667, 8-48=-1169/283, 8-51=-256/307, 9-51=-1003/173 10-49=-1476/304, 10-52=-56/501, 9-52=-1359/194

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 0-9-0 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 4x5 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.
- Ceiling dead load (5.0 psf) on member(s). 6-48, 48-51, 50-51, 50-52, 49-52, 12-49; Wall dead load (5.0psf) on member(s).12-24, 6-42
- 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 40-42, 38-40, 37-38, 34-37, 33-34, 31-33, 29-31, 28-29, 26-28, 25-26, 24-25
- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9168 lb uplift at joint 22.

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) 21, 19, 18, and 17. 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 28-7-12, and 9100 lb down and 774 lb up at 16-2-4 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, 7-11=-60, 11-17=-60, 45, 54-20, 24, 42-20, 6, 48-10, 48, 51-10, 48, 51-10, 48, 51-10, 48, 51-10, 48, 51-10, 48, 51-10, 48, 51-10, 51
 - 45-54=-20, 24-42=-30, 6-48=-10, 48-51=-10, 46-51=-10, 46-52=-10, 40
 - 46-51=-10, 46-50=-10, 50-52=-10, 49-52=-10, 12-49=-10
 - Drag: 24-53=-10, 12-53=-10, 42-47=-10, 6-47=-10
 - Concentrated Loads (lb)
 - Vert: 41=-4881 (F), 28=-326 (F)



Job	Truss		Truss Type		Qty	Ply	175 Serenity-Roof-B326	B CP TMB BNS GLH	
24060145-01	A06		Attic Girder		1	4	Job Reference (optional)	166625039	
Carter Components (Sanford, N	IC), Sanfor	d, NC - 27332,	20-1-7	Run: 8.73 S Jun 13 2 ID:pGeZvt1?IwruiNEY	024 Print: 8.7 _xH4fkzRAp 32-9	730 S Jun 13 7-RfC?PsB7 9-4	2024 MiTek Industries, Inc. Tu 0Hq3NSgPqnL8w3uITXbGKW	ie Jul 02 09:59:57 Page: 1 rCDoi7J4zJC?f	
-0-10-8 4 	5-8-0 5-8-0	<u>11-0-8 1</u> 5-4-8 5	<u>6-2-4 17-8-0</u> -1-12 1-5-12 _{5xg=5-7}	<u>24-7-0</u> <u>29-1-4</u> 4-5-9 4-6-4	31-6-0 2-4-12 1-3	<u>37-7-</u> 4-10-	9 <u>42-8-10</u> 47- 555-1-15-	9-10 53-5-8 1-1 5-7-14	
			6x8 ≠ 3x5 78	5= 3x8= 58_959	3x5= 5x6= 1011	•			
T		10	4x6 = 6 48	51 49 52	50	12			
0		6 ² 4 57	4x6 II	4x6 u	4x6 II		13 ^{4x6} * 1460 61 45		
∞ 1 1 5x6 ≠	3			9-1-14					
	E	<u>∎ 15</u> 45 44	62 4 3 6340 37	36 34 32 31 29 2 35 33 30 2826	$\frac{25}{25}$ $\frac{24}{22}$	101 7 ⊠ ⇔ 2231	20 19		
PROVIDE CONNECTION C CAPABLE OF WITHSTANE	4: OF TRUSS DING 3767	X8= TO BEARING PLATE A LBS UPLIFT REACTION	12x16= 3x5= T JOINT 21 3x5= 4x8 N DUE TO	$3x5 = 2x4 \parallel 4x8 = 4x$ $3 = 2x4 \parallel 2x4 \parallel$	s= ع 6x8=	3x10=	8x10=	2x4 II 4x0=	
GRAVITY LOADING APPLI OF THE PROJECT ARCHI OF THE TRUSS TO THE B	ED TO TH FECT/ENG EARING P	E TRUSS. IT IS THE RE INEER TO DESIGN THE LATE. PROVIDE AND D	SPONSIBILITY 2×4 ECONNECTION 9-0 DESIGN 17-4-4	4 12x16 3x6 3x5 = 3x5 = 4x6 =	4x8= 29-9-0 ^{2x4} "				
CONNECTION SYSTEM FO TRUSS TO THE FOUNDAT	DR A CON	TINUOUS LOAD PATH DESIGN FOOTING/FOI	FROM 195-0 JNDA100-6 21 -10-0 20-1-12	-6-8 24-0-4 27-7-8 222-11-4 26-11-829	4¶∥ 3€ 31-1-12 -5-8 32-6	x40⊌ -8 37-7-	9 42-8-10 47-	9-10 , 53-5-8 ,	
THIS CONSTRUCTION. 5 Scale = 1:99.6	5-8-0	5-4-8 4	-9-8 0-2-6 1-4-12 0-4-10 1-4	1-4-12 1-6-8 0-8-0 4-12 1-1-0 1-4-12 1-	0-3-81-4- ⁻ -1-4 0	12 4-7-9 -5-8	9 5-1-1 5-	1-1 5-7-14	
[2:0-2 Plate Offsets (X, Y): [45:0-	-11,0-2-8 3-8,0-2-0], [6:0-4-0,0-4-0], [7:0-], [50:0-1-12,0-2-0], [5 I	3-0,0-2-0], 14 14013-0,0 1:0-5-6,0-6-0]	-2-0], [17:0-2-10,0-2-0],	[20:0-4-12	,0-4-8], [23	:0-2-4,Edge], [25:0-2-8,Ed	ge], [43:0-7-4,Edge],	
Loading TCLL (roof)	(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15	CSI TC 0.	70 Vert(L	_L) -0.	in (loc) l/defl L/d 37 43 >999 240	PLATES GRIP MT20 244/190	
Snow (Pf) TCDL	20.0 10.0	Lumber DOL Rep Stress Incr	1.15 NO	BC 0. WB 1.	99 Vert(0 00 Horz(CT) -0. CT) 0.	56 43 >701 180 11 17 n/a n/a		
BCLL BCDL	0.0* 10.0	Code	IRC2018/TPI2014	Matrix-MSH	Attic	-0.	18 23-42 >999 360	Weight: 2106 lb FT = 20%	
LUMBER			BOT CHORD	45-46=-119/304, 44-45	=-802/1158	33,	1) 4-ply truss to be co	onnected together with 10d	
BOT CHORD 2x6 SP No BOT CHORD 2x6 SP No 2400F 2.0E SP No 1	2 *Excep 2 *Excep , 42-25:2	t [*] 7-11:2x4 SP No.2 t* 46-43,43-28:2x6 SF x4 SP No.2, 25-23:2x	4	40-44=-948/15675, 37- 35-37=0/14475, 33-35= 30-33=0/13303, 26-30= 22-26=0/4726, 21-22=-	40=-470/18 =0/13303, =0/9073, 2131/0, 41	-42=0/1810	Top chords conne staggered at 0-9-0 Bottom chords cor	s follows. cted as follows: 2x6 - 2 rows) oc, 2x4 - 1 row at 0-9-0 oc. nnected as follows: 2x6 - 2 rows	
WEBS 2x4 SP No 6-43,12-21 45-2,23-20	3 *Excep 51-12,47 2x4 SP N	t* -43,51-6:2x6 SP No.2 lo.2	,	39-41=-279/0, 38-39=- 36-38=-1172/349, 34-3 32-34=-1134/2171, 31-	1172/349, 6=-1134/2 ⁻ 32=-1150/3	171, 3801,	staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc. Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-4-0 oc, Except member 43-47 2x6		
BRACING TOP CHORD Structural v	vood shea	athing directly applied	or	29-31=-1150/3801, 27- 24-27=-1070/13147, 23 10 21- 957/14522, 19	29=-1070/8 3-24=-641/ 10- 800/11	3224, 13147,	- 3 rows staggered rows staggered at	d at 0-4-0 oc, member 12-21 2x6 - 2 0-9-0 oc. diam bolts (ASTM A 207) in the	
6-0-0 oc pu 2-0-0 oc pu DOT CUODD Digid equip	irlins, exc irlins (6-0	cept end verticals, and -0 max.): 7-11.	WEBS	17-18=-809/13886 3-45=-4981/408, 3-44=	-236/4646.	5000,	center of the mem 2) All loads are consi	ber w/washers at 4-0-0 oc.	
bor CHORD Rigid ceilin bracing, E 6-0-0 oc br	acing:	applied of 10-0-0 00		4-44=-2362/140, 4-43= 42-43=-360/7203, 6-42	-120/1666, =-450/7853	3,	except if noted as CASE(S) section.	front (F) or back (B) face in the LOAD Ply to ply connections have been	
21-22,39-4 JOINTS 1 Brace at	1,38-39,3 Jt(s): 42,	6-38,20-21.		21-23=-715/4597, 12-2 13-23=-131/2167, 13-2	3=-520/669 0=-1905/11	92, 11,	provided to distribution unless otherwise in a second seco	ute only loads noted as (F) or (B), ndicated.	
25, 39, 29, 51, 52	36, 49,			10-20=-059/160, 15-19 16-19=-115/856, 16-18 6-48=-11335/773, 48-4	=-24/223, =-372/94, 9=-11324/!	559,	this design.	ve loads have been considered for	
REACTIONS (size)	1 / = Mech 16=0-5-8 16=-189 /1	anıcal, 21=0-5-8,		49-52=-11110/521, 50- 12-50=-13242/930, 2-4	52=-12247 5=-757/123	/755, 319,			
Max Uplift	17=-454 (l 15), 46=-7	LC 12), 21=-3767 (LC '41 (LC 12)		22-23=0/4433, 22-24=- 22-25=-2875/0, 39-40= 25-26=0/3161_37-30=	842/0, 40-4 -642/333, 273/411	¥1=0/1173,	I'ller	OR RESS A	
Max Grav	17=7895 (16=11113	(LC 46), 21=771 (LC 1 (LC 46)	2),	26-27=-995/39, 37-38= 26-29=-2092/0. 36-37=	-425/15, -314/1436.		a	a the second	
ORCES (Ib) - Maximum Compression/Maximum Tension				29-30=-35/3006, 35-36 30-31=-490/11, 34-35=	=-1349/197 -121/0,	7,		SEAL	
COP CHORD 1-2=0/22, 2-3=-12934/859, 3-4=-16570/1138, 4-6=-1750/1199, 6-7=-4436/372, 7-8=-4557/364, 8-0=-5058/640				30-32=-1832/17, 32-33 41-43=-2284/0, 7-48=-	=-44/722, 147/1245,			036322	
9-10=-4579/617, 10-11=-3043/286, 8-4 11-12=-3677/338, 12-13=-16839/1189, 9-5				9-49=-33/615, 11-50=-225/2/99, 8-48=-1132/281, 8-51=-304/284, 0.54, 0.704/27, 40.50, 4540/202					
13-15=-158 16-17=-157	396/1121, 22/960, 2	15-16=-16181/1063, 2-46=-10932/758		10-52=-60/557, 9-52=- 20-23=-170/13641	-1510/303, 1388/196,			A CILBE	
			NOTES					luk 2 2024	
								July 2,2024	

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 MTek® 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, rection 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)

ENGINEERING B

⁸¹⁸ Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A06	Attic Girder	1	4	I66625039 Job Reference (optional)

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Tue Jul 02 09:59:57

ID:pGeZvt1?lwruiNEY_xH4fkzRAp7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?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 4x5 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Ceiling dead load (5.0 psf) on member(s). 6-48, 48-51, 49-51, 49-52, 50-52, 12-50; Wall dead load (5.0psf) on member(s).6-42, 12-23
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 41-42, 39-41, 38-39, 36-38, 34-36, 32-34, 31-32, 29-31, 27-29, 25-27, 24-25, 23-24
- 14) Refer to girder(s) for truss to truss connections.
 15) Bearing at joint(s) 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 16) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 454 lb uplift at joint 17 and 3767 lb uplift at joint 21.
- 17) LGT4-SDS3 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 46. 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) 9100 Ib down and 774 lb up at 16-0-12 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, 7-11=-60, 11-17=-60, 46-53=-20, 23-42=-30, 6-48=-10, 48-51=-10, 49-51=-10, 49-52=-10, 50-52=-10, 12-50=-10 Drag: 42-47=-10, 6-47=-10, 12-23=-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/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	175 S	erenity-Roof-B3	326 B CP TMB BI	NS GLH
24060145-01	1	A07		Attic		1	2	Job R	eference (option	nal)	166625040
Carter Componen	nts (Sanford, NC), Sanford,	, NC - 27332,		Run: 8.73 S Jun 13 2 ID:h5TFO2tlZyfWTvV:	024 Print: 8 spKto8_zR0	.730 S Jun 13 Qij-RfC?PsB70	2024 M 0Hq3NS	iTek Industries, In gPqnL8w3uITXbG	nc. Tue Jul 02 09:59: GKWrCDoi7J4zJC?f	58 Page: 1
	-0-10-8 - - 0-10-8	<u>8-4-4</u> 8-4-4	16-2- 7-10-	4 17-8-0 <u>21-2-6</u> 0 1-5-12 3-6-6	<u>6 24-7-0 27-11-10</u> 3-4-10 3-4-10	32- <u>31-6-0</u> 3-6-6 1-	10-3 <u>37-7-</u> 4-3 4-9-1	4 I	45-2-2 7-6-14	<u>53-5</u> 8-3	5-8I -6I
0-8-1 -0-0-1-2 -0-1-2 -0-0	5x6 = 1 2 47 47 47 47 MT18HS 3x10	64 m 8-4-4 8-4-4 10-2-8	$65_{a} + 62_{b} + 6$	5x6= 4x8 = 5x6= 4x8 = 5x6= 4x8 = 5x6= 2x4 = 2x4 = 1x7-9-12 16-5-0 20-7 16-2-4 19-2-8 2-7 16-2-4 1-4-1 1-4-1 1-2-12	3x5 = 2x4 = 3x5 7 = 56 = 857 = 9 48 = 52 3x6 = 5x8 = 5x	E 5x6 10 51 5x6 5x6 229127 2 2826 6x12= 12 2x4 II 2x4 II 2x4 II = 4x 4x6= 30x6⊑12 : 1-0 31-10 29-9-0 32 -1-1 -1-1 12 1-4-1 0-8-0 0-1 12 370-14-6	6x8 5 11 11 11 11 14 14 5 5 5 5 5 5 5 5 5 5 5 5 5	12 12 13 14 10 12 12 12 12 12 12 12 12 12 12	$4x6 \approx$ 593.99 60 60 60 60 60 60 60 60 60 7 7 61 60 7 7 7 61 7 7 7 7 7 7 7 7	14 61 16 2x4 II + 53-6 8-3 4.0-3-01 [29:0-1-6	$4x8=$ $2 \boxed{\frac{12}{124}} + \frac{12}{124} + 12$
Plate Offsets (X	[2:0-2-1 (, Y): [30:0-3-	1,0-2-8], -8,0-2-0],	[6:0-3-0,0-2-0], [10:0 [37:0-2-12,0-3-0], [4)-3-0,0-2-0], [154018 -0, 6:0-3-8,0-3-0]	,0-0-7], [17:0-8-0,0-5-0],	[23:0-4-8	(0 <u>-258</u> 8, [25:0	0-2-0-21	9-2-0], [26:0-3-2	4,0-3-0], [29:0-1-8	3,0-1-12],
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	3-2-0 1.15 1.15 NO IRC2018/TPI2014	CSI TC 0. BC 0. WB 0. Matrix-MSH	.67 Verti .93 Verti .96 Horz Attic	L (LL) -0. (CT) -0. (CT) 0. -0.	in (l 35 36 55 39 09 23 23	loc) l/defl l -37 >999 2 -40 >706 1 15 n/a r -43 >866 3	L/d PLATES 240 MT20 180 MT18HS n/a 360 Weight: 100	GRIP 244/190 244/190 00 lb FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD JOINTS REACTIONS (FORCES TOP CHORD	2x6 SP No.2 2x6 SP No.2 2x6 SP No.2 17-15,45-28: SP 2400F 2. 2x4 SP No.3 SP No.2, 5-4 2-0-0 oc purl verticals (Switched fro Rigid ceiling bracing. 1 Brace at Jt 10, 37, 2, 21 25, 29, 34, 4 51, 52 (size) 15 (size) 15 (size) 15 47 Max Horiz 47 Max Uplift 24 Max Grav 15 40 (b) - Maximu Tension 6-7=-2801/8; 8-9=-5632/7 10-11=-2765 12-14=-6256 2-47=-4665/ 3-5=-6383/0,	*Except* *Except* 2x6 SP 2 *Except* 8,46-2,48 ins (5-1-1 om sheete directly a (s): 6, , 40, 9, 50, i= Mecha =-0-5-8 '=-299 (Lt =-178 (Lt i=3627 (L u)), 47=478 Jun Comp 7, 7-8=-56 43, 9-10= /188, 11- /0, 14-15 5-6=-30'	 ⁶ 6-10:2x4 SP No.2 ⁴ 43-37:2x4 SP No.2, ¹ 43-37:2x4 SP No.2, ¹ 400F 2.0E, 37-18:2x ² 5-44,23-11,49-23:2; ⁸ 5-44,23-11,49-23:2; ⁸ 11:2x4 SP No.2 ¹⁴ max.), except end ed: Spacing > 2-8-0). applied or 5-5-4 oc ¹⁴ max.), except end ed: Spacing > 2-8-0). applied or 5-5-4 oc ¹⁵ 12 (LC 14). ¹⁶ 12 (LC 38) ¹⁶ 12 (LC 38) ¹⁷ 12 (LC 38) ¹⁷ 238/0, ¹⁰ 24, 2-3=-6237/5, ¹⁵ 140 	BOT CHORD	$\begin{array}{c} 46\text{-}47176/359, 44\text{-}46\\ 41\text{-}44\text{-}0/5404, 38\text{-}41\\ 35\text{-}38\text{-}0/10222, 33\text{-}35\text{-}\\ 30\text{-}33\text{-}0/7779, 26\text{-}30\\ 24\text{-}263740/1091, 22\text{-}\\ 20\text{-}221978/560, 16\\ 20\text{-}221978/560, 16\\ 20\text{-}221978/560, 16\\ 12\text{-}25\text{-}27461/5648, 23\\ 21\text{-}23\text{-}3078/1820, 27\\ 25\text{-}27461/5648, 23\\ 21\text{-}23\text{-}230/9747, 1921\\ 34\text{-}4\text{-}0/626, 5\text{-}43011\\ 12\text{-}18774/35, 14\text{-}17\\ 14\text{-}16\text{-}0/467, 5\text{-}5036\\ 50\text{-}522859/1138, 51\\ 11\text{-}514015/90, 2\text{-}46\\ 18\text{-}203952/0, 41\text{-}43\\ 41\text{-}42316/0, 20\text{-}21\\ 38\text{-}405/1450, 38\text{-}39\\ 37\text{-}38816/250, 26\text{-}227\\ 35\text{-}36273/0, 26\text{-}29\\ 29\text{-}300/3812, 33\text{-}34\\ 30\text{-}31827/0, 23\text{-}49\\ 12\text{-}49375/424, 6\text{-}50\\ 10\text{-}5199/1371, 8\text{-}52\\ 7\text{-}502541/572, 7\text{-}52\\ 9\text{-}52120/973, 9\text{-}51\\ \end{array}$, , , , , , , , , , , , , , , , , , ,	1) 2) 3)	2-ply truss to b (0.131"x3") na Top chords co oc, 2x6 - 2 row Bottom chords staggered at 0 Web connecte 2 rows stagge All loads are c except if notec CASE(S) secti provided to dis unless otherwi Unbalanced ro this design.	be connected tog uils as follows: onnected as follow vs staggered at 0 s connected as follow vs staggered at 0 s connected as follows: 2x4 red at 0-9-0 oc. considered equally d as front (F) or bi cion. Ply to ply cor stribute only loads ise indicated. bof live loads have	ether with 10d vs: 2x4 - 1 row at 0-9-0 -9-0 oc. Ilows: 2x6 - 2 rows ow at 0-9-0 oc. - 1 row at 0-9-0 oc, 2x6 - v applied to all plies, ack (B) face in the LOAD inections have been s noted as (F) or (B), e been considered for CAR CAR CAR CAR CAR CAR CAR CAR
				NOTES						THICA.	GILBER

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

818 Soundside Road Edenton, NC 27932

July 2,2024

RENCO

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A07	Attic	1	2	I66625040 Job Reference (optional)

- 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 and C-C Exterior(2E) -0-7-14 to 4-8-4, Interior (1) 4-8-4 to 10-1-6, Exterior(2R) 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 (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 4x5 MT20 unless otherwise indicated.
- 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). 5-50, 50-52, 51-52, 11-51, 12-49; Wall dead load (5.0psf) on member (s).5-43, 23-49, 11-49
- 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 42-43, 40-42, 39-40, 37-39, 36-37, 34-36, 32-34, 31-32, 29-31, 27-29, 25-27, 23-25
- 15) Refer to girder(s) for truss to truss connections.
- 16) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 47 and 24. This connection is for uplift only and does not consider lateral forces.
- 17) 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.
- 19) 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. Tue Jul 02 09:59:58 ID:h5TFO2tiZyfWTvVspKto8_zRQij-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2



Job	Truss		Truss Type		Qty	Ply	175 Se	erenity-Roof-B326	B CP TMB BNS	GLH
24060145-01	A08		Attic		1	2	Job Re	eference (optional)		166625041
Carter Components (Sa	anford, NC), Sanford	d, NC - 27332,		Run: 8.73 S Jun 13 2	2024 Print: 8	3.730 S Jun 13	2024 Mi	Tek Industries, Inc. Tu	ue Jul 02 09:59:59	Page: 1
	0.4.4	10.0	17-8-0 -1		32-1	10-3	Jingoinog	45.0.0	50 F 0	
H	8-4-4	7-10-0	1.5-12 3-6-6	3-4-10 3-4-10 3	3-6-6 1-4	<u>37-7-4</u> 1-3 4-9-1		45-2-2 7-6-14	<u>53-5-8</u> 8-3-6	
			4x8 ≠	3x5= 2x4 II 3x5=	5x6	=				
Т			4x6 = 4	6 59 760 8		10				
		612	3 49	47 51	50		11 ⁴	1x6 ≈		
		25758		3x6= 5x8=	526 1	48		612 ₆₂		
1-8-0	55	56		-1-14		6 ₩ 8 II		X	3	
5	5x6 = R			0		 \$			A 64	
0-0									A Contraction of the second se	0-0
		45 05		836 35 33 31 30 2	28 26 24	8670 18				
MT18H	HS 3x10 ॥	45 65 6x8=	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	7 34 32 29 (8= 4x8= 2x4 11)	2725 6x12=	22221 9 19 8x10= 6x1	16 0=	15 2x	o 4 II	4x8=
			10x12= 3x5= 2x4 II 2x	$5x10= 3x5= 2x4 \parallel$ $x4\parallel 2x4\parallel 4x8=$	2x4 II 4x8	3x8= 3= 2x4	12x16=			
			17-9-12	4	x6= 30 30a _x 5a≞1233	33-5-0 3-0-0	37-7-4 37-6-8			
L	8-4-4	13-10-0	16-5-0 20-7- 16-2-4 19-2-8 2	4 23-4-12 26-2-4 29-1 2-0-0 24-9-8 27-8-429	-0'31-10-6 9-9-0 32-	8 34-8-0 37 9-4 36-0-1	-5-8 2	45-2-2	53-5-8	4
Scale = 1:99.6	8-4-4	5-5-12	2-4-4 1-4-1 0-2-12 1	2 1-4-12 1-4-12 1-4-′ -4-12 1-4-12 1-6-0 0	12 1-4-12 -8-0 0-10	2 1-3-0 1- 0-12 1-4-12	4-12	7-6-14	8-3-6	·
Plate Offsets (X, Y):	[5:0-3-0,0-2-0], [36:0-2-12,0-3-	[9:0-3-0,0-2-0], [14:0- 0], [45:0-3-8,0-3-0]	8-0,0-0-7], [164018-0,0	0-5-0], [22:0-4-8,0-2-8],	24:0-2-12	<u>; 6.32; 6</u>], [25:0	0-1-0 0-0-12-	3-0], [28:0-1-8,0-1-	12], [29:0-3-8,0-2	2-0],
Loading	(psf)	Spacing	3-2-0	CSI	DEF	۳ ـ	in (le	oc) I/defl L/d	PLATES	GRIP
Snow (Pf)	20.0 20.0	Lumber DOL	1.15 1.15	BC 0	.58 Vert .93 Vert	(LL) -0. (CT) -0.	35 35- 55 38-	36 >999 240 39 >706 180	MT20 MT18HS	244/190 244/190
TCDL BCLL	10.0 0.0*	Rep Stress Incr Code	NO IRC2018/TPI2014	WB 0 Matrix-MSH	.96 Horz Attic	z(CT) 0. ; -0.	09 23 22-	14 n/a n/a 42 >866 360		
BCDL	10.0								Weight: 996 lb	FT = 20%
LUMBER TOP CHORD 2x6	SP No.2 *Excep	t* 5-9:2x4 SP No.2	BOT CHORD	45-46=-171/360, 43-45 40-43=0/5394, 37-40=	5=-20/5390 0/8338,	0,	1)	2-ply truss to be c (0.131"x3") nails a	onnected togethe	er with 10d
BOT CHORD 2x6 16-1	SP No.2 *Excep 14,44-27:2x6 SP	t* 42-36:2x4 SP No.2, 2400F 2.0E, 36-17:2x	4	34-37=0/10223, 32-34 29-32=0/7779, 25-29=	=0/9620, -833/4809),		Top chords conne staggered at 0-9-0	cted as follows: 2) oc, 2x4 - 1 row	2x6 - 2 rows at 0-9-0 oc.
WEBS 2x4	2400F 2.0E SP No.3 *Excep	t* 4-43,22-10,48-22:2	x6	23-25=-3716/1096, 21- 19-21=-1966/566, 15-1	-23=-5323 19=0/6389	8/615,),		Bottom chords cor staggered at 0-9-0	nected as follow oc, 2x4 - 1 row	/s: 2x6 - 2 rows at 0-9-0 oc.
BRACING	No.2, 4-47,45-1,4	47-10:2x4 SP No.2		14-15=0/6389, 41-42= 39-41=-1851/0, 38-39=	-1851/0, =-4898/0,			2 rows staggered	at 0-9-0 oc.	row at 0-9-0 oc, 2x6 -
TOP CHORD 2-0- vert	-0 oc purlins (5-1- ticals	-14 max.), except end	b	35-38=-5894/0, 33-35= 31-33=-3077/1821, 30	=-5894/0, -31=-3077	7/1821,	2)	All loads are consi except if noted as	front (F) or back	(B) face in the LOAD
(Sw BOT CHORD Rigi	vitched from shee id ceiling directly	eted: Spacing > 2-8-0) applied or 5-5-4 oc		26-30=-3077/1821, 26 24-26=-458/5645, 22-2	-∠o=-458/3 24=0/1078	0040, 9, 7 49, 0/0500		CASE(S) section. provided to distrib	riy to ply connect ute only loads no	oted as (F) or (B),
JOINTS 1 Br	cing. race at Jt(s): 5,		WEBS	20-22=0/9742, 18-20= 2-45=-1032/107, 2-43=	0/3522, 17 =-284/576,	/-18=0/3522	3)	Unbalanced roof li	ndicated. ive loads have be	een considered for
9, 3 28, 3	86, 1, 20, 39, 24, 33, 48, 49, 50,			$-\frac{1}{12}$	=-1265/51	4,		แทร นธรญป.		
51 REACTIONS (size)) 14= Mech	anical, 23=0-5-8,		49-51=-2850/1141, 50	-51=-2941 -0/5502	/987,				
Max I	46=0-5-8 Horiz 46=-351 (I	LC 15)		17-19=-3949/0, 40-42=	=0/3302, =0/2272, 1	8-19=-326/0	,			
Max I Max (Uplift 23=-182 (Grav 14=3628 (LC 15), 46=-9 (LC 14) (LC 47), 23=3592 (LC	1	20-21=-313/0, 19-20=0 20-21=-3287/87, 37-39 27 28= 210/10, 26 27-)=-5/1450, - 816/250	, ,	,		WH CA	ROUL
FORCES (Ib)	39), 46=4 - Maximum Com	717 (LC 37) pression/Maximum		24-25=0/4042, 34-36= 25-26=-503/0 24 25	-315/405, 273/0 25	-282617/0		and a start	ORTEFSE	D. IN. II.
TOP CHORD 1-2=	ision =-6220/8 2-4=-6	373/0. 4-5=-3017/138		23-20=-303/0, 34-35=- 33-34=0/1448, 28-29= 31-32=0/205_20_20=	≥73/0, 25 0/3812, 32 27/0	2-33=-2203/0),	a	the 1	the second
5-6= 7-8=	=-2804/86, 6-7=-{ =-5632/741 8-9=	5632/741, 2443/151.	,	22-48=-295/2166, 10-4 22-231621/522, 23-5	18=-125/22 042062#	215, 0			SFA	L
9-10 11-1	0=-2762/185, 10- 13=-6245/0_13-1	4=-7328/0		22-23=-1621/323, 23-2 21-22=0/1802, 11-48=	-369/425,	Ο,			0363	22
1-46	6=-4610/77	,		7-51=-385/141, 6-49=- 6-51=-137/832 8-51-	2540/571, 121/07/	,				
			NOTEC	8-50=-2717/555	121/314,			115	A MGIN	EEF
			NUTES						11, A. G	ILBEIT
									11111	Um.



July 2,2024

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 from Truss Plate Institute (www.tpinst.org) and RCSI Building Component Safety Information, available from the Structural Building Component Association (www.shearonponent Scom) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A08	Attic	1	2	I66625041 Job Reference (optional)

- Wind: ASCE 7-16; Vult=130mph (3-second gust) 4) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-5-14, Interior (1) 5-5-14 to 10-1-6, Exterior(2R) 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;C-C for members and forces & MWFRS for reactions shown; 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
- 6) Unbalanced snow loads have been considered for this design.
- 7) Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated. 8)
- All plates are 4x5 MT20 unless otherwise indicated. 9)
- 10) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 12) Ceiling dead load (5.0 psf) on member(s). 4-49, 49-51, 50-51, 10-50, 11-48; Wall dead load (5.0psf) on member (s).4-42, 22-48, 10-48
- 13) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 41-42, 39-41, 38-39, 36-38, 35-36, 33-35, 31-33, 30-31, 28-30, 26-28, 24-26, 22-24
- 14) Refer to girder(s) for truss to truss connections.
- 15) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at it(s) 46 and 23. 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.
- 17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 18) 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. Tue Jul 02 09:59:59 ID:h5TFO2tlZyfWTvVspKto8_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 PCB Building Component Science Michael Component Advancement description (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

						1	-	1				
Job		Truss		Truss Type		Qty	Ply	175 S	erenity-Roof	-B326 I	B CP TMB BNS (GLH
24060145-0	1	A09		Attic		4	1		- f	1		166625042
Carter Compose	nte (Sonford NC) Sonfor-	NC - 27332		Run: 0.72 C lun 40.4	024 Brints (730 9 100 47		ererence (op	uonal)		Page: 1
Carter Componer	nis (Sanioru, NC), Sanior	1, INC - 27332,		ID:h5TFO2tlZyfWTvV	spKto8 zR	Qij-RfC?PsB7	0Hq3NS	αPanL8w3uIT>	s, inc. ru KbGKWr	CDoi7J4zJC?f	Fage. 1
		_		17.0.0	·	32-1	10-3					
	I	8-4-4	16-2-4	<u>17-8-021-2-6</u>	24-7-0 27-11-10 3	31-6-0	37-7-4	l 	45-2-2		<u>53-5-8</u> 8-3-6	
		0-4-4	7-10-0	5x6=	5-4-10 5-4-10	3-0-0 1-2	4-3 4-9-1 6x8⊾		7-0-14		8-3-0	
				4x8 ≠	3x5= 2x4 u 3x5=	= 5x6	=					
т				5	6 59 760 8	9	10					
				4x6 = 4								
			6	TT 49	47 51	50		< 11	4x6👟			
			25758	5x6 II	3x6=	5x6 I		\geq	61262			
Ģ			56		4		48 6988 II		63			
1-8		55			, , ,					1	3	
	5x8 =				0		P	×		×	64	
												oT
-10-						a a						
, ⊥	46			······································	36 35 33 31 30	28-26 24	8720 1	17		8		Tör te
r	MT18HS 10x12	II	45 65 6x10=	44 43 40 37 5x6= 5x8= 4x	34 32 29 3= 4x8= 2x4	2725 6x10=	22221 19	9 16 66 10 -	5	15 2x4	1	5x8=
			0.10-	10x12= 3x5=	$5x10 = 3x5 = 2x4 \parallel$	2x4 II	8x10= 0x1	12x16=		24-	T II	
				2x4 II 2x	4 u 2x4 u 4x8=	= 4x	B= 2x	4 u				
				17.0.40	2	4x8= ;	33-5-0	37-7-4				
				16-5-0 20-7-4	23-4-12 26-2-4 29-1	34x8≞123 -031-10-	3-0-0 8 34-8-0 37	37-6-8 7-5-8				
	H	8-4-4	13-10-0		2-0-0 24-9-8 27-8-42	9-9-0 32- +++	9-4 36-0-1	2	45-2-2	+	53-5-8	
Scale - 1:00 6		8-4-4	5-5-12	2-4-4 1-4-12 0-2-12 1-	2 1-4-12 1-4-12 1-4- 4-12 1-4-12 1-6-0 0	12 1-4-12)-8-0 0-1	2 1-3-0 1- 0-12 1-4-12	4-12 2	7-6-14		8-3-6	
Plate Offsets ()	X, Y): [1:Edge	9,0-2-4],	[5:0-3-0,0-2-0], [9:0-3	<u>1-4-12</u> -0,0-2-0], [1 4 :≝etb2e,0-	0-5], [16:0-8-0,0-5-0], [2	0-8-12-0 22:0-4-8,0-	-2-12 A-810[29:0-3	0-1-0	0], [36:0-2-12	2,0-3-0], [45:0-3-8,0-3-0], [50:0-3-0,0-2-4]
	, , լ					,-	0.9101	0-0-12	-], [,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Loading		(psf)	Spacing	2-0-0		DEF	L	in (l	oc) l/defl	L/d	PLATES	GRIP
Snow (Pf)		20.0	Lumber DOL	1.15	BC 0	.85 Ven	.(LL) -0. :(CT) -0.	.44 .68 38	38 >898 -39 >578	240 180	MT18HS	244/190
TCDL		10.0	Rep Stress Incr	YES	WB 0	.85 Hor	z(CT) 0.	.11	14 n/a	n/a		
BCLL		0.0*	Code	IRC2018/TPI2014	Matrix-MSH	Attic	-0.	29 22	-42 >697	360		FT 000/
BCDL		10.0									vveight: 498 lb	FT = 20%
			*	BOT CHORD	45-46=-108/227, 43-45	5=-38/337	2,	2)	Wind: ASCI	E 7-16;	Vult=130mph (3	-second gust)
BOT CHORD	2x6 SP No.2 2x6 SP 2400	*Except * F 2.0E	* 5-9:2x4 SP No.2 Except* 46-44:2x6 SF	5	40-43=0/3376, 37-40= 32-34=0/5834, 29-32=	0/5176, 34	4-37=0/6303	5,	II; Exp B; E	nclosed	d; MWFRS (enve	lope) exterior zone
	No.2, 42-36:	2x4 SP 1	No.2, 36-17:2x4 SP		25-29=-876/2735, 23-2	25=-2730/	415,		and C-C Ex	terior(2	2E) 0-1-12 to 5-5	-14, Interior (1) 5-5-14
WEBS	2400F 2.0E	*Excent	* 1-13 22-10 18-22.2	/ 6	21-23=-3655/150, 19-2 15-19=0/4024 14-15=	21=-1454/ 0/4024 4	234, 1-42=-1155/	0	to 10-1-6, E 39-0-10 to 4	xterior	(2R) 10-1-6 to 39 Exterior(2E) 48-)-0-10, Interior (1) 1-6 to 53-5-8 zone:C-
WEBS	SP No.2,	слоери	. 4-43,22-10,40-22.27		39-41=-1155/0, 38-39=	=-3006/0,		0,	C for memb	pers and	d forces & MWFF	RS for reactions
	4-47,45-1,19	-17,40-4	2,19-20,40-39,21-20,	37-	35-38=-3567/55, 33-3	5=-3567/5	5, 2/1307		shown; Lun	nber DO	DL=1.60 plate gri	ip DOL=1.60
	39,37-36,25- 33,47-10:2x4	24,34-30 I SP No.	0,20-28,34-33,29-28,3 2	52-	28-30=-1692/1397, 26	-28=-36/3	923,	3)	TCLL: ASC	E 7-16	; Pr=20.0 psf (roo	of LL: Lum DOL=1.15
BRACING	, -				24-26=-36/3923, 22-24	4=0/7084,	7 4 0 0/0000	, , , , , , , , , , , , , , , , , , ,	Plate DOL=	1.15);	Pf=20.0 psf (Lum	DOL=1.15 Plate
TOP CHORD	Structural wo	ood shea	athing directly applied	or WEBS	20-22=0/6375, 18-20= 2-45=-641/77, 2-43=-1	87/355.4	7-18=0/2308 2-43=0/389.	5	DOL=1.15) Cs=1.00: C	; is=1.0 t=1.10	; Rough Cat B; F	-ully Exp.; Ce=0.9;
	2-0-0 oc pur	lins (2-1	1-1 max.): 5-9.	unu	4-42=0/1181, 16-17=0	/814, 11-1	7=-453/77,	4)	Unbalanced	d snow	loads have been	considered for this
BOT CHORD	Rigid ceiling	directly	applied or 3-1-9 oc		13-16=-826/296, 13-15 4-49=-2286/48, 49-51	5=0/312, =-1784/72	9.	5)	design. 200.0lb AC	unit loa	ad placed on the	bottom chord. 36-1-8
WEBS	1 Row at mic	dpt 2	2-43, 11-16, 13-16		50-51=-1850/620, 10-	50=-2524/	43,	Ξ,	from left en	d, supp	orted at two poir	nts, 5-0-0 apart.
WEBS	2 Rows at 1/	3 pts	4-51, 10-51		1-45=0/3442, 17-19=-2 18-19=-213/0 40-41	2617/0, 40 199/0 19)-42=0/1409 -20=0/2595	, 6) 7)	Provide ade	equate	drainage to prev	ent water ponding.
JOINTS	1 Brace at Ji 20, 39 24 2	t(s): 36, 8, 33			39-40=-1254/36, 20-2	1=-2143/0	_0_0/2000, ,	8)	All plates a	re 2x4 I	MT20 unless othe	erwise indicated.
	48, 51	, 00,			37-39=-42/875, 37-38=	=-137/4,		9)	This truss h	as bee	n designed for a	10.0 psf bottom
REACTIONS	(size) 14	H= Mecha	anical, 23=0-5-8,		34-36=-244/212, 25-26	5=-346/0,				Jau nor		any puter live loads.
	46 Max Horiz 46	ວ=ບ-ວ-୪ ວ=-222 (L	_C 15)		34-35=-176/0, 25-28=-	2337/0, 3	3-34=0/973,			Nº N	ATHUA	7901.
	Max Uplift 46	6=-26 (LC	C 14)		28-29=0/2473, 32-33= 29-30=-528/0. 22-48=	-1454/0, 3 231/1315	o1-32=0/138 ,	,		No.	O'.FESS	Oile
	Max Grav 14	l=2283 (LC 47), 23=2502 (LC		10-48=-121/1350, 22-2	23=-1158/	183,		6	25		Then
FORCES	(lb) - Maximi	um Com	pression/Maximum		23-24=-1793/0, 21-22= 11-48=-265/219 5-49-	=0/1191, =-65/758						
	Tension				9-50=-58/868, 7-51=-2	243/88,			Ξ	:	SEA	L : E
I OP CHORD	1-2=-3893/3	3, 2-4=-3 9 6-7=-9	3980/21, 4-5=-1888/10 3529/497	J2,	6-49=-1597/368, 6-51=	=-95/520,			Ξ		0363	22 <u>:</u> E
	7-8=-3529/4	97, 8-9=·	-1504/139,	NOTES	0 01-00/021, 0-00=-1	120/042			-			1 3
	9-10=-1712/	155, 10-	11=-3940/68, 144616/0	1) Unbalance	I roof live loads have b	een consid	dered for			3.6	N.ENO.	ERIA S
	1-46=-2886/	, 10, 13- 68	1 7 –-4010/0,	this design.						14	ROGIN	EFRIN
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July 2,2024



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

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	A09	Attic	4	1	I66625042 Job Reference (optional)

- 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.
- Ceiling dead load (5.0 psf) on member(s). 4-49, 49-51, 50-51, 10-50, 11-48; Wall dead load (5.0psf) on member (s).4-42, 22-48, 10-48
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 41-42, 39-41, 38-39, 36-38, 35-36, 33-35, 31-33, 30-31, 28-30, 26-28, 24-26, 22-24
- 13) Refer to girder(s) for truss to truss connections.14) One H2.5A Simpson Strong-Tie connectors
- (c) the P2.5A simple of storing recommended to connect truss to bearing walls due to UPLIFT at jt(s) 46. 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.
- 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. Tue Jul 02 10:00:00 ID:h5TFO2tlZyfWTvVspKto8_zRQij-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

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)

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JOD		I russ		russ Type			Qty	Ру	175 Serer	nty-Roof	-B326 E	S CP TMB BN	S GLH 166625043
24060145-0)1	A10		Attic Supported	Gable		1	1	Job Refer	ence (op	tional)		
Carter Compone	ents (Sanford, NC	c), Sanford	1, NC - 27332,		Run: 8	3.73 S Jun 13 20	24 Print: 8.	730 S Jun 13	3 2024 MiTek	Industries	s, Inc. Tu	e Jul 02 10:00:0	1 Page: 1
					ID:8kd	InaNVfrXy7X5iJo	vJ26tzRBB	2-RfC?PsB7	0Hq3NSgPqr	L8w3ulT	xbGKWr	CDoi7J4zJC?f	
	. ·		· • • •	18-7-0 17-8-0 20 7	22-7-0	26-7-0	30-7-0 3	2-8-7 -0				0	
I	8-4- 8-4-	-4 -4	<u> </u>	1-4-12 2-0-0	24-7	-0 2-0-0 2-0-0	2-0-0				<u>53-5</u> 20-9	<u>ו-8</u> ו-1	
				0-11-0 10x12 ¢	0		0-11 1	-0 -2678⊳			0		
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3	x5 6 9 68	3 67	66 65 64	63 6 80 59	56 55	52 50 49 4	846 45	43 41	40 39 3	8 37	36	35 34	33 32
				4x6= 18-7-0		4x6=	-3x6=		4x6=				4x5=
	8-4-	-4	15-10-0	16-5-0 16-3-4 20-7-	22-7-0 0 24-7	26-7-028-7 -027-7-8	-0 ⁻¹⁰ 32- 30-7-0	6-8 32-8-4 37	-6-8			53-5-8	
1	8-4-	-4	7-5-12	0-5-4 2-0-0	2-0-0 2-0-	-0'2-0-0	2-0-01-1	1-8 4-	10-4			15-11-0	
Scale = 1:90.9				0-1-12 2-2-0		0-11	-8	0-1-12					
Plate Offsets (X, Y): [8:0-2-2	2,0-2-0],	[11:0-9-0,0-3-0], [14:0)-8-0,0-7-4], [19:0-9-	0,0-3-0], [20):0-1-14,0-2-12	.] 						
Loading		(psf)	Spacing	2-0-0	CSI		DEFL		in (loc)	l/defl	L/d	PLATES	GRIP
Snow (Pf)		20.0 20.0	Lumber DOL	1.15	BC	0.4	7 Vert()	LL) TL)	n/a - n/a -	n/a n/a	999 999	MT20	244/190
TCDL		10.0	Rep Stress Incr	YES	WB	0.4	2 Horiz	(TL) 0	.01 31	n/a	n/a		
BCDL		0.0 ^ 10.0	Code	IRC2018/1PI2014	Matrix-	MSH						Weight: 502	lb FT = 20%
					Max Unlift	31=-50 (LC 1	4) 32=-9'	1 (I C 15)	TOP C	HORD	1-70=-	81/30 1-2=-5	6/35 2-3=-62/70
TOP CHORD	2x6 SP No.2	2				33=-28 (LC 1	5), 34=-47	7 (LC 15),			3-4=-7	3/107, 4-5=-8	5/140, 5-6=-97/180,
BOT CHORD	2x6 SP No.2 No.2	*Except	* 60-46,46-43:2x4 SF	,		35=-43 (LC 1) 37=-44 (LC 1)	5), 36=-44 5), 38=-46	4 (LC 15), 6 (LC 15),			10-11=	=-2031/599, 1	131/263, 9-10=-129/281, 1-12=-1938/579,
WEBS	2x4 SP No.3	*Except	* 10-61:2x4 SP No.2			40=-37 (LC 1)	5), 42=-15	57 (LC 10), 10 (LC 44)	,		12-13=	1938/579, 13 1934/578, 14	3-14=-1938/579, 5-161934/578
OTHERS	2x4 SP No.3	.2X0 GF .	2400F 2.0E			64=-43 (LC 1	4), 65=-46	6 (LC 14),	,		16-17=	=-1934/578, 17	7-18=-1934/578,
	Structurel	and abor	thing directly applied	or		66=-43 (LC 1- 68=-38 (LC 1-	4), 67=-44 4), 69=-72	4 (LC 14), 2 (LC 14),			18-19= 20-21=	=-1934/578, 19 =-134/316, 21-	9-20=-2022/599, -22=-135/305,
TOP CHORD	4-8-12 oc pu	urlins, ex	cept end verticals, ar	nd	May 0	70=-25 (LC 1	5), 80=-50) (LC 14)			22-23=	=-122/282, 23-	-25=-106/258,
	2-0-0 oc pur	lins (4-5-	12 max.): 11-19.		Max Grav	31=166 (LC 2 33=142 (LC 6	28), 32=26 6), 34=176	53 (LC 53), 5 (LC 53),			25-26=	=-94/235, 26-2 =-111/188, 28-	-29=-133/165,
DOT ONORD	bracing, Ex	cept:				35=169 (LC 6	6), 36=178	B (LC 39),			29-30=	=-161/141, 30-	-31=-205/135
	6-0-0 oc bra 58-60,56-58	cing: ,54-56,5	2-54,50-52,48-50,44-	48,		40=212 (LC 4	l5), 41=19	91 (LC 53),					
WERS	43-44.	dot	10 61 20 42 21 44			42=842 (LC 4 47=232 (LC 2	10), 45=26 20), 51=24	58 (LC 20), 12 (LC 20).					
WEB3	I ROW at MI	upt	10-01, 20-42, 21-41, 22-40, 9-63, 7-64			53=239 (LC 2	20), 55=24	14 (LC 20),					
JOINTS	1 Brace at J	t(s): 71, 76 77				61=859 (LC 2	:0), 59=28 10), 63=18	55 (LC 20), 39 (LC 51),					
REACTIONS	(size) 3	1=53-5-8	, 32=53-5-8, 33=53-5	-8,		64=222 (LC 4	(3), 65=23	87 (LC 43),					LTD
	34	4=53-5-8 7-53-5-8	, 35=53-5-8, 36=53-5	-8, -8		68=170 (LC 5	5), 69=202	2 (LC 51),				C	AD
	4	1=53-5-8	, 42=53-5-8, 45=53-5	-8, EORCES	(lb) Max	70=114 (LC 2	21), 80=16 ssion/Max	6 (LC 28)			J.	RTH	Ling
	47	7=53-5-8 5=53-5-8	, 51=53-5-8, 53=53-5 , 57=53-5-8, 59=53-5	-8.	Tension	amum Compre	551011/11/10/	amum			5-	OFES	The state
	6	1=53-5-8	, 63=53-5-8, 64=53-5	-8,							D	187 -	A H
	65 68	5=53-5-8 3=53-5-8	, 66=53-5-8, 67=53-5 , 69=53-5-8, 70=53-5	-ၓ, -8,								SF	AL E
	80 Max = = = = = = = = = = = = = = = = =)=53-5-8	0.45)							E		036	322
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Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/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.shearonponent Scom) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

RENCO

818 Soundside Road Edenton, NC 27932

July 2,2024

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GI	_H		
24060145-01	A10	Attic Supported Gable	1	1	Job Reference (optional)	166625043		
Carter Components (Sanford, NC), Sanford, NC - 27332.	Run: 8.73 S. Jun 13 2024 Print: 8.730 S. Jun 13 2024 MiTek Industries. Inc. Tue Jul 02 10:00:01						

ID:8kdnaNVfrXy7X5iJovJ26tzRBB2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

BOT CHORD	69-70=-100/208, 68-69=-100/208, 67-68=-100/208, 66-67=-100/208, 65-66=-100/208, 64-65=-100/208, 63-64=-100/208, 61-63=-100/208, 59-61=-98/204, 57-59=-98/204, 55-57=-98/204, 53-55=-98/204, 51-53=-98/204, 47-51=-98/204, 45-47=-98/204
	$\begin{array}{l} 31-42=-98/206, \ 40-41=-98/206, \\ 38-40=-98/206, \ 37-38=-98/206, \\ 36-37=-98/206, \ 35-36=-98/206, \\ 34-35=-98/206, \ 33-34=-98/206, \\ 32-33=-98/206, \ 31-32=-98/206, \\ 58-60=-4/4, \\ 56-58=-4/4, \ 54-56=-4/4, \\ 56-58=-4/4, \ 54-56=-4/4, \\ 50-52=-4/4, \ 48-50=-4/4, \\ 44-48=-4/4 \end{array}$
	43-44=-4/4
WEBS	$\begin{array}{l} 5-66=-191/68,\ 60-61=-816/147,\\ 10-60=-798/158,\ 42-43=-803/180,\\ 20-43=-787/190,\ 10-79=-393/1707,\\ 71-79=-454/1914,\ 71-72=-454/1914,\\ 72-74=-454/1914,\ 71-72=-453/1910,\\ 75-76=-453/1910,\ 76-77=-453/1910,\\ 77-78=-453/1910,\ 20-78=-388/1687,\\ 21-41=-141/37,\ 22-40=-171/62,\\ 23-38=-192/70,\ 25-37=-179/68,\\ 26-36=-130/68,\ 27-35=-126/68,\\ 28-34=-129/69,\ 29-33=-112/60,\\ 30-32=-174/94,\ 9-63=-146/47,\ 7-64=-181/67,\\ 6-65=-197/70,\ 4-67=-143/67,\ 3-68=-125/64,\\ 2-69=-139/89,\ 12-71=-419/117,\\ 13-72=-92/26,\ 14-73=-91/30,\ 15-74=-119/33,\\ 16-75=-104/29,\ 17-76=-78/24,\\ 18-77=-428/119,\ 19-78=-302/996,\\ \end{array}$
	11-79=-297/1007, 58-59=-150/0, 56-57=-111/0, 54-55=-122/0, 52-53=-119/0,
NOTEO	50-51=-122/0, 47-48=-114/0, 44-45=-141/0
NULES	

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 70. 50 lb uplift at joint 31, 43 lb uplift at joint 66, 121 lb uplift at joint 61, 157 lb uplift at joint 42, 37 lb uplift at joint 40, 46 lb uplift at joint 38, 44 lb uplift at joint 37, 44 Ib uplift at joint 36, 43 lb uplift at joint 35, 47 lb uplift at joint 34, 28 lb uplift at joint 33, 91 lb uplift at joint 32, 10 Ib uplift at joint 63, 43 lb uplift at joint 64, 46 lb uplift at joint 65, 44 lb uplift at joint 67, 38 lb uplift at joint 68, 72 Ib uplift at joint 69 and 50 lb uplift at joint 31. 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

NC

- Unbalanced roof live loads have been considered for 1) this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-5-14, Interior (1) 5-5-14 to 10-1-6, Exterior(2R) 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;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 4) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated. 7)
- Gable requires continuous bottom chord bearing. 8)
- Gable studs spaced at 2-0-0 oc. 9)
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 12) Ceiling dead load (5.0 psf) on member(s). 10-79, 71-79, 71-72, 72-73, 73-74, 74-75, 75-76, 76-77, 77-78, 20-78; Wall dead load (5.0psf) on member(s).60-61, 10-60, 42-43, 20-43

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design and the second design much reacting of design and the second design much reacting and and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	B01	Common	1	1	I66625044 Job Reference (optional)

TCDL

BCLL

BCDL

WFBS

WEBS

1)

2)

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Tue Jul 02 10:00:02 ID:Nseaq6A9EjNfxKX1O6yXnly7LSU-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 bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	B02	Common Girder	1	2	I66625045 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:02 ID:iFFKd9_s5HOVK9vBFwqTAGzRAMn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



<u>Scale = 1:73</u> Plate Offsets (X, Y): [3:0-1-4,0-1-8], [11:0-8-0,0-7-8], [13:0-8-0,0-3-0]

				-										
Loading TCLL (roof) Snow (Pf) TCDL	(psf) 20.0 20.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 NO		CSI TC BC WB	0.43 0.42 0.82	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.09 -0.19 0.02	(loc) 12-13 12-13 9	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190	
BCLL BCDL	0.0* 10.0	Code	IRC2018	/TPI2014	Matrix-MSH							Weight: 480 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) 2-ply truss (0.131"x3' Top chord staggered Bottom ch staggered Web conn Except me 3-12 2x4 -	2x6 SP No.2 2x10 SP 2400F 2.0E 2x4 SP No.2 Left: 2x4 SP No.3 Structural wood she 4-3-13 oc purlins. Rigid ceiling directly bracing. 1 Row at midpt (size) 1=0-5-8, 7 Max Horiz 1=227 (LC Max Uplift 7=-431 (L Max Grav 1=227 (LC Max Uplift 7=-431 (L 9=12514 (lb) - Maximum Com Tension 1-2=-11367/0, 2-3=- 4-5=-5130/0, 5-6=-3 1-13=0/8590, 12-13 9-11=0/1889, 8-9=-2 2-13=0/3860, 2-12= 3-11=-5443/0, 4-11= 5-9=-7519/0, 6-9=-2 st ob e connected toge 1) nails as follows: s connected as follows: at 0-9-0 oc. ected as follows: 2x4 - ember 2-13 2x4 - 1 row 1 row at 0-6-0 oc.	athing directly applie applied or 6-0-0 oc 3-11, 5-9 7=0-7-12, 9=0-5-8 C 11) C 12) LC 5), 7=712 (LC 19) (LC 6) pression/Maximum 8527/0, 3-4=-5186/0, 5/255, 6-7=-84/627 =0/8590, 11-12=0/65 238/0, 7-8=-405/0 -2924/0, 3-12=0/6703 e0/6182, 5-11=0/4434 60/534, 6-8=-767/0 ther with 10d s: 2x6 - 2 rows ows: 2x10 - 4 rows - 1 row at 0-9-0 oc, v at 0-2-0 oc, membe	2) 3) d or 4) 5) , 6) , 7) 48, 8) 3, 4, 9) 10) 11) r	All loads are except if note CASE(5) sec provided to d unless other Unbalanced 1 this design. Wind: ASCE Vasd=103mp II; Exp B; Enc cantilever left right exposed TCLL: ASCE Plate DOL=1 DOL=1.15; I CS=1.00; Ct Unbalanced design. This truss ha chord live loa * This truss ha on the botton 3-06-00 tall b chord and an One H2:5A S recommende UPLIFT at jt(does not con This truss is International R802.10.2 ar Use Simpsor 16-10d Truss connect truss	considered equall ad as front (F) or b titon. Ply to ply cor istribute only loads wise indicated. roof live loads hav 7-16; Vult=130mp bh; TCDL=6.0psf; I closed; MWFRS (e t and right exposed d; Lumber DOL=1. 7-16; Pr=20.0 psf (15); Pf=20.0 psf (1	y applie ack (B) innection s noted e been of h (3-sec 3CDL=6 anvelope d; end v 60 plate (roof LL Lum DC B; Fully been cor or a 10.0 vith any for a liv s where a conne- to bear on is for dance w sections dard AN S210-2 (4-0-12 for bottor	d to all plies, face in the LO sonsidered for considered for considered for cond gust) .0psf; h=25ft; e) exterior zon rertical left am grip DOL=1.6 .: Lum DOL=1 bL=1.15 Plate Exp.; Ce=0.9 asidered for th D psf bottom other live load e load of 20.0 a rectangle ween the botto DL = 10.0psf. ctors ing walls due uplift only an ith the 2018 r R502.11.1 ai ISI/TPI 1. 46-10d Girder rom the left er n chord.	DAD r Cat. le; d 60 I.15 l; his ds. lpsf om to ld r, nd to nd to	 12) Use spa end cho 13) Use 26- max con 14- spa end bott 15) Use 26- left cho 16) Use 14- left cho 	e Simpsc 10dx1 1/ ced at 2 to 10-0- rd. e Simpsc 10dx1 1/ ced at 1 to 15-10 om chor e Simpsc 10dx1 1/ ced at 1 end to c rd. e Simpsc 10dx1 1/ end to c rd.	on Stro 2 Trus 0-0 oc 2 Trus 2 Trus 2 Trus 2 Trus 2 Trus 0-8 to 0-8 to 0-8 to 0-8 to 0-8 to 0-8 to 0-8 to 0-8 to 0-10-8 to 0-10-10-10-10-10-10-10-10-10-10-10-10-10	ng-Tie HTU28 (2 is, Single Ply Gir is, Single Ply Gir is, Single Ply Gir is, Single Ply Gir is) or equivalent 2-0-0 from the lef to back face of b ing-Tie HTU28 (2 is, Single Ply Gir ic connect truss(es) or equivalent it truss(es) to bac ing-Tie HTU28 (1 is) or equivalent it truss(es) to bac ing-Tie HTU26 (1 is) or equivalent it truss(es) to bac SEA 0363	0-16d Girder, jer) or equivale 6-0-0 from the o back face of 0-16d Girder, spaced at 9-10 iend to 21-10-5 bitom chord. 0-10d Girder, jer) or equivale it 14-0-0 from th to back face of 0-10d Girder, at 17-10-8 from k face of botton 0-16d Girder, at 19-10-8 from k face of botton 0-16d Girder, at 29-10-8 from k face of botton 0-16d Girder, at 19-10-8 from k face of botton 0-16d Girder, 0-16d Girder,	ent left bottom -8 oc 8 to ent he left n n the n
												Ju	ly 2,2024	

Continued on page 2 WARNING - Verify

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and property incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent ouclings with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSE2** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbaccomponents.com)

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	B02	Common Girder	1	2	I66625045 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:02 ID:iFFKd9_s5HOVK9vBFwqTAGzRAMn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

17) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

 Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (lb/ft)

Vert: 1-4=-60, 4-7=-60, 14-17=-20

Concentrated Loads (lb)

Vert: 10=-1932 (B), 13=-3478 (B), 12=-2198 (B), 8=-856 (B), 22=-2198 (B), 23=-2198 (B), 24=-1932 (B), 25=-1932 (B), 26=-856 (B), 27=-1006 (B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTP11 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	B03	Common Supported Gable	1	1	Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:02 ID:onyrICEMWITAUsFxYbXALJy7LR6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

July 2,2024 818 Soundside Road Edenton, NC 27932



Scale = 1:67.9

Plate Offsets (X	, Y):	[10:0-2-8,Edge]
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Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	1-11-4 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MR	0.25 0.23 0.16	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.05 0.04 0.00	(loc) 22-23 22-23 21	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 188 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood sh 6-0-0 oc purlins, e Rigid ceiling direct bracing.	eathing directly applie except end verticals. ly applied or 10-0-0 oc	BC d or W	OT CHORD 3 3 2 2 2 2 2 2 2 8 8 8 8 8 8 8 8 8 8 8	44-35=-71/147, 33 12-33=-71/147, 31 10-31=-71/147, 29 18-29=-71/147, 27 15-27=-71/147, 22 13-24=-71/147, 22 1-22=-71/147, 22 1-22=-71/147, 22 1-22=-264/98, 11-1 1-30=-152/162, 6-1 5-32=-142/96, 4-3 1-2	-34=-71/ -32=-71/ -30=-71/ -28=-71/ -25=-71/ -23=-71/ -21=-71/ 31=-169/ 3=-151/	(147, (147, (147, (147, (147, (147, (147, (147, 104, (114, (114, 25, 3:34=-135/1	154,	 All p Trus brac 9) Gab 10) This cho 11) * Th on t 3-00 cho 	blates ar ss to be ced agai ble studs s truss h rd live lo he botto 6-00 tall rd and a	e 2x4 l fully sh nst late space as bee ad nor has be m cho by 2-0 ny oth	MT20 unless othe eathed from one eral movement (i. d at 2-0-0 oc. n designed for a acconcurrent with en designed for d in all areas wh 0-00 wide will fit I er members, with	 arwise indicated. arwise indicated. face or securely e. diagonal web). 10.0 psf bottom any other live loads. a live load of 20.0psf are a rectangle between the bottom b CDL = 10.0psf.
WEBS REACTIONS	1 Row at midpt (size) 21=0-3- 27=17-6 30=17-6 33=17-6 Max Horiz 35=-262 Max Uplift 21=-11 25=-2 (L 28=-18 30=-113 32=-76 34=-200 Max Grav 21=320 25=111 28=252 30=172 32=197 34=228	9-29, 11-28, 8-30, 1 8, 24=17-6-0, 25=17-6 -0, 28=17-6-0, 29=17- -0, 31=17-6-0, 32=17- -0, 34=17-6-0, 32=17- -0, 34=17-6-0, 35=17- -1, 24=-249 (LC C 14), 27=-169 (LC 1: (LC 14), 31=-85 (LC (LC 14), 31=-85 (LC (LC 14), 33=-53 (LC 1: (LC 14), 35=-194 (LC (LC 2), 27=213 (LC 2: (LC 2), 27=213 (LC 2: (LC 15), 29=254 (LC (LC 2), 31=211 (LC 2: (LC 2), 33=193 (LC 2: (LC 2), 35=336 (LC 2: (LC 3), 35=3	2-27 i-0, N(6-0, 1) 6-0 2) 15), 5), 5), 3), 14), 4), (10) 3), 22), 15), 3) 22), 3), 22), 3) 25), 26)	1 This design. Wind: ASCE Vasd=103mp II; Exp B; Enc and C-C Corr to 8-7-0, Corr to 8-7-0, Corr to 21-0-8, Co left and right exposed; por and forces & DOL=1.60 pt Truss design only. For stu see Standard	2-27=-16/7176, 1 5-24=-252/192, 1 roof live loads hav 7-16; Vult=130mp wh; TCDL=6.0psf; closed; MWFRS (ner(3E) -0-10-8 to ner(3E) 21-0-8 to exposed; end ve ch left and right e MWFRS for reaci ate grip DOL=1.6(ned for wind loads ds exposed to wint l Industry Gable E	4-25=-1: 6-23=-7: we been of bh (3-sec BCDL=6 envelope 2-1-8, E 4-7-0, E 24-0-8 rtical left xposed;(ions sho) in in the pind (norm ind Deta	32/78, 3/70, 17-22=-8 considered for cond gust) .0psf; h=25ft; (a) exterior zone ixterior(2N) 2-1 xterior(2N) 2-1 xterior(2N) 14-ve zone; cantieve and right C-C for member wm; Lumber lane of the trus al to the face), ils as applicable	6/56 Cat. e I-8 7-0 er Par ers ss le,	 12) One H2.5A Simpson Strong-Tie connectors 12) One H2.5A Simpson Strong-Tie connectors 12) recommended to connect truss to bearing walls due t 12) UPLIFT at jt(s) 35, 29, 28, 30, 31, 32, 33, 34, 27, 25, 24. This connection is for uplift only and does not consider lateral forces. 13) H10A Simpson Strong-Tie connectors recommended connect truss to bearing walls due to UPLIFT at jt(s) 35. 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 ar R802.10.2 and referenced standard ANSI/TPI 1. 				
FORCES TOP CHORD	(lb) - Maximum Co Tension 2-35=-262/156, 1- 3-4=-208/179, 4-5 6-8=-180/263, 8-9 10-11=-148/210, 1 12-14=-174/257, 1 15-16=-81/65, 16- 17-18=-173/47, 18	mpression/Maximum 2=0/38, 2-3=-271/227, -207/179, 5-6=-188/1 -210/375, 9-10=-150/ 1-12=-212/377, 4-15=-167/203, 17=-137/48, -19=0/38, 18-20=-188	4) 92, 215, 5) 6) /71	or consult qua TCLL: ASCE Plate DOL=1 DOL=1.15); li Cs=1.00; Ct= Unbalanced s design. This truss has load of 12.0 p overhangs no	 Isult qualified building designer as per ANSI/TPI 1. ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 DOL=1.15; Pf=20.0 psf (Lum DOL=1.15 Plate 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; .00; Ct=1.10 Ianced snow loads have been considered for this n. russ has been designed for greater of min roof live of 12.0 psf or 1.00 times flat roof load of 20.0 psf on nangs non-concurrent with other live loads. 							SEA 0363	EER. KIN

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

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GL	Н
24060145-01	B03	Common Supported Gable	1	1	Job Reference (optional)	166625046
Carter Components (Sanford, NC	c), Sanford, NC - 27332,	Run: 8.73 S Jun 13 2	Page: 2			

ID:onyrICEMWITAUsFxYbXALJy7LR6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	C01	Half Hip	4	1	I66625047 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:02 ID:Je5w06f8goBW?T4xbCQ60Kyfk?K-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Plate Offsets (X, Y):	[2:0-3-1,0-0-1],	[8:0-1-12,0-1-8]											
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.83	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%	

LUMBER											
TOP CHORD	2x4 SP N	0.2									
BOT CHORD	2x4 SP N	0.2									
WEBS	2x4 SP N	o.3 *Except* 7-8:2x4 SP No.2									
OTHERS	2x6 SP N	2x6 SP No.2									
SLIDER	Left 2x4 SP No.3 1-6-0										
BRACING											
TOP CHORD	Structura	l wood sheathing directly applied									
	4-8-11 oc	purlins, except end verticals.									
BOT CHORD	Rigid ceil	ing directly applied or 10-0-0 oc									
	bracing.										
WEBS	1 Row at	midpt 7-8, 6-8									
REACTIONS	(size)	2=0-5-8, 8=0-5-8									
	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	(lb) - Max	imum 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	9/1321, 9-11=-320/1321,									
	8-9=-159/	721									
WEBS	4-11=0/26	63, 4-9=-691/185, 6-9=0/637,									
	6-8=-1026	5/227									

NOTES

Scale = 1:71.3

- 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(2E) 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 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

3) Unbalanced snow loads have been considered for this

design.

or

- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) All plates are 3x5 MT20 unless otherwise indicated.
- 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.
- One H2.5A Simpson Strong-Tie connectors 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.
 Hanger(s) or other connection device(s) shall be
- (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

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



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)



Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	C02	Half Hip	1	1	I66625048 Job Reference (optional)

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:02 ID:EGq646Pbf2EXC6nWIJzpaiyfjwU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:71.3 Plate Offsets (X, Y): [1:0-5-1,Edge], [7:0-1-12,0-1-8]

			-											
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 IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.82 0.63 0.75	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.14 0.03	(loc) 7-8 7-8 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 146 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS SLIDER BRACING TOP CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Wind: AS Vasd=100 I; Exp B; and C-C I 17-4-4, E: members Lumber D 2) TCLL: AS Plate DOI DOL=1.1! Cs=1.00;	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep 2x6 SP No.2 Left 2x4 SP No.3 1 Structural wood shea 4-7-1 oc purlins, exc Rigid ceiling directly bracing. 1 Row at midpt (size) 1=0-3-8, 7 Max Horiz 1=370 (LC Max Uplift 1=-30 (LC Max Uplift 1=-30 (LC Max Grav 1=900 (LC (lb) - Maximum Com Tension 1-3=-1401/30, 3-5=-6 6-7=-265/95 1-10=-405/1286, 8-1 7-8=-159/716 3-10=0/254, 3-8=-65 5-7=-1018/227 CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) 17-4-4 to 20 and forces & MWFRS (en Exterior(2E) 17-4 to 20 and forces & MWFRS (en Exterior(2E) 17-4 to 20	t* 6-7:2x4 SP No.2 I-6-0 athing directly applied cept end verticals. applied or 10-0-0 oc 6-7, 5-7 7=0-5-8 C14) 14), 7=-342 (LC 14) C), 7=1714 (LC 20) pression/Maximum 812/0, 5-6=-162/100, 0=-319/1286, 8/185, 5-8=0/624, (3-second gust) CDL=6.0psf; h=25ft; (velope) exterior zone 2-0, Interior (1) 3-2-0 -4-4 zone; C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1.15 Plate t; Fully Exp.; Ce=0.9;	3) 4) 5) d or 6) 7) 8) 1) LO 1)	Unbalanced design. This truss ha chord live loa * This truss ha on the botton 3-06-00 tall b chord and an One H2.5A S recommende UPLIFT at jt(and does not This truss is - International R802.10.2 ar Hanger(s) or provided suff lb down and design/select responsibility DAD CASE(S) Dead + Snc Increase=1. Uniform Loa Vert: 1-6 Concentrate Vert: 7=-	snow loads have b s been designed for da nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members, simpson Strong-Tie do to connect truss s) 7 and 1. This co consider lateral for designed in accord Residential Code s and referenced stand other connection co cicient to support co 129 lb up at 20-7- tion of such connect of others. Standard bw (balanced): Lum 15 ads (lb/ft) =-60, 7-12=-20 ad Loads (lb) 747	een cor or a 10.0 ith any for a liv is where I fit betw with BC e conne- to bear nnections dard AN device(s oncentra 0 on bo ction de	sidered for the sidered for the sidered for the log of post bottom other live log a load of 20. The side load (side load (si	this ads. .0psf tom .f. e to only and 752 The e Plate				SEA 0363	ROLL 22 E.R. KI	and an

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BC2E Building Component Schut beformation, available from the Structure Building Component Advanciation (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

mmm July 2,2024

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	D01	Common Supported Gable	1	1	I66625049 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:03 ID:8F2D?hHuvW?rb9K6OMb_Y2zRQrE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

July 2,2024

818 Soundside Road Edenton, NC 27932



								3X	(5=						
				L			18-6	-0					_		
Scale = 1:56.9				I									I		
Plate Offsets	(X, Y): [7:0	-2-8,Edge],	[18:0-2-4,0-1-8]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL		(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-(1.15 1.15 YES IRC2) 2018/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	GRIP 244/190	
BCDL		10.0											Weight: 127 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N Structura 6-0-0 oc Rigid ceil	lo.2 lo.2 lo.3 lo.3 l wood she purlins, ex ling directly	athing directly app cept end verticals. applied or 6-0-0 c	blied or	WEBS 6-20=-187/8, 8-19=-183/11, 5-21=-212/1 4-22=-142/94, 3-23=-172/158, 9-17=-214/164, 10-16=-143/90, 11-15=-170/170 NOTES 1) Unbalanced roof live loads have been considered for this design. 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; II: Exp B: Enclosed: MWFRS (envelope) exterior zon					 12) * This truss has been designed for a live load of 20.0p on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the botton chord and any other members. 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at jo 24, 48 lb uplift at joint 14, 114 lb uplift at joint 21, 47 ll uplift at joint 22, 168 lb uplift at joint 23, 117 lb uplift at joint 17, 46 lb uplift at joint 16 and 163 lb uplift at joint 15. 					
REACTIONS	bracing. (size) Max Horiz Max Uplift Max Grav	14=18-6-(17=18-6-(24=18-6-(24=-225 (14=-48 (L 21=-114 (23=-168 (14=190 (L 16=173 (L 19=222 (L 21=252 (L 23=226 (L)	D, 15=18-6-0, 16=' D, 19=18-6-0, 20=' D, 22=18-6-0, 23=' LC 12) C 11), 15=-163 (L C 15), 17=-117 (L LC 14), 22=-47 (L LC 14), 24=-71 (L LC 25), 15=223 (L1 C 22), 15=223 (L1 C 22), 20=227 (L1 C 22), 20=227 (L1 C 21), 22=172 (L1 C 25), 24=206 (L1 C 25), 24=206 (L1 C 25), 24=206 (L1)	18-6-0, 18-6-0, 18-6-0, C 15), C 15), C 15), C 14), C 10) C 26), C 21), C 21), C 26)	 vasa=103mph; ICDL=6.0ps; BCDL=6.0ps; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-2-12, Exterior (2N) 12-2-4 to 16-2-4, Corner(3E) 16-2-4 to 19-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); PI=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Lumb Cat B: Elly Expo: Cae.0 9; 							s is designed in accordance with the 2018 nal Residential Code sections R502.11.1 and .2 and referenced standard ANSI/TPI 1. :(S) Standard			
FORCES	(lb) - Max	kimum Com	pression/Maximur	m	Cs=1.00 5) Unbalan	; Ct=1.10 ced snow loads ha	ave been cor	nsidered for th	his			112	O'FESS	NA ST	
TOP CHORD	lension 2-24=-16 3-4=-106 6-7=-96/1 9-10=-76 12-13=0/ 23-24=-1 21-22=-1 19-20=-1 16-17=-1 14-15=-1	8/64, 1-2=0 /91, 4-5=-9 /119, 10-11 39, 12-14=- 05/187, 22- 05/187, 20- 05/187, 17- 05/187, 15- 05/187	0/39, 2-3=-165/141 3/116, 5-6=-115/2 2/166, 8-9=-117/2 =-89/71, 11-12=-1 155/46 •23=-105/187, •19=-105/187, •16=-105/187,	I, 33, 38, I51/116,	 design. 6) This trus load of 1 overhang 7) All plates 8) Gable re 9) Truss to braced a 10) Gable st 11) This trus chord liv 	s has been design 2.0 psf or 1.00 tim gs non-concurrent s are 2x4 MT20 ur quires continuous be fully sheathed gainst lateral mov uds spaced at 2-0 s has been design e load nonconcurr	ned for great les flat roof le with other li less otherwi bottom choi from one fac ement (i.e. c -0 oc. ed for a 10.1 ent with any	er of min roof pad of 20.0 p: ve loads. se indicated. d bearing. ee or securely liagonal web) 0 psf bottom other live loa	f live sf on ,		C , 1111111		SEA 0363	L 22 ILBERTUU	

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	D02	Common Girder	1	3	I66625050 Job Reference (optional)

Scale = 1:60.5

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:03 ID:ahvaep5BsMWascBuTkn6buzRAib-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Plate Offsets (X, Y): [1:0-9-0,0-5-0], [2:0-0-8,0-1-12], [4:0-0-8,0-1-12], [5:0-9-0,0-5-0], [6:0-9-4,0-3-0], [8:0-9-8,0-6-0], [9:0-9-4,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDI	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018	/TPI2014	CSI TC BC WB Matrix-MSH	0.35 0.48 0.96	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.14 0.02	(loc) 8-9 8-9 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190 ET = 20%
LUMBER TOP CHORD BOT CHORD WEBS WEDGE	2x6 SP No.2 2x12 SP 2400F 2.0E 2x4 SP No.3 *Excep Left: 2x4 SP No.3 Right: 2x4 SP No.3	* 8-3:2x4 SP No.1	4)	Wind: ASCE Vasd=103mp II; Exp B; End cantilever left right exposed	7-16; Vult=130mph h; TCDL=6.0psf; B closed; MWFRS (er and right exposed l; Lumber DOL=1.6	n (3-sec CDL=6 nvelope ; end v 60 plate	cond gust) 0.0psf; h=25ft e) exterior zo vertical left ar grip DOL=1	; Cat. ne; nd .60	Co	oncentra Vert: 16 19=-180 (B)	ted Loa =-4967 0 (B), 1	ads (lb) 7 (B), 17=-2857 20=-1800 (B), 2	(B), 18=-2858 (B), 1=-1800 (B), 22=-1800
BRACING TOP CHORD BOT CHORD	Structural wood shea 6-0-0 oc purlins. Rigid ceiling directly bracing.	athing directly applied applied or 10-0-0 oc	5) d or 6)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced s	7-16; Pr=20.0 psf (15); Pf=20.0 psf (L s=1.0; Rough Cat E 1.10 snow loads have be	(roof LL .um DC 3; Fully een cor	L: Lum DOL= DL=1.15 Plate Exp.; Ce=0.1 Insidered for t	1.15 9 9; his					
REACTIONS FORCES TOP CHORD BOT CHORD	(size) 1=0-5-8, 5 Max Horiz 1=-181 (Li Max Grav 1=14270 ((lb) - Maximum Com Tension 1-2=-14538/0, 2-3=- 4-5=-12672/0 1-9=0/11144, 8-9=0/ 5-6=0/9661	5=0-5-8 C 10) (LC 21), 5=10749 (LC pression/Maximum 10009/0, 3-4=-9999/0 11144, 6-8=0/9661,	7) 2 6) 8) 0, 9)	design. This truss has chord live loa * This truss h on the bottom 3-06-00 tall b chord and an This truss is of International R802.10.2 an	s been designed fo d nonconcurrent w as been designed fo o chord in all areas y 2-00-00 wide will y other members. Jesigned in accorda Residential Code s d referenced stanc	r a 10.0 ith any for a liv where fit betw ance w ections dard AN	0 psf bottom other live loa e load of 20. a rectangle veen the bott ith the 2018 i R502.11.1 a ISI/TPI 1.	ads. Opsf om and					
 WEBS NOTES 1) 3-ply truss Top chord follows: 2x Bottom chi screws as Web chores All loads a except if n CASE(S) s provided tt unless oth 3) Unbalance this design 	3-8=0/12305, 4-8=-2 2-8=-5117/0, 2-9=0/6 to be connected toget s connected with 10d (66 - 2 rows staggered a ords connected with Si follows: 2x12 - 3 rows ds connected with 10d ds connected with 10d d+ - 1 row at 0-9-0 oc. re considered equally oted as front (F) or bac section. Ply to ply conn o distribute only loads erwise indicated. dd roof live loads have h.	831/0, 4-6=0/3607, 5428 her 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/ lections have been noted as (F) or (B), been considered for	10) 11) 1/2 12) c. AD LO 1)	26-10dx11/2 Truss, Single PIy Girder) or equivalent spaced at 2-0-0 oc max. starting at 10-4-12 from the left end to 16-4-12 to connect truss(es) to back face of bottom chord. Fill all nail holes where hanger is in contact with lumber. Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 7875 Ib down and 559 lb up at 2-7-0, and 3596 lb down at 4-4-0, and 3596 lb down at 8-5-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others. AD CASE(S) Standard Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (lb/ft) Vert: 1-360, 3-5=-60, 10-13=-20								SEA 0363	EER. HUMAN

July 2,2024

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	E01	Common	1	1	I66625051 Job Reference (optional)

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:03 ID:5YjLyPhGJKHB5AEdSp6x7Qy7LK3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



0-4-4	3-9-0	7-1-12	7-6-0
0-4-4	3-4-12	3-4-12	0-4-4

Scale = 1:38.1

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	1-11-4 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MR	0.22 0.17 0.04	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.00	(loc) 9-10 9-10 8	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 44 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 2x6 SP No.2 *Excep 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 8=0-3-8, 1 Max Horiz 12=-116 (Max Uplift 8=-38 (LC Max Grav 8=451 (LC	t* 10-4:2x4 SP No.3 athing directly applie cept end verticals. applied or 10-0-0 oc 12=0-3-8 LC 12) ; 15), 12=-38 (LC 14) C 22), 12=451 (LC 21	4) 5) d or 6) ; 7) 8) 9) 10)	TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct Unbalanced design. This truss ha load of 12.0 overhangs n All plates are Truss to be f braced again Gable studs This truss ha	F7-16; Pr=20.0 psf (1.15); Pf=20.0 psf (1 Is=1.0; Rough Cat I =1.10 snow loads have b as been designed for psf or 1.00 times fla on-concurrent with a 2x4 MT20 unless ully sheathed from nst lateral movemer spaced at 2-0-0 oc is been designed for ad opnoconcurrent w	(roof LL Lum DC B; Fully een cor or great at roof lo other liv other liv other liv other wi one fac other in one fac other a 10.0	.: Lum DOL=' JL=1.15 Plate Exp.; Ce=0.9 isidered for the er of min roof bad of 20.0 ps re loads. se indicated. e or securely iagonal web). D psf bottom other live load	1.15); live sf on					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	11)	* This truss h	nas been designed	for a liv	e load of 20.0	opsf					
TOP CHORD	1-2=0/54, 2-3=-282/ 4-5=-239/143, 5-6=- 2-12=-358/141, 6-8= 11-12=-7/164, 10-11	70, 3-4=-238/145, 282/67, 6-7=0/54, 358/136 =-7/164, 9-10=-7/16	12) 4.	3-06-00 tall to chord and ar H10A Simps	by 2-00-00 wide will by other members. on Strong-Tie conn	fit betv	ecommended	om d to					
WEBS	8-9=-7/164 4-10=-65/116, 3-11=	-78/91, 5-9=-78/93	.,	and 8. This c	connection is for up ral forces.	lift only	and does not	12					
NOTES 1) Unbalance	ed roof live loads have	been considered for	13)	This truss is International	designed in accord Residential Code s	ance w	ith the 2018 R502.11.1 a	nd				"TH CA	Route

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) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 5-4-8, Exterior(2E) 5-4-8 to 8-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



Page: 1

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	G01	Monopitch	5	1	Job Reference (optional)



Page: 1



Scale = 1:64.6

Plate Offsets (X,	Y):	[2:0-2-0,0-1-8],	[3:0-4-0,0-3-4]
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Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD WEBS TOP CHORD BOT CHORD WEBS 1) Wind: ASC Vasd=103 II; Exp B; F and C-C E to 12-11-8	(psf) 20.0 20.0 10.0 0.0* 10.0 0.0* 10.0 2x4 SP No.1 *Excep 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood she 2-2-0 oc purlins, exi 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 Tension 1-2e0/27, 2-4=-678/ 4-7=-330/123, 2-9=- 8-9=-333/217, 7-8=- 3-8=0/313, 3-7=-769 CE 7-16; Vult=130mph mph; TCDL=6.0psf; Bf Enclosed; MWFRS (er xterior(2E) 10-10-8 to 1; Exterior(2E) 12-11-8	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code 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 or 4-7, 3-7 mical, 9=0-5-8 C14) C 14) C 5), 9=754 (LC 5) ipression/Maximum 119, 4-5=-12/0, 655/84 196/606, 6-7=0/0 b/250, 2-8=0/489 (3-second gust) CDL=6.0psf; h=25ft; tyelope) exterior zono 2-1-8, Interior (1) 2-1 to 15-11-8 zone;	2-0-0 1.15 1.15 YES IRC2018 4) 5) ed or 6) c 7) 8) 9) LC Cat. Ne 1-8	B/TPI2014 This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall t chord and ar Refer to gird Provide mec bearing plate 7. This truss is International R802.10.2 a	CSI TC BC WB Matrix-MSH as been designed to psf or 1.00 times f on-concurrent with as been designed to an chord in all area by 2-00-00 wide w by other members. er(s) for truss to tr shanical connection e capable of withst designed in accor Residential Code nd referenced star Standard	0.95 0.67 0.39 for greated lat roof lat for a 10.0 with any d for a liv is where ill fit betw , with BC russ conr n (by oth tanding 2 dance w sections ndard AN	DEFL Vert(LL) Vert(CT) Horz(CT) er of min roof bad of 20.0 p re loads. D psf bottom other live load e load of 20.1 a rectangle veen the bott DL = 10.0psi nections. ers) of truss i t21 lb uplift al i31 th the 2018 is R502.11.1 a ISI/TPI 1.	in -0.12 -0.20 -0.01 flive sf on ds. Opsf om f. t joint	(loc) 7-8 7-8 7	l/defl >999 >923 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 106 lb	GRIP 244/190 FT = 20%	
NOTES 1) Wind: ASC Vasd=103 II; Exp B; I and C-C E to 12-11-8 cantilever exposed;C reactions s DOL=1.6 CS=1.00; (3) Unbalance design.	CE 7-16; Vult=130mph mph; TCDL=6.0psf; BG Enclosed; MWFRS (er ixterior(2E) -0-10-8 to i , Exterior(2E) 12-11-8 left and right exposed 2-C for members and for shown; Lumber DOL=7 CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L); Is=1.0; Rough Cat E Ct=1.10 ed snow loads have be	(3-second gust) CDL=6.0psf; h=25ft; ivelope) 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 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9 even considered for the	Cat. le I-8 I.15 I;							W. THILLING		SEA 0363	RO(1) 22 11.8ER 11.8ER	





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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	H01	Monopitch Supported Gable	2	1	I66625053 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:03 ID:kX6Xm09JsM8Rk_RkgNonK3zRRGV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale =	1:42.7
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Plate Offsets	(X, Y):	[2:Edge,0-0-14],	[2:0-2-5,Edge]
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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	0.90	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.37	Vert(CT)	n/a	-	n/a	999			
TCDL		10.0	Rep Stress Incr	YES		WB	0.40	Horz(CT)	-0.01	2	n/a	n/a			
BCLL		0.0*	Code	IRC201	8/TPI2014	Matrix-MSH									
BCDL		10.0											Weight: 65 lb	FT = 20%	
LUMBER TOP CHORD	2x4 SP N	0.2		1)	Wind: ASCE Vasd=103mp II: Exp B: En	7-16; Vult=130mp oh; TCDL=6.0psf; closed: MWERS ()	oh (3-seo BCDL=6 envelope	cond gust) 5.0psf; h=25ft	; Cat.						
WEBS	2x4 SP N	lo 1 *Evcen	t* 9-16-2x4 SP No 3		and C-C Ext	erior(2E) -0-10-8 to	o 2-0-0.	Interior (1) 2-	0-0						
OTHERS	2x4 SP N	lo.1 Excep	1 3-10.224 01 10.5		to 16-0-0 zor	ne; cantilever left a	and right	exposed ; er	nd						
WEDGE	Left 2x4	SP No 3			vertical left a	nd right exposed;	C-C for r	nembers and							
	LOIL ZAT	01 110.0			forces & MW	/FRS for reactions	shown;	Lumber							
	Structura	l wood she	athing directly applied	d or	DOL=1.60 pl	late grip DOL=1.60	C								
	6-0-0 oc	purlins, exc	cept end verticals.	2)	Truss design	ned for wind loads	in the p	lane of the tru	uss						
	Except:		10		see Standard	d Industry Gable E	nd Deta	ils as applica	ble.						
	4-6-0 oc	bracing: 11	-16 -16		or consult qu	alified building de	signer a	s per ANSI/TI	PI 1.						
BOICHORD	bracing.	ing directly	applied or 6-0-0 oc	3)	TCLL: ASCE	7-16; Pr=20.0 ps	f (roof Ll	L: Lum DOL=	1.15						
REACTIONS	(size)	2=10-1-0,	11=10-1-0, 12=10-1	-0, 1-0	DOL=1.15);	Is=1.0; Rough Cat	B; Fully	Exp.; Ce=0.9	9;						
		20=10-1-0)	10,	Cs=1.00; Ct=	=1.10									
	Max Horiz	2=174 (LC	, C 11). 20=174 (LC 11) 4)	Unbalanced	snow loads have l	been cor	nsidered for the	his						
	Max Uplift	2=-3 (LC	11). 11=-237 (LC 14)	, 	design.										
		12=-1 (LC	10), 13=-18 (LC 10)	' 5)	load of 12.0	psf or 1.00 times f	for great lat roof l	er of min roof bad of 20.0 p	sf on						
		14=-151 (LC 14), 20=-3 (LC 11)	overhangs n	on-concurrent with	n other li	ve loads.							
	Max Grav	Z=1 (LC Z	(1), 11=803 (LC 21),	6)	All plates are	e 2x4 MT20 unless	s otherwi	se indicated.						(11)	
		12=136 (L	C 1), 13=170 (LC 1)	7)	Gable studs	spaced at 2-0-0 o	с.						White CA	Dalle	
		14=205 (L 20=1 /LC	20 21), 15=230 (LC 2 21)	. ^{7),} 8)	This truss ha	as been designed f	for a 10.	0 psf bottom				1	"aTH UN	TOY.	
	(11-)	20=1 (LC	21)		chord live loa	ad nonconcurrent	with any	other live loa	ids.			5	OFFESS	6.10	1
FORCES	(ID) - IVIAX		pression/iviaximum	9)	* This truss h	has been designed	d for a liv	e load of 20.0	0psf		/		OFLOY	Wir Z	in-
	1-2-0/17	2-3186/	110 3-1-176/127		on the bottor	n chord in all area	s where	a rectangle			2			1 m	1
TOF CHORD	4-5424	, 2-3=-400/- /423 5.7'	+19, 3-4=-470/427, 384/406 7-8387/4	76	3-06-00 tall b	by 2-00-00 wide wi	ill fit betw	veen the bott	om						2
	8-9=-567	/841 9-10=	-63/0 11-16=-877/5)1 ₄c		iy other members.		at a ra				:	SEA	L :	1
	8-16=-23	4/114		-, IC		of to connect truck	e conne	ing walls due	to		=	:	0262	22:	
BOT CHORD	2-15=-38	2/272, 14-1	5=-382/272,		LIPLIET at it/	(c) 11 2 14 13 a	nd 12 T	his connectio	n is		1		0303	~~ :	-
	13-14=-3	82/272, 12-	13=-382/272,		for unlift only	and does not con	nu 12. i Isider lat	eral forces	1113		-				-
	11-12=-3	82/272		11) Non Standar	d bearing conditio	n Revie	ew required			5	-	·	air	3
WEBS	3-15=-14	3/21, 4-14=	-132/140,	12) This truss is	designed in accor	dance w	ith the 2018				25	S .VGIN	EFICA	1
	5-13=-16	1/102, 7-12	=-42/57, 9-16=-979/	590	International	Residential Code	sections	R502.11.1 a	and			11	10	DEN	
NOTES					R802.10.2 a	nd referenced star	ndard AN	ISI/TPI 1.					11, A. G	ILDIN	
				LC	DAD CASE(S)	Standard							111111	ann.	

July 2,2024

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	H02	Monopitch	6	1	I66625054 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:03 ID:nLPVeuW3K4TytrtY3ILLguzRRHK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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

Scale = 1:44.3

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

Loading FCLL (roof) Snow (Pf) FCDL 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	0.94 0.40 0.40	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.03 -0.06 0.01	(loc) 9-10 9-10 9	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 65 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD 3OT CHORD WEBS WEDGE BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Except Left: 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exc Except: 4-4-0 oc bracing: 9-1	* 5-9:2x4 SP No.1 athing directly applie xept end verticals. 1	3) 4) 5) ^{cd or} 6)	Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b	snow loads have s been designed por on the store of the store on concurrent with s been designed ad nonconcurrent nas been designed n chord in all area by 2-00-00 wide w	been cor for greate flat roof lo n other liv for a 10.0 with any d for a liv as where ill fit betw	isidered for the sidered for the sidered for the side of 20.0 p reloads. The side of 20.0 p for the side of 20.0 p side of 20.	his Flive sf on Ids. Opsf om						
BOT CHORD REACTIONS	Rigid ceiling directly bracing. (size) 2=0-3-0, 9 Max Horiz 2=206 (LC Max Uplift 2=-102 (LC Max Grav 2=377 (LC (lb) - Maximum Com Tension	applied or 10-0-0 oc =0-5-8 : 10) C 10), 9=-365 (LC 1(: 1), 9=1084 (LC 21) pression/Maximum	; 7) 0) 8) 1	chord and ar One H2.5A S recommende UPLIFT at jt(and does not This truss is International R802.10.2 ar DAD CASE(S)	y other members Simpson Strong-T ed to connect trus: s) 9 and 2. This c t consider lateral f designed in accor Residential Code nd referenced star Standard	ie conne s to beari onnection orces. dance w sections ndard AN	ctors ng walls due n is for uplift th the 2018 R502.11.1 a SI/TPI 1.	to only and						
TOP CHORD BOT CHORD WEBS NOTES I) Wind: AS Vasd=10: II; Exp B; and C-C1 to 16-00	1-2=0/17, 2-3=-368/8 5-6=-576/849, 6-7=-6 5-11=-235/92 2-10=-220/338, 9-10 3-10=-130/213, 3-9= CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) -0-10-8 to 2	32, 3-5=-411/468, 33/0, 9-11=-850/485 =-220/338, 8-9=0/0 -616/482, 6-11=-988 (3-second gust) CDL=6.0psf; h=25ft; velope) exterior zon 2-1-8, Interior (1) 2-1 perced - perceb left an	, 8/599 Cat. e -8							1 and	A.L.	OFTESS SEA	ROLIN	Ann

- Vaste 105/11, 17:02 = 0.05/31, 000 DE=0.05/31, 12:201, 02 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 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 TCLL: ASSEE 7.16; Pr. 20.0 ppf (conf.LL; Lum DOL=1.16)
- 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

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A MiTek Affilia 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	J01	Common	5	1	Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:03 ID:yPXMLbyKekkHSiWSIZLGINzRR58-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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8-7-8	17-0-8
8-7-8	8-5-0

Plate Offsets (X, Y): [5:0-3-8,Edge], [6:0-4-0,0-3-0]

Scale = 1:40.3

							-			-			· · · · · · · · · · · · · · · · · · ·
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	0.38	Vert(LL)	-0.09	6-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.64	Vert(CT)	-0.19	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.21	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 75 lb	FT = 20%
LUMBER			5)	This truss ha	s been designed fo	or a 10.0) psf bottom						
TOP CHORD	2x4 SP No.2		,	chord live loa	d nonconcurrent w	ith any	other live loa	ads.					
BOT CHORD	2x4 SP No.2		6)	* This truss h	as been designed	for a liv	e load of 20.	0psf					
WEBS	2x4 SP No.3			on the botton	n chord in all areas	where	a rectangle						
WEDGE	Right: 2x4 SP No.3			3-06-00 tall b	y 2-00-00 wide will	l fit betv	een the bott	tom					
BRACING				chord and an	y other members.								
TOP CHORD	Structural wood shea	athing directly applie	dor ()	Bearings are	assumed to be: , J	JOINT 5 2	P NO.2 .	to					
	5-1-15 oc purlins.		8)	bearing plate	capable of withsta	(by oth Inding 6	6 lb unlift at	ioint					
BOT CHORD	Rigid ceiling directly bracing.	applied or 10-0-0 oc	0)					joint					
REACTIONS	(size) 1=0-5-8, 5	5=0-3-8	9)	Une H2.5A S	d to connect truce	to boori	ciors	a to					
	Max Horiz 1=71 (LC	14)		LIPLIET at it/	s) 5 This connection	on is for	unlift only a	nd					
	Max Uplift 1=-66 (LC	: 14), 5=-64 (LC 15)		does not con	sider lateral forces		upint only u	i i u					
	Max Grav 1=747 (LC	C 20), 5=746 (LC 21)	10) This truss is	designed in accord	lance w	ith the 2018						
FORCES	(lb) - Maximum Com	pression/Maximum		International	Residential Code s	sections	R502.11.1 a	and					
	Tension			R802.10.2 ar	d referenced stand	dard AN	ISI/TPI 1.						
TOP CHORD	1-2=-1256/309, 2-3=	-879/232, 3-4=-871/2	^{231,} LC	AD CASE(S)	Standard								
	4-5=-1211/300												
WERS	2 6 51/474 4 6 4	01/150 2 6- 420/17	٨										
NOTES	3-0=-31/474, 4-0=-40	01/109, 2-0=-409/17	+									SOULD	175
1) Unbalance	d roof live loads have	been considered for										N'''L CA	5111
this design).											THUA	ROM
2) Wind: ASC	E 7-16; Vult=130mph	(3-second gust)									~	ON FESS	in the
Vasd=103	mph; TCDL=6.0psf; B0	CDL=6.0psf; h=25ft;	Cat.							/	$\leq \epsilon$	10 to to	Na. 21
II; Exp B; E	Enclosed; MWFRS (en	velope) exterior zone	е								g e	81 d	ac
and C-C E	xterior(2E) 0-0-0 to 3-0	0-0, Interior (1) 3-0-0	to							-			
5-7-8, Exte	erior(2R) 5-7-8 to 11-7-	-8, Interior (1) 11-7-8	to								:	SEA	L : =
14-0-8, Ex	terior(2E) 14-0-8 to 17	-0-8 zone;C-C for								Ξ	- 1	0363	22 E
Lumber D(And forces & MWERS											0000	
3) TCLL: ASC	CE 7-16: Pr=20.0 psf (i	r_{0} roof LL: Lum DOI =1	.15							-	2	N	1 2
Plate DOL	=1.15); Pf=20.0 psf (L	um DOL=1.15 Plate									- 1	N.ENIA	CRIL S
DOL=1.15); Is=1.0; Rough Cat B	; Fully Exp.; Ce=0.9;									31	S, GIN	E. A.N
Cs=1.00; C	Ct=1.10										1	CA O	II BEIN
4) Unbalance	ed snow loads have be	en considered for thi	is									11, A. G	1 Linn
design.													In

July 2,2024

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	PBA	Piggyback	2	1	I66625056 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:04 ID:RPY8AW_GFKIcY3mFoYebvHzRQqK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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 IRC201	8/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 w 6-0-0 oc pu Rigid ceiling bracing. (size) 2 1 1 1 Max Horiz 2 Max Uplift 2 1 1 Max Grav 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 3 3 (rood she rlins. 9 (11-10- 0=11-10 2=11-10 2=11-10 9=11-10 (1-52 (LC 0=-45 (L 5=-9 (LC 5=-9 (LC 5=-9 (LC 5=-9 (LC 5=-9 (LC 2=143 (L 4=240 (L 2=143 (L 4=240 (L 9=125 (L)	athing directly applied applied or 10-0-0 oc 14, 8=11-10-14, -14, 13=11-10-14, -14, 13=11-10-14, -14, 15=52 (LC 18) 15), 8=-12 (LC 15), C 14), 11=-47 (LC 15), C 14), 14=-46 (LC 14) C 14), 14=-46 (LC 14) C 14), 14=-42 (LC 22) C 22), 13=243 (LC 22) C 22), 13=243 (LC 22) C 22), 15=125 (LC 22) C 22)	2) d or 3) 4) 5), (1), (2), (6) (1), (7), (7) (8)	 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) 0-4-3 to 3-4-3, Exterior(2N) 3-4-3 to 3-11-0, Corner(3E) 3-11-0 to 9-11-0, Exterior(2N) 9-11-0 to 10-5-13, Corner(3E) 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 DOL=1.60 Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. TCLL: ASCE 7-16; 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. 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. 						 14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer. LOAD CASE(S) Standard 					
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance this design	(lb) - Maxim Tension 1-2=0/17, 2: 4-5=-64/116 7-8=-30/26, 2-14=-9/67, 5-12=-102/0 6-11=-207/1 ed roof live loa	-3=-46/3 5, 5-6=-6 8-9=0/1 13-14=- 7, 10-11= 0, 4-13=- 124, 7-10 ads have	pression/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/)=-183/114 been considered for	9) 10 11 114, 12 13	Gable studs) This truss ha chord live loa) * This truss ha on the bottor 3-06-00 tall th chord and ar chord and ar) One H2.5A § recommended UPLIFT at jt(is for uplift on) This truss is International R802.10.2 at	spaced at 2-0-0 c is been designed ad nonconcurrent has been designe in chord in all area by 2-00-00 wide w by other members simpson Strong-T ed to connect trus s) 2, 8, 13, 14, 11 hy and does not c designed in accor Residential Code nd referenced sta	c. for a 10. with any d for a liv as where ill fit betv ie conne s to bear , and 10 consider dance w e sections ndard AN	D psf bottom other live load e load of 20.0 a rectangle veen the botto ctors ing walls due This connect lateral forces. ith the 2018 s R502.11.1 a JSI/TPI 1.	ds. Ipsf om to tion nd				SEA 0363	L 22 EEFRAN	in the second second	

International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

July 2,2024

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	PBA1	Piggyback	16	1	I66625057 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:04 ID:Cx19sF4HMnJTVINoGDnTDzzRQqC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



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TRENCO A MI Tek Affiliate

818 Soundside Road

Edenton, NC 27932

July 2,2024

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	PBA2	Piggyback	2	4	I66625058 Job Reference (optional)

Loading

TCDL

BCLL

BCDL

LUMBER

OTHERS

FORCES

WFBS

NOTES

follows: 2x4 - 1 row at 0-9-0 oc.

unless otherwise indicated.

All loads are considered equally applied to all plies,

CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B),

except if noted as front (F) or back (B) face in the LOAD

1)

2)

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Tue Jul 02 10:00:04 ID:m2dQdjvppkexqPVgwg5aZPzRCX1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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.

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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

818 Soundside Road

G1 mun

July 2,2024

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLB1	Valley	1	1	Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:04 ID:uRu6rMLa1rImrJyJNhjxxpzRQsR-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f



Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLB2	Valley	1	1	I66625060 Job Reference (optional)

Loading

TCDL

BCLL

BCDL

LUMBER

OTHERS

FORCES

WEBS

NOTES

1)

Run: 8 73 S. Jun 13 2024 Print: 8 730 S. Jun 13 2024 MiTek Industries. Inc. Tue Jul 02 10:00:04 ID:yJIn_UX?VSBe9dbBmLUS1zzRQsC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Edenton, NC 27932



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

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLB3	Valley	1	1	I66625061 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:04 ID:4pahjxh9RSqoCd5h0aDV3jzRQs?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:50.5

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	0.35 0.18 0.27	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: 75 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=16-10-6 8=16-10-6 Max Horiz 1=-161 (L Max Uplift 1=-22 (LC 9=-184 (L Max Grav 1=120 (LC 6=519 (LC 9=520 (LC	athing directly applie applied or 6-0-0 oc 5, 5=16-10-6, 6=16-1 6, 9=16-10-6 C 10) C 10), 6=-182 (LC 15 C 14) C 30), 5=104 (LC 21 C 6), 8=502 (LC 24), C 24)	3) 4) ed or 5) 10-6, 6) 7) 8)), 8)), 9)	Truss design only. For stu- see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct- Unbalanced design. Gable requir Gable studs This truss ha chord live loa * This truss ha on the bottor 3-06-00 tall b	ned for wind load: uds exposed to wi d Industry Gable I ialified building de ; 7-16; Pr=20.0 ps 15); Pf=20.0 ps is=1.0; Rough Ca =1.10 snow loads have es continuous bol spaced at 4-0-0 c is been designed ad nonconcurrent has been designed n chord in all area by 2-00-00 wide bor	s in the p nd (norm End Deta signer as if (roof LL (Lum DC t B; Fully been cor tom chor ic. for a 10.1 with any d for a liv as where ill fit betv	lane of the tri al to the face ils as applica s per ANS/ITI L = 1.15 Plate Exp.; Ce=0.9 msidered for the d bearing. D psf bottom other live load e load of 20.0 a rectangle ween the botth DL = 10 000000000000000000000000000000000	uss), ble, PI 1. 1.15 ;); his ds. Dpsf					
FORCES TOP CHORD	(lb) - Maximum Com Tension 1-2=-143/255, 2-3=-	pression/Maximum 106/193, 3-4=-106/1	10) 73,	Provide mec bearing plate 1. 184 lb upli	hanical connection capable of withs and 18	n (by oth tanding 2 32 lb upli	ers) of truss t 2 lb uplift at j t at joint 6.	o oint					
BOT CHORD WEBS NOTES	4-5=-118/219 1-9=-135/136, 8-9=- 5-6=-135/136 3-8=-316/0, 2-9=-39	135/136, 6-8=-135/1 5/219, 4-6=-395/218	36, ¹¹⁾ , 12)) Beveled plat surface with) This truss is International R802.10.2 a	e or shim required truss chord at joir designed in acco Residential Code nd referenced sta	to provi nt(s) 1, 5. rdance w sections ndard AN	de full bearin ith the 2018 R502.11.1 a ISI/TPI 1.	g nd			and the	WITH CA	ROLA

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-5-3, Exterior(2E) 13-10-6 to 16-10-6 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



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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLB4	Valley	1	1	I66625062 Job Reference (optional)

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:04 ID:CKtcSNrINSSyGdaBHoyY5SzRQro-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

14-5-0 7-2-8 14-0-14 7-2-8 6-10-6 4x5 = 3 2x4 🛚 2x4 II 13 14 5-8-10 6-0-5 2 4 12 10 Г 5 0-0-4 8 15 7 16 6 3x5 🍫 2x4 II 2x4 II 2x4 II 3x5、

14-5-0

Scale = 1:43.4

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDI	(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.31 0.16 0.14	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: 62 lb	GRIP 244/190
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 shea 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=14-5-10 7=14-5-10 Max Horiz 1=-137 (L Max Uplift 1=-24 (LC 8=-157 (L) Max Grav 1=122 (LC 6=455 (LC)	athing directly applie applied or 6-0-0 oc), 5=14-5-10, 6=14-5), 8=14-5-10 C 10) : 10), 6=-154 (LC 15) C 14) 2 25), 5=98 (LC 24), 2 21), 7=406 (LC 24)	3) 4) d or 5) -10, 6) 7) 1, 8) 9) ,	Truss design only. For stu- see Standarro or consult qu- TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Cte Uhbalanced design. Gable requiri Gable studs This truss ha chord live loa * This truss h on the bottom	I ned for wind loads dds exposed to wi d Industry Gable I allified building de 5.7-16; Pr=20.0 ps 1.15); Pf=20.0 ps Ils=1.0; Rough Ca =1.10 snow loads have es continuous bot spaced at 4-0-0 c sa been designed ad nonconcurrent nas been designed no chord in all area yo 2-00-00 wide w	s in the p nd (norm End Deta esigner as for for of LL (Lum DC t B; Fully been cor tom chor to. for a 10.1 with any d for a liv as where ill fit betw	lane of the tru al to the face ils as applica s per ANS//TI :: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 ansidered for the d bearing. D psf bottom other live loa e load of 20.0 a rectangle	uss), ble, Pl 1. 1.15 e 9; his dds. Opsf				weight. oz ib	11 = 20%
FORCES	(lb) - Maximum Com Tension	pression/Maximum	10)	chord and ar Provide mec	ny other members hanical connectio	, with BC n (by oth	DL = 10.0psi ers) of truss t	f. to					
TOP CHORD	1-2=-153/144, 2-3=-	174/120, 3-4=-174/1	12,	1, 157 lb upli	ift at joint 8 and 1	54 lb upli	ft at joint 6.	onn					
BOT CHORD	1-8=-60/126, 7-8=-60 5-6=-60/99 3-7=-227/0, 2-8=-375	0/99, 6-7=-60/99, 5/196, 4-6=-375/195	11) 12)) Beveled plate surface with) This truss is International	e or shim required truss chord at joir designed in acco Residential Code	d to provi ht(s) 1, 5. rdance w sections	de full bearin ith the 2018 R502.11.1 a	g Ind				TH CA	RO

- 1) Unbalanced roof live loads have been considered for this design. 2)
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 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 14-5-10 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



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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLB5	Valley	1	1	I66625063 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:04 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:39.1

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(ps 20 20 10 0	Spacing 0.0 Plate Grip DOL 0.0 Lumber DOL 0.0 Rep Stress Incr 0.0* Code	2-0-0 1.15 1.15 YES IRC2018	3/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	GRIP 244/190
BCDL 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 6-0-0 oc purlins Rigid ceiling dir bracing. (size) 1=12 7=12 Max Horiz 1=-1	.0 d sheathing directly appli s. ectly applied or 10-0-0 o 2-0-13, 5=12-0-13, 6=12- 10-13, 8=12-0-13 14 (LC 10)	3) 4) ed or c 5) 0-13, 6) 7)	Truss desig only. For stu see Standar or consult qu TCLL: ASCE Plate DOL= ² DOL=1.15); Cs=1.00; Ct: Unbalanced design. Gable requir Gable studs	ned for wind load uds exposed to w d Industry Gable ualified building d 57-16; Pr=20.0 ps Is=1.0; Rough Ca =1.10 snow loads have es continuous bo spaced at 4-0-0	Is in the p ind (norm End Deta esigner as sf (roof LL f (Lum DC at B; Fully been cor ttom chor oc.	lane of the tru al to the face ils as applica s per ANSI/TI : Lum DOL= :L=1.15 Plate Exp.; Ce=0.9 nsidered for the d bearing.	uss), ble, p1 1. 1.15 9 0; his				Weight: 50 lb	FT = 20%
FORCES TOP CHORD BOT CHORD WEBS NOTES	Max Uplift 1=-33 6=-13 Max Grav 1=91 (LC 2 20) (lb) - Maximum Tension 1-2=-115/101, 2 4-5=-89/63 1-8=-31/76, 7-8 5-6=-31/72 3-7=-172/0, 2-8	3 (LC 10), 5=-5 (LC 11), 35 (LC 15), 8=-139 (LC 1 (LC 30), 5=70 (LC 24), 21), 7=260 (LC 20), 8=43 Compression/Maximum 2-3=-218/116, 3-4=-218/ =-31/72, 6-7=-31/72, =-401/220, 4-6=-401/220	8) 4) 6=435 5 (LC 10 116, 11) 12	 This truss is chord live loc This truss is on the bottor 3-06-00 tall is chord and an Provide mec bearing plate 1, 5 lb uplift is uplift at joint Beveled plat Surface with This truss is international 	as been designed ad nonconcurren nas been designe n chord in all are oy 2-00-00 wide v ny other member shanical connectia capable of with at joint 5, 139 lb i 6. e or shim require truss chord at joi designed in acco Residential Cod	d to ra 10.0 t with any ad for a liv as where will fit betv s. on (by oth standing 3 uplift at joi d to provi nt(s) 1, 5. ordance w e sections	other live load other live load e load of 20.0 a rectangle veen the botto ers) of truss t i3 lb uplift at j nt 8 and 135 de full bearing ith the 2018 s R502.11.1 a	ds. Dpsf om oint Ib g nd				WTH CA	ROL

- Unbalanced roof live loads have been considered for 1) this design. 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
- Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 9-0-13, Exterior(2E) 9-0-13 to 12-0-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLB6	Valley	1	1	I66625064 Job Reference (optional)

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:05 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



9-7-6

Scale =	1:33.2
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Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.45 0.42 0.19	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: 37 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 shea 9-7-6 oc purlins. Rigid ceiling directly bracing. (size) 1=9-8-0, 3 Max Horiz 1=90 (LC Max Uplift 1=-55 (LC Max Grav 1=89 (LC: (LC 20)	athing directly applie applied or 6-0-0 oc 3=9-8-0, 4=9-8-0 11) 21), 3=-55 (LC 20), C 14) 20), 3=89 (LC 21), 4	4 ed or 6 7 8 9 9 , 4=787 1	 TCLL: ASCE Plate DOL=' DOL=1.15); Cs=1.00; Ct: Unbalanced design. Gable requir Gable studs This truss ha chord live loa chord live loa * This truss ha on the botton 3-06-00 tall h chord and an Provide mec bearing plate 	7-16; Pr=20.0 ps 1.15); Pf=20.0 ps Is=1.0; Rough Ca =1.10 snow loads have es continuous bot spaced at 4-0-0 o as been designed ad nonconcurrent nas been designed m chord in all area by 2-00-00 wide w ny other members hanical connectio a capable of withs?	f (roof LL (Lum DC t B; Fully been cor tom chor c. for a 10.0 with any d for a liv is where ill fit betw n (by oth anding 5	: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 d bearing. D psf bottom other live loa e load of 20.0 a rectangle yeen the botto ers) of truss t 5 lb uplift at i	1.15 b; ds. Dpsf om o					
FORCES TOP CHORD BOT CHORD WEBS NOTES	(lb) - Maximum Com Tension 1-2=-120/385, 2-3=-1 1-4=-254/177, 3-4=-2 2-4=-654/278	pression/Maximum 120/385 254/177	1	 55 lb uplif Beveled plat surface with This truss is International R802.10.2 a 	t at joint 3 and 111 e or shim required truss chord at join designed in accor Residential Code nd referenced star	Ib uplift to provi t(s) 1, 3. dance w sections ndard AN	at joint 4. de full bearing th the 2018 R502.11.1 a ISI/TPI 1.	g Ind					

- 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) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 6-8-0, Exterior(2E) 6-8-0 to 9-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLB7	Valley	1	1	I66625065 Job Reference (optional)

3-0-5

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:05 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



7-2-10



Scale = 1:29.1

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.26	Vert(TL)	n/a	-	n/a	999			
TCDL	10.0	Rep Stress Incr	YES		WB	0.09	Horiz(TL)	0.00	4	n/a	n/a			
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MP									
BCDL	10.0											Weight: 27 lb	FT = 20%	
LUMBER			4) TCLL: ASCE	7-16: Pr=20.0 p	sf (roof LL	.: Lum DOL=	1.15						
TOP CHORD	2x4 SP No.2			Plate DOL=1	.15); Pf=20.0 ps	f (Lum DC	L=1.15 Plate							
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	sidered for th	nis						
TOP CHORD	Structural wood she	eathing directly appl	ied or	design.										
	7-2-10 oc purlins.		6) Gable requir	es continuous bo	ottom chor	d bearing.							
BOT CHORD	Rigid ceiling directly	/ applied or 6-0-0 or	c /) Gable studs	spaced at 4-0-0	OC.								
	bracing.		8) I NIS TRUSS Na	is been designed	t tor a 10.0	psi bottom	do						
REACTIONS	(size) 1=7-3-3,	3=7-3-3, 4=7-3-3	Q	* This trues h	au nonconcurren	d for a liv	e load of 20 (us. Inef						
	Max Horiz 1=-67 (LC	C 12)	5	on the bottor	n chord in all are	as where	a rectandle	ры						
	Max Uplift 1=-21 (LC	C 21), 3=-21 (LC 20),	3-06-00 tall b	ov 2-00-00 wide v	will fit betw	een the bott	om						
	4=-75 (LC	C 14)		chord and ar	v other member	s.								
	Max Grav 1=102 (L	C 20), 3=102 (LC 2	1), 1	0) Provide mec	hanical connecti	on (by oth	ers) of truss t	0						
	4=541 (L	C 20)		bearing plate	e capable of with	standing 2	1 lb uplift at j	oint						
FORCES	(lb) - Maximum Con	npression/Maximum	ו	1, 21 lb uplift at joint 3 and 75 lb uplift at joint 4.										
		0.007	1) Beveled plate or shim required to provide full bearing										
TOP CHORD	1-2=-93/237, 2-3=-9	3/237		surface with	truss chord at joi	int(s) 1, 3.								
BOICHORD	1-4=-186/155, 3-4=	-186/155	1	2) This truss is designed in accordance with the 2018										
WEBS	2-4=-432/205			International Residential Code sections R502.11.1 and										
NOTES				R802.10.2 a	nd reterenced sta	andard AN	ISI/TPI 1.							
 Unbalance 	ed roof live loads have	e been considered for	or L	OAD CASE(S)	Standard								17.	

this design. 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 4-3-3, Exterior(2E) 4-3-3 to 7-3-3 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.



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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLB8	Valley	1	1	I66625066 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:05 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Scale = 1:26

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/	TPI2014	CSI TC BC WB Matrix-MP	0.09 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: 17 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD FORCES TOP CHORD BOT CHORD BOT CHORD WEBS	 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood sheat 4-9-13 oc purlins. Rigid ceiling directly a bracing. (size) 1=4-10-6, 3 Max Horiz 1=-43 (LC ¹/₂ Max Uplift 3=-7 (LC 16 Max Grav 1=87 (LC 20) (lb) - Maximum Comp Tension 1-2=-80/106, 2-3=-80/ 1-4=-86/89, 3-4=-86/8 2-4=-213/98 	thing directly applie applied or 6-0-0 oc 3=4-10-6, 4=4-10-6 10) 5), 4=-33 (LC 14) 20), 3=87 (LC 21), 4 oression/Maximum /106 39	5) 6) 7) 8) ed or 9) 4=298 11) 12) LOA	Unbalanced design. Gable requir Gable studs This truss ha on the bottor 3-06-00 tall k chord and ar Provide mec bearing plate and 33 lb up Beveled plat surface with This truss is International R802.10.2 a AD CASE(S)	snow loads have es continuous bo spaced at 4-0-0 o ts been designed ad nonconcurrent has been designe n chord in all area by 2-00-00 wide w hy other members hanical connectic e capable of withs lift at joint 4. e or shim requirer truss chord at join designed in acco Residential Code nd referenced sta Standard	been cor ttom chor oc. for a 10.0 with any d for a liv as where vill fit betw s. n (by oth ttanding 7 d to provint(s) 1, 3. rdance w e sections indard AN	sidered for t d bearing.) psf bottom other live loa e load of 20.1 a rectangle veen the bott ers) of truss i lb uplift at jo de full bearin ith the 2018 R502.11.1 a ISI/TPI 1.	his ads. Opsf to pint 3 g and					
NOTES 1) Unbalance this desig 2) Wind: AS Vasd=103 II; Exp B; and C-C	ed roof live loads have b n. CE 7-16; Vult=130mph (: 3mph; TCDL=6.0psf; BC Enclosed; MWFRS (env Exterior(2E) zone: cantile	been considered for 3-second gust) DL=6.0psf; h=25ft; velope) exterior zon ever left and right	Cat. e								and a	OR FESS	ROUT

- 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 stude exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. 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

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G minin July 2,2024

SEAL

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLD1	Valley	1	1	I66625067 Job Reference (optional)

Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

FORCES

WEBS

NOTES

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

1)

2)

BRACING

TCDL

BCLL

BCDL

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:05

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ID:?VRASUfm0qfd3oFPBHC5FHzRQud-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 16-11-6 8-5-11 16-7-4 0-4-2 8-5-11 8-1-9 4x5 = 3 2x4 II 2x4 II 15 16 2 Δ 7-1-0 6-9-14 12 10Γ 1280, -0 0 9 19 8 7 6 2x4 🛛 2x4 II 3x5 = 3x5 🖌 3x5. 2x4 II 16-11-6 Scale = 1:50.8 Spacing 2-0-0 CSI DEFL l/defl L/d PLATES GRIP (psf) in (loc) 20.0 Plate Grip DOL 1.15 TC 0.36 Vert(LL) n/a n/a 999 MT20 244/190 20.0 BC Lumber DOL 1 15 0.18 Vert(TL) n/a n/a 999 10.0 Rep Stress Incr YES WB 0.28 Horiz(TL) 0.00 5 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MSH 10.0 Weight: 76 lb FT = 20%3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 see Standard Industry Gable End Details as applicable, 2x4 SP No.3 or consult qualified building designer as per ANSI/TPI 1. 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate TOP CHORD Structural wood sheathing directly applied or DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 6-0-0 oc purlins. Cs=1.00: Ct=1.10 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc Unbalanced snow loads have been considered for this 5) bracing. desian. REACTIONS (size) 1=17-0-0, 5=17-0-0, 6=17-0-0, 6) Gable requires continuous bottom chord bearing. 8=17-0-0, 9=17-0-0 7) Gable studs spaced at 4-0-0 oc. Max Horiz 1=161 (LC 11) This truss has been designed for a 10.0 psf bottom 8) 1=-21 (LC 10), 6=-183 (LC 15), Max Uplift chord live load nonconcurrent with any other live loads. 9=-186 (LC 14) * This truss has been designed for a live load of 20.0psf 9) Max Grav 1=120 (LC 30), 5=82 (LC 21), on the bottom chord in all areas where a rectangle 6=521 (LC 6), 8=506 (LC 24), 3-06-00 tall by 2-00-00 wide will fit between the bottom 9=526 (LC 24) chord and any other members, with BCDL = 10.0psf. (Ib) - Maximum Compression/Maximum 10) Provide mechanical connection (by others) of truss to Tension bearing plate capable of withstanding 21 lb uplift at joint TOP CHORD 1-2=-145/261, 2-3=-102/196, 3-4=-103/176, 1, 186 lb uplift at joint 9 and 183 lb uplift at joint 6. 4-5=-108/226 11) Beveled plate or shim required to provide full bearing BOT CHORD 1-9=-137/131, 8-9=-137/131, 6-8=-137/131, surface with truss chord at joint(s) 1, 5. 5-6=-137/131 12) This truss is designed in accordance with the 2018 3-8=-321/0. 2-9=-397/221. 4-6=-396/219 ORT International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. Unbalanced roof live loads have been considered for LOAD CASE(S) Standard this design Wind: ASCE 7-16; Vult=130mph (3-second gust) A Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. SEAL II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 036322 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-

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G mm July 2,2024

and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com) Edenton, NC 27932

818 Soundside Road

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLD2	Valley	1	1	I66625068 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:05 ID:Th_ZgqfOm8nUgyqbk?jKoVzRQuc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Scale = 1:43.7

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.31 0.16 0.15	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: 63 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=14-7-3 7=14-7-3 Max Horiz 1=-138 (L Max Uplift 1=-23 (LC	eathing directly applie applied or 6-0-0 oc , 5=14-7-3, 6=14-7-3 , 8=14-7-3 C 10) 2 10), 6=-155 (LC 15	3) 4) ed or 5) , 6) 7) 8)	Truss desig only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. Gable requir Gable studs This truss ha	hed for wind load ids exposed to w a Industry Gable alified building di 7-16; Pr=20.0 ps 15); Pf=20.0 ps Is=1.0; Rough Ca =1.10 snow loads have es continuous bo spaced at 4-0-0 is been designed	s in the p ind (norm End Deta esigner as sf (roof LL (Lum DC (Lum DC tat B; Fully been cor ttom chor bc. for a 10.0	lane of the trr al to the face is as applica s per ANSI/T .: Lum DOL= 0L=1.15 Plate Exp.; Ce=0. asidered for t d bearing.	uss), ble, Pl 1. 1.15 2; his				<u>.</u>	
	8=-158 (L Max Grav 1=123 (L 6=457 (L 8=457 (L	LC 14) C 25), 5=98 (LC 24), C 21), 7=411 (LC 24) C 20)	9)),	* This truss h on the bottor 3-06-00 tall b	ad nonconcurrent has been designe n chord in all are by 2-00-00 wide v	d for a liv as where vill fit betv	e load of 20. a rectangle veen the bott	ias. Opsf om					
FORCES	(lb) - Maximum Con	npression/Maximum	10) Provide mec	hanical connection	on (by oth	ers) of truss	to					
TOP CHORD BOT CHORD WEBS NOTES	1-2=-154/149, 2-3=- 4-5=-122/113 1-8=-63/127, 7-8=-6 5-6=-63/101 3-7=-231/0, 2-8=-37	.171/124, 3-4=-171/1 3/101, 6-7=-63/101, 5/197, 4-6=-375/195	12, 11 ; 12	bearing plate 1, 158 lb upli) Beveled plat surface with) This truss is International R802.10.2 at	e capable of withs ft at joint 8 and 1 e or shim require truss chord at joi designed in acco Residential Code nd referenced sta	standing 2 55 lb uplit d to provient(s) 1, 5. rdance w e sections undard AN	3 lb uplift at j it at joint 6. de full bearin ith the 2018 is R502.11.1 a ISI/TPI 1.	oint g and			- 11	WITH CA	ROL

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: AŠCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 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 14-7-3 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

LOAD CASE(S) Standard



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A Mi Tek Affilia 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLD3	Valley	1	1	I66625069 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Tue Jul 02 10:00:05 ID:kUxM45s?bF21LX?KCRTFVAzRQqU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:39.3

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing2Plate Grip DOL1Lumber DOL1Rep Stress IncrYCodeII	-0-0 .15 .15 /ES RC2018/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 shea 6-0-0 oc purlins. Rigid ceiling directly is bracing. (size) 1=12-2-6, 7=12-2-6, Max Horiz 1=-115 (LC Max Uplift 1=-32 (LC 6=-136 (LC Max Grav 1=94 (LC 2 (LC 21), 7: 20)	athing directly applied o applied or 10-0-0 oc 5=12-2-6, 6=12-2-6, 8=12-2-6 C 12) 10), 5=-4 (LC 11), C 15), 8=-139 (LC 14) 25), 5=73 (LC 24), 6=43 =261 (LC 21), 8=435 (L	 3) Truss desig only. For st see Standal or consult q 4) TCLL: ASCI Plate DOL= DOL=1.15); Cs=1.00; Cf 5) Unbalancec design. 6) Gable requi 7) Gable studs 8) This truss h chord live lc 9) * This truss for 3:06-00 tall or botto 	ned for wind loads uds exposed to wir d Industry Gable E ualified building de 57-16; Pr=20.0 ps 1.15); Pf=20.0 ps 1.15); Pf=20.0 psf Is=1.0; Rough Cat =1.10 snow loads have I res continuous bott spaced at 4-0-0 o as been designed ad nonconcurrent has been designed m chord in all area by 2-00-00 wide w	in the p Id (norm nd Deta signer a: (roof LL Lum DC B; Fully been cor om chor C. or a 10. with any I for a liv s where Il fit betw	lane of the tru al to the face) ils as applicat s per ANSI/TF .: Lum DOL=1 Exp.; Ce=0.9 asidered for the d bearing. D psf bottom other live load e load of 20.0 a rectangle veen the botto	ss l, ole, ol 1. l. 15 l, 15 l, 15 ds. opsf om					
FORCES	(lb) - Maximum Comp Tension	pression/Maximum	10) Provide me	chanical connection	n (by oth	ers) of truss to	D					
TOP CHORD	1-2=-119/102, 2-3=-2 4-5=-92/63	216/117, 3-4=-216/117,	1, 4 lb uplift	at joint 5, 139 lb up	olift at joi	nt 8 and 136	lb					
BOT CHORD	1-8=-32/79, 7-8=-32/ 5-6=-32/73	73, 6-7=-32/73,	11) Beveled pla	te or shim required	to provi	de full bearing	9				mm	um,
WEBS NOTES	3-7=-174/0, 2-8=-397	7/217, 4-6=-397/217	12) This truss is Internationa	designed in accor	dance w sections	ith the 2018 R502.11.1 a	nd			- N	TH CA	ROLI

- Unbalanced roof live loads have been considered for this design.
 Wind: ASCE 7-16; Vult=130mph (3-second gust)
- 2) Wind: ASCE 1210, Valle 150ml (3-section 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) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 9-2-6, Exterior(2E) 9-2-6 to 12-2-6 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
- International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLD4	Valley	1	1	I66625070 Job Reference (optional)

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:05 ID:kUxM45s?bF21LX?KCRTFVAzRQqU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



9-9-0

Scale = 1:33.4

Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15			0.47	Vert(LL)	n/a	-	n/a	999	M120	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.43	Vert(IL)	n/a	-	n/a	999		
		10.0	Rep Stress Incr	TES		VVB	0.20	Horiz(TL)	0.01	4	n/a	n/a		
BCLL BCDL		10.0	Code	IRC2	J18/1PI2014	Matrix-MSH							Weight: 37 lb	FT = 20%
					4) TCLL: ASCE	7-16: Pr=20.0 p	sf (roof Ll	.: Lum DOL=	1.15					
TOP CHORD	2x4 SP N	o.2			Plate DOL=1	1.15); Pf=20.0 ps	f (Lum DC	DL=1.15 Plate						
BOT CHORD	2x4 SP N	0.2			DOL=1.15);	Is=1.0; Rough Ca	at B; Fully	Exp.; Ce=0.9	9;					
OTHERS	2x4 SP N	0.3			Cs=1.00; Ct=	=1.10								
BRACING					5) Unbalanced	snow loads have	e been co	nsidered for th	nis					
TOP CHORD	Structura	l wood she	athing directly applie	d or	design.			al la sue des su						
	9-9-0 oc	purlins.			 Gable requir Coble stude 	es continuous po	ottom choi	d bearing.						
BOT CHORD	 Rigid ceil bracing. 	ing directly	applied or 6-0-0 oc		 B) This truss has a structure 	spaced at 4-0-0 as been designed	d for a 10.	0 psf bottom						
REACTIONS	(size)	1=9-9-10	, 3=9-9-10, 4=9-9-10		Chord live loa	ad nonconcurren	t with any	other live loa	ds. Jocf					
	Max Horiz	1=-91 (LC	C 10)		on the bottor	n chord in all are	as where	a rectande	Jpsi					
	Max Uplift	1=-59 (LC	C 21), 3=-59 (LC 20),		3-06-00 tall b	ov 2-00-00 wide v	will fit bety	veen the bott	om					
		4=-114 (L	.C 14)		chord and ar	ny other member	S.							
	Max Grav	1=88 (LC	20), 3=88 (LC 21), 4	=804	10) Provide mec	hanical connection	on (by oth	ers) of truss t	0					
500050	(11-)	(LC 20)			bearing plate	e capable of with	standing 5	59 lb uplift at j	oint					
FORCES	(ID) - IVIAX	amum Con	pression/iviaximum		1, 59 lb uplif	t at joint 3 and 11	4 lb uplift	at joint 4.						
	1-2124	/306 2-3	124/396		11) Beveled plat	e or shim require	ed to provi	de full bearing	g					
BOT CHORD	1-4=-261	/180_3-4=-	261/180		12) This truce in	truss chord at joi	Int(S) 1, 3.	ith the 2019						
WEBS	2-4=-669	/283	2017100		International	Residential Cod		R502 11 1 a	nd					
NOTES					R802.10.2 a	nd referenced sta	andard Al	ISI/TPI 1.	ina					
1) Unbalanc	ed roof live	loads have	been considered for		LOAD CASE(S)	Standard								
this desig	in.					etandara								1911
2) Wind: AS	, CE 7-16; Vu	It=130mph	(3-second gust)										IN TH CA	Roille
Vasd=10	3mph; TCDL	.=6.0psf; B	CDL=6.0psf; h=25ft;	Cat.								A	A	Sin Inter
II; Exp B;	Enclosed; N	/WFRS (er	nvelope) exterior zon	Э							/	53	FEE	NI Sin
and C-C	Exterior(2E)	0-0-0 to 3-	0-0, Exterior(2R) 3-0	-0							4	D		Bille
to 6-9-10	, Exterior(2E	:) 6-9-10 to	9-9-10 zone; cantile	/er								() j		- Je
exposed.	Griffer men	bers and f	callell and right								-		SEA	
reactions	shown: Lun	hber DOL=	1.60 plate grip									:	0262	122 : =
DOL=1.6	0										-		0303	22 : :
3) Truss de	signed for w	rind loads i	n the plane of the true	SS									1	1 3
only. For	studs expos	sed to wind	(normal to the face)									1	N. En.	Richi
see Stan	dard Industry	y Gable En	d Details as applicab	le,								25	S. GIN	EFFICAN
or consul	t qualified bu	uilding desi	oner as ner ANSI/TP	11								1	110	· · · · · ·

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

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G minin July 2,2024

Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLD5	Valley	1	1	I66625071 Job Reference (optional)

3-1-0

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:05 ID:CgVkHRtdMZAuzhaXm9_U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



7-4-3



Scale = 1:29.3

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	3/TPI2014	CSI TC BC WB Matrix-MP	0.27 0.27 0.09	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 27 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 w 7-4-3 oc pur Rigid ceiling bracing. (size) 1: Max Horiz 1: Max Horiz 1: Max Uplift 1: 4: Max Grav 1: 4:	2 2 3 dins. directly =7-4-13, =68 (LC =-23 (LC =-77 (LC =557 (LC	athing directly applied applied or 6-0-0 oc 3=7-4-13, 4=7-4-13 11) 21), 3=-23 (LC 20), 14) 2 20), 3=102 (LC 21), 20)	4) 5) d or 6) 7) 8) 9) 9)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. Gable requirt Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss ha on the botton 3-06-00 tall b chord and an) Provide mect	7-16; Pr=20.0 psf (.15); Pf=20.0 psf (.15); Pf=20.0 psf (.10 snow loads have be es continuous botto spaced at 4-0-0 oc. s been designed fo id nonconcurrent w has been designed in n chord in all areas y 2-00-00 wide will by other members. hanical connection	roof LL um DC 3; Fully een cor m chor r a 10.0 ith any or a liv where fit betv (by oth	: Lum DOL= ² IL=1.15 Plate Exp.; Ce=0.9 isidered for th d bearing.) psf bottom other live load e load of 20.0 a rectangle reen the botto ers) of truss t	1.15); ds.)psf om o					
FORCES TOP CHORD BOT CHORD WEBS NOTES	(Ib) - Maxim Tension 1-2=-96/246 1-4=-193/15 2-4=-445/21	um Com 5, 2-3=-96 58, 3-4=-7 1	pression/Maximum 5/246 193/158	11 12	1, 23 lb uplift Beveled plate surface with This truss is International R802.10.2 ar	at joint 3 and 77 lb e or shim required t truss chord at joint(designed in accorda Residential Code s ad referenced stance	uplift a o provi s) 1, 3. ance w ections lard AN	t joint 4. de full bearing th the 2018 R502.11.1 a ISI/TPI 1.	nd					

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

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 4-4-13, Exterior(2E) 4-4-13 to 7-4-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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. LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLD6	Valley	1	1	I66625072 Job Reference (optional)

2-1-0

Run: 8,73 S Jun 13 2024 Print: 8,730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:06 ID:CgVkHRtdMZAuzhaXm9_U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



2x4 🖌 2x4 💊

4-11-6

Scale = 1:26.2

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 IRC20	18/TPI2014	CSI TC BC WB Matrix-MP	0.09 0.12 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 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: 4-11-6 oc purlins. Rigid ceiling directly bracing. (size) 1=5-0-0, 3 Max Horiz 1=-44 (LC Max Upliff 3=-6 (LC Max Grav 1=-89 (LC (LC 21)	athing directly applie applied or 6-0-0 oc 3=5-0-0, 4=5-0-0 : 10) 15), 4=-35 (LC 14) 20), 3=89 (LC 21), 4	ed or 9	 Unbalanced design. Gable requir Gable studs This truss ha chord live lo. * This truss li on the bottor 3-06-00 tall li chord and ai Provide mec bearing plate and 35 lb up Beveled plate surface with 	snow loads hav es continuous b spaced at 4-0- as been design ad nonconcurre has been design m chord in all al by 2-00-00 widd hanical connec e capable of wit lift at joint 4. e or shim requii	ve been cor pottom chor 0 oc. ed for a 10.0 ent with any ned for a liv reas where a will fit betw ers. will fit betw ers. tion (by oth- hstanding 6 red to provio oint(s) 1 3	sidered for t d bearing.) psf bottom other live loa e load of 20. a rectangle veen the bott ers) of truss lb uplift at jo de full bearin	this ads. .0psf tom to pint 3 ng					
FORCES TOP CHORD BOT CHORD WEBS	(Ib) - Maximum Com Tension 1-2=-82/112, 2-3=-8: 1-4=-91/93, 3-4=-91/ 2-4=-224/105	pression/Maximum 2/112 /93		 Inis truss is International R802.10.2 a OAD CASE(S) 	designed in acc Residential Co nd referenced s Standard	cordance wo ode sections standard AN	th the 2018 R502.11.1 a ISI/TPI 1.	and					

NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 3) only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

ALLELI C THE ADDRESS OF THE TAXABLE PARTY WITTER WALL SEAL 036322 GI minin July 2,2024

Page: 1

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Job	Truss	Truss Type	Qty	Ply	175 Serenity-Roof-B326 B CP TMB BNS GLH
24060145-01	VLD7	Valley	1	1	I66625073 Job Reference (optional)

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc, Tue Jul 02 10:00:06 ID:CgVkHRtdMZAuzhaXm9_U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



3x5 =





2x4 🍫 2x4 💊

2-6-10

Scale = 1:25.1

Plate Offsets (X, Y): [2:0-2-8,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-MP	0.05 0.05 0.00	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 7 lb	GRIP 244/190 FT = 20%
BCDL LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD BOT CHORD NOTES 1) Unbalance this design 2) Wind: ASC Vasd=1037 II; Exp B; E and C-C E exposed ; a members a Lumbers D	2x4 SP No.2 2x4 SP No.2 Structural w 2-6-10 oc pr Rigid ceiling bracing. (size) 1 Max Horiz 1 Max Uplift 1 Max Grav 1 (Ib) - Maxim Tension 1-2=-152/65 1-3=-37/110 droof live Ioa Erclosed; MW xterior(2E) zo end vertical le and forces & I	10.0 2 2 3 3 4 4 4 4 4 5 4 5 4 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5	athing directly applied applied or 10-0-0 oc =2-7-3 10) 4), 3=-9 (LC 15) : 20), 3=118 (LC 21) pression/Maximum 52/65 been considered for (3-second gust) DL=6.0psf; h=25f; (velope) exterior zone ever left and right ht exposed;C-C for ior reactions shown; i=1 e0	7) 8) 9) 1 or 11 12 LC Cat.	Gable studs s This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an) Provide mect bearing plate and 9 lb uplift) Beveled plate surface with 1) This truss is 0 International R802.10.2 ar	spaced at 4-0-0 oc. s been designed fo d nonconcurrent w as been designed in chord in all areas y 2-00-00 wide will y other members. nanical connection capable of withsta at joint 3. e or shim required t russ chord at joint(designed in accord Residential Code s d referenced stand Standard	or a 10.0 ith any for a liv where fit betw (by oth nding 9 o provio s) 1, 3. ance w sections Jard AN	0 psf bottom other live load e load of 20.0 a rectangle ers) of truss t lb uplift at joi de full bearing ith the 2018 R502.11.1 a ISI/TPI 1.	ds. ppsf om oint 1 g nd				Weight: 7 lb	FT = 20%
 Truss desionly. For sister standard or consult or consult of TCLL: ASC Plate DOL=1.157 Cs=1.00; C Unbalance design. Gable required 	igned for wind studs exposed and Industry G qualified build CE 7-16; Pr=2 =1.15); Pf=20); Is=1.0; Rou 2t=1.10 id snow loads uires continuo	I loads in l to wind able End ling desig 0.0 psf (I 0 psf (Lu gh Cat B have be us bottor	the plane of the trus (normal to the face), I Details as applicabl (nor as per ANSI/TPI oof LL: Lum DOL=1. Im DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for this n chord bearing.	s e, 1. 15 S							ATTITUTE.		SEA 0363	L 22 ILBERTIII V 2,2024

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