

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 24040186-01 133 Serenity-Roof-B330 B COP 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: I65567105 thru I65567149

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

North Carolina COA: C-0844



May 14,2024

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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	A	Common	4	1	Job Reference (optional)	165567105

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:46 ID:CttcSzQgwNcSj9X9hY?FsHzF_uO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and property incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com) May 14,2024



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	AGE	Common Supported Gable	1	1	Job Reference (optional)	165567106

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:47 ID:94aeZ53wRfHxaJ4LIBSgWSzF_tZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



24-26=-144/59, 26-27=0/23

2-46=-44/167, 45-46=-44/167

44-45=-44/167, 43-44=-44/167,

42-43=-44/167, 41-42=-44/167,

40-41=-44/167, 38-40=-44/167,

37-38=-44/167, 36-37=-44/167,

34-36=-44/167, 33-34=-44/167,

32-33=-44/167, 31-32=-44/167,

30-31=-44/167, 29-30=-44/167,

28-29=-44/167, 26-28=-44/167



Continued on page 2

42=39-11-0, 43=39-11-0,

44=39-11-0, 45=39-11-0,

46=39-11-0, 47=39-11-0,

29=-37 (LC 15), 30=-46 (LC 15),

31=-43 (LC 15), 32=-44 (LC 15),

33=-44 (LC 15), 34=-43 (LC 15),

35=-48 (LC 15), 36=-36 (LC 15),

38=-39 (LC 14), 39=-47 (LC 14), 40=-43 (LC 14), 41=-44 (LC 14), 42=-44 (LC 14), 43=-43 (LC 14), 44=-46 (LC 14), 45=-34 (LC 14),

46=-96 (LC 14), 51=-21 (LC 10)

Max Horiz 2=-165 (LC 15), 51=-165 (LC 15)

Max Uplift 2=-21 (LC 10), 28=-80 (LC 15),

51=39-11-0

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 buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANS/ITPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

BOT CHORD

A MiTek Affil 818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	AGE	Common Supported Gable	1	1	Job Reference (optional)	165567106

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this 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) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 2, 39 lb uplift at joint 38, 47 lb uplift at joint 39, 43 lb uplift at joint 40, 44 lb uplift at joint 41, 44 lb uplift at joint 42, 43 lb uplift at joint 43, 46 lb uplift at joint 44, 34 lb uplift at joint 45, 96 lb uplift at joint 46, 36 lb uplift at joint 36, 48 lb uplift at joint 35, 43 lb uplift at joint 34, 44 lb uplift at joint 31, 46 lb uplift at joint 30, 37 lb uplift at joint 29, 80 lb uplift at joint 28 and 21 lb uplift at joint 2.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:47 ID:94aeZ53wRfHxaJ4LIBSgWSzF_tZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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



Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	В	Attic	3	1	Job Reference (optional)	165567107

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:47 ID:6tPM5Ir?FJUMxDStPvqO5SzF_Wb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 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		тс	0.48	Vert(LL)	-0.29	18-19	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.98	Vert(CT)	-0.51	19-21	>853	180	MT20HS	187/143	
TCDL	10.0	Rep Stress Incr	YES		WB	0.97	Horz(CT)	0.10	14	n/a	n/a			
BCLL	0.0*	Code	IRC201	18/TPI2014	Matrix-MSH		Attic	-0.23	18-32	>788	360			
BCDL	10.0											Weight: 356 lb	FT = 20%	
		•			24-704/0 2 22	00/E / 0	22.22 05/	107	0) Thi	truce h	oo hoo	n decigned for a	10.0 pof bottom	
	OVE ED No 2 *Evoor	+* 7 10.000 00 0400	v		1-32-0/013 16-19	=-00/040	7 0-18-0/100	107,	s) The	rd live la	as bee	an designed for a	any other live los	ade
TOP CHORD		1 7-10:2x8 SP 2400	F	-	+-32=0/913, 10-10	1-154	19/2	,	10) * TF	is truss	has he	en designed for	ally other live load	Jus. Onef
	2.0E, 0-9.2X4 OF NO	1.2 t* 32-18:2v/ SP No '	2	4	4-37=-1397/10 36	3-37=-11	37/14		00 t	he hotto	m cho	rd in all areas wh	ere a rectande	0031
BOT CHORD	27-22-2v4 SP 2400F	2 0F	۷,	1	36-38=-1221/135	8-38=-1	244/133		3-06	S-00 tall	by 2-0	0-00 wide will fit	between the bott	tom
WERS	2v4 SP No 3 *Excen	1* 4-33 9-16-2v6 SP			2-34=0/1954, 12-1	5=0/214	8. 17-18=0/1	302.	cho	rd and a	inv oth	er members.		
WEBO	No 2 4-8-2x4 SP No	1 2		3	31-32=0/1241. 17	19=-131	0/0.	,	11) Cei	ing dea	d load	(5.0 psf) on men	ber(s). 8-9. 4-37	·.
PRACING					30-31=-1422/0, 19	-20=0/74	45, 29-30=0/8	341,	36-3	37. 36-3	8. 8-38	: Wall dead load	d (5.0psf) on mer	nber
TOP CHORD	Structural wood she	athing directly applie	dor		20-21=-617/0, 28-	29=-713/	0, 21-23=-49	/309,	(s).4	4-32, 9-1	18		(I)	
	4-3-14 oc purlins e	xcept end verticals	and		26-28=0/481, 25-2	26=-187/0), 23-24=-132	2/17,	12) Bot	om cho	rd live	load (40.0 psf) a	nd additional bott	tom
	2-0-0 oc purlins (4-0	-4 max.): 5-7.		e	6-36=-548/162, 5-	37=0/742	2, 7-38=0/166	б,	cho	rd dead	load (5.0 psf) applied o	nly to room. 30-3	32,
BOT CHORD	Rigid ceiling directly	applied or 2-2-0 oc		Ę	5-36=-526/1454, 7	-36=-50	3/1316		28-3	30, 25-2	8, 24-2	25, 21-24, 19-21,	18-19	
	bracing.		N	IOTES					13) This	s truss is	s desig	ned in accordan	ce with the 2018	
WEBS	1 Row at midpt	4-36, 8-36	1) Unbalanced	roof live loads hav	/e been o	considered fo	r	Inte	rnationa	I Resid	dential Code sec	ions R502.11.1 a	and
JOINTS	1 Brace at Jt(s): 19,			this design.					R80	2.10.2 a	and ref	erenced standar	d ANSI/TPI 1.	
	30, 21, 28, 36		2) Wind: ASCE	7-16; Vult=130m	oh (3-sec	ond gust)		14) Gra	phical p	urlin re	presentation doe	es not depict the	size
REACTIONS	(size) 14=0-5-8,	35=0-5-8		Vasd=103mp	oh; TCDL=6.0psf;	BCDL=6	.0psf; h=25ft;	; Cat.	OF T	ne orien	tation (of the purlin along	j the top and/or	
	Max Horiz 35=-292 (LC 12)		II; Exp B; En	closed; MWFRS (envelope	e) exterior zor	ne			u.	d for 1 /260 dofla	otion	
	Max Grav 14=2181	(LC 48), 35=2204 (LC	C 48)	and C-C Exte	erior(2E) -0-10-8 t	o 2-9-0,	Interior (1) 2-	9-0					Juon.	
FORCES	(lb) - Maximum Com	pression/Maximum		to 7-8-8, Exte	erior(2R) 7-8-8 to	14-11-8,	Interior (1)		LOAD	ASE(S) Sta	ndard		
	Tension	•		14-11-8 to 20	J-2-3, Exterior(2R) 20-2-3		erior					11.	
TOP CHORD	1-2=0/37, 2-3=-2487	//0, 3-4=-2739/0,		(1) 27-5-3 l0	33-6-0, Exterior(2	(E) 33-10-	0 10 37 - 1 - 8 20	one;					1111	
	4-5=-1822/67, 5-6=-2	2761/392,		right exposed	t and fight expose	s and for						IN THUF	ROY	
	6-7=-2761/392, 7-8=	-1666/270,		for reactions	shown: Lumber F) plate grip					A	in the	
	8-9=-2209/24, 9-11=	-2916/0, 11-12=-285	56/0,	DOL=1.60	0.10111, 2011001 2		plate glip				~~	FESS	O.	2
	12-13=0/37, 2-35=-2	2394/0, 12-14=-2378/	^{/0} 3) TCLL: ASCE	7-16; Pr=20.0 ps	f (roof LL	.: Lum DOL=	1.15		6	12		1 h	27
BOT CHORD	34-35=-241/292, 33-	-34=0/1918,		Plate DOL=1	.15); Pf=20.0 psf	(Lum DC	L=1.15 Plate	•		5				2
	31-33=-105/1502, 28	9-31=0/3373, - 0/4015 20 22 0/4	600	DOL=1.15);	s=1.0; Rough Cat	B; Fully	Exp.; Ce=0.9	9;		Ξ		SEA	1. ÷	Ξ
	17 20-0/2760 16 17	5=0/4915, 20-25=0/4	000, 220	Cs=1.00; Ct=	=1.10					= =		0000		- 8-
	14-1510/144 30-3	7=0/1938, 13-10=0/2 2529/312	230, 4) Unbalanced	snow loads have	been cor	nsidered for th	nis		1		0363	22 :	-
	28-30=-2307/0 25-2	28=-3245/0.		design.						-	- 8			-
	24-25=-3245/0. 21-2	24=-3245/0.	5) This truss ha	s been designed	for great	er of min roof	live			1	· •	ain	-
	19-21=-2513/0, 18-1	9=-986/85		load of 12.0	pst or 1.00 times f	at roof lo	bad of 20.0 p	st on			3.5	NGIN	FERIN	2
	, -		~	overnangs n	on-concurrent with	n other liv	/e loads.	-			11	2/0	E. F.	
			6) Provide adec	Juale drainage to	prevent \	water ponding	у. А				A G	illbuin	
			/) All plates are	20 plates unles	totherwi	wise indicated	u.				111111	in the	
			0	<i>i</i> All plates ale	JAJ WITZU UIIIES	5 ULIEI WI	se muicateu.						A 20	

- All plates are MT20 plates unless otherwise indicated. 7)
- All plates are 3x5 MT20 unless otherwise indicated. 8)

May 14,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **PCB Building Component Scitut Information**. Building from the Structure Building Component Advancement description (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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	B1	Piggyback Base	5	1	Job Reference (optional)	165567108

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:48 ID:jCQDRPFmxy5us2K9CGvbovzF_Un-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



	8-0-3	17-6-13	1	27-1-6	1	36-3-0	1
	8-0-3	9-6-10	I	9-6-9	T	9-1-10	
Scale = 1:72.3							
Plate Offsets (X, Y): [4:0-3-	12,0-1-12], [6:0-3-12,0-1-12]						

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	2-0-0 1.15 1.15 YES IRC2018	5/TPI2014	CSI TC BC WB Matrix-MSH	0.89 0.80 0.88	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.24 -0.39 0.07	(loc) 12-14 12-14 9	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 MT20HS Weight: 252 lb	GRIP 244/190 187/143 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.1 2x4 SP No.3 *Except 14-4,12-4,12-5,12-6, Structural wood shea 2-2-0 oc purlins, exc 2-0-0 oc purlins (3-6 Rigid ceiling directly	t* 10-6:2x4 SP No.2 athing directly applied cept end verticals, an -12 max.): 4-6. applied or 10-0-0 oc	2) d or id	Wind: ASCE Vasd=103mp II; Exp B; End and C-C Exte to 7-8-8, Exte 14-11-8 to 20 (1) 27-5-3 to zone; cantiler and right exp MWFRS for 1	7-16; Vult=130mph bh; TCDL=6.0psf; B closed; MWFRS (er prior(2E) -0-10-8 to rrior(2R) 7-8-8 to 1- 0-2-3, Exterior(2R) 3 32-5-12, Exterior(2 ver left and right ex osed;C-C for memi eactions shown; Lu	a (3-sec CDL=6 nvelope 2-9-0, 1 4-11-8, 20-2-3 E) 32-5 posed posed posed posed	cond gust) .0psf; h=25ft; e) exterior zor Interior (1) 2-9 Interior (1) to 27-5-3, Inte is-12 to 36-1-4 ; end vertical d forces & DOL=1.60 pla	; Cat. ne 9-0 erior left	13) This Inte R80 14) Gra or ti bott	s truss is rnationa 02.10.2 a phical p ne orient om chor CASE(S)	desig I Resid and ref urlin re ation o d.) Sta	ned in accordanc dential Code sect erenced standard presentation doe of the purlin along ndard	e with the 2018 ions R502.11.1 a I ANSI/TPI 1. s not depict the s the top and/or	and size
WEBS REACTIONS	bracing. 1 Row at midpt (size) 9= Mecha Max Horiz 15=-283 (I Max Uplift 9=-81 (LC Max Gray 9=1713 (L	3-15, 7-9, 4-14, 5-12 nical, 15=0-5-8 LC 12) 15), 15=-90 (LC 14) C 47), 15=1770 (LC	3) 47)	grip DOL=1.6 TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced s	50 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	.: Lum DOL= ⁻ DL=1.15 Plate Exp.; Ce=0.9 nsidered for th	1.15); nis						
FORCES	(lb) - Maximum Com	pression/Maximum	5)	This truss ha	s been designed fo	r great	er of min roof	live						
TOP CHORD	1-2=0/37, 2-3=-244/1 4-5=-1872/281, 5-6= 6-7=-2314/314, 7-8= 2-15=-301/133, 8-9=	119, 3-4=-2119/290, -1872/281, -358/145, -353/135	6) 7) 8)	overhangs no Provide adec All plates are	on-concurrent with puate drainage to pu MT20 plates unles	t roof lo other liv revent v s other	bad of 20.0 ps ve loads. water ponding wise indicate	st on g. d.					1111	
BOT CHORD WEBS	14-15=-191/1491, 12 10-12=-36/1485, 9-1 3-15=-2121/122, 7-9 4-14=-118/474, 3-14 4-12=-133/687, 5-12 6-12=-142/553, 6-10	2-14=-140/1417, 0=-36/1735 =-2135/76, =-98/384, =-687/183, =-138/698,	8) 9) 10)	* This truss ha * This truss h on the botton 3-06-00 tall b chord and an Refer to girde	as been designed to as been designed to a chord in all areas y 2-00-00 wide will y other members, v er(s) for truss to trus	ith any for a liv where fit betw with BC ss conr	other live load e load of 20.0 a rectangle veen the botto DL = 10.0psf nections.	ds.)psf om		4	A. I.I.	SEA	ROLL	
NOTES 1) Unbalance this desigr	7-10=-279/270 ed roof live loads have h.	been considered for	11) 12)	 Provide mecl bearing plate 9. One H2.5A S recommende UPLIFT at jt(does not con 	hanical connection capable of withsta simpson Strong-Tie d to connect truss s) 15. This connect sider lateral forces.	(by oth nding 8 connec to beari ion is fo	ers) of truss to 1 lb uplift at jo ctors ing walls due or uplift only a	o oint to and		111111		0363	ER REALIN	unnun,

munn May 14,2024

G

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)

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	B1GE	Piggyback Base Supported Gable	1	1	Job Reference (optional)	165567109

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:48 ID:va6oJ_bKLZdwDLTYr9P9wpzF_UL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



-	-	-		-	
0	<u>c</u>			n	
- 51	n		-		

Scale = 1:69.7 Plate Offsets (X, Y): [8:0-4-8,0-2-4], [16:0-4-8,0-2-4], [24:Edge,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/	TPI2014	CSI TC BC WB Matrix-MR	0.48 0.25 0.24	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a -0.01	(loc) - - 24	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 326 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD WEBS	2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N 35-12,34- 4 SP No.: Structura 6-0-0 oc 2-0-0 oc Rigid ceil bracing. 1 Row at	lo.2 lo.3 lo.3 *Excep 13,32-14,3 2 l wood shea purlins, exc purlins (6-0 ing directly midpt	t* 1-15,37-11,38-10,39 athing directly applie cept end verticals, ar -0 max.): 8-16. applied or 6-0-0 oc 12-35, 13-34, 14-32, 15-31, 17-30, 11-37, 10-38, 9-39, 7-40	-9:2x d or ^{id} FOF TOF	R CES P CHORD	Max Grav 24 2(3(3(3(4(4(42 44) (lb) - Maximu Tension 2-45=-143/8 3-4=-72/113 6-7=-186/29 9-10=-179/2	4=644 (LC 10), 6=169 (LC 26), 8=230 (LC 45), 0=235 (LC 45), 2=238 (LC 40), 5=230 (LC 40), 8=238 (LC 40), 0=235 (LC 43), 2=229 (LC 43), 4=247 (LC 12), um Compressio (3, 1-2=0/37, 2- 3, 4-5=-108/158 10, 7-8=-215/34 (97, 10-11=-175) (297, 12-13=-13)	25=634 (LC 27=182 (LC 29=231 (LC 31=228 (LC 37=229 (LC 37=229 (LC 41=232 (LC 41=232 (LC 43=181 (LC 45=202 (LC con/Maximum 3=-92/97, , 5-6=-145/2 1, 8-9=-179/ 9/297, 70/297	13), 53), 45), 54), 40), 40), 54), 43), 53) 21, 297,	WEBS NOTES 1) Unb this 2) Win Vas II; E and to 7 14-7	alanced design. d: ASCE d=103m xp B; Er C-C Co -6-13, C 11.8 to 2	12-35: 14-32: 17-30: 19-28: 21-26: 11-37: 9-39= 5-42= 1 roof li 5 7-16; orner(3: corner(3: corner(3: corner(2))	=-190/49, 13-34 =-198/58, 15-31 =-198/58, 15-31 =-195/73, 18-29 =-197/90, 20-27 =-152/96, 22-25 =-189/50, 10-38 :173/40, 7-40=-1 -197/90, 4-43=-1 ve loads have b : Vult=130mph (; 2DL=6.0psf; BCI d; MWFRS (env: E) -0-10-8 to 2-5 3R) 7-6-13 to 14 Correg(2R) 20-	=-189/50, =-188/62, =-204/98, =-156/89, =-287/253, =-198/55, 195/69, 6-41=-204/99, 161/88, 3-44=-150/121 een considered for 3-second gust) DL=6.0psf; h=25ft; Cat. elope) exterior zone 9-0, Exterior(2N) 2-9-0 I-11-8, Exterior(2N)
REACTIONS	(size) Max Horiz Max Uplift	24=36-3-C 27=36-3-C 30=36-3-C 34=36-3-C 44=36-3-C 44=36-3-C 44=36-3-C 45=-283 (24=-660 (26=-64 (L 28=-65 (L 30=-49 (L) 30=-49 (L) 30=-49 (L) 30=-25 (L) 30=-25 (L) 38=-31 (L) 43=-55 (L) 43=-57 (L) 43=-51 (L)), $25=36-3-0$, $2e=36-$), $28=36-3-0$, $29=36-$), $31=36-3-0$, $32=36-$), $35=36-3-0$, $40=36-$), $42=36-3-0$, $40=36-$), $42=36-3-0$ LC 12) LC 13), $25=-540$ (LC 15 C 15), $27=-68$ (LC 16 C 15), $29=-74$ (LC 15 C 15), $21=-74$ (LC 15 C 15), $31=-22$ (LC 11 C 10), $37=-26$ (LC 11 C 10), $40=-45$ (LC 14 C 14), $42=-68$ (LC 14 C 14), $44=-164$ (LC 1 LC 10)	3-0, 3-0, 3-0, 3-0, 3-0, 3-0, 10), 5), 5), 5), 5), 10), 1), 1), 1), 1),	CHORD	11-121739 13-14=-1799 15-16=-1799 17-18=-1866 19-2021777 21-22=-2177 23-24=-3537 44-45=-2027 42-43=-2027 40-41=-2027 38-39=-2027 38-39=-2027 32-34=-2027 24-25=-2027 24-25=-2027	297, 14-15=-11 (297, 14-15=-11 (297, 16-17=-2' (298, 18-19=-16 (217, 20-21=-16 (217, 20-21=-16 (217, 20-21=-16 (217, 20-21=-16 (217, 20-21 (196, 43-44=-20 (196, 43-44=-20 (196, 34-45=-20 (196, 34-35=-20 (196, 27-28=-20 (196, 25-26=-20 (196)	19/297, 19/297, 15/341, 58/255, 94/204, 52/351, 02/196, 02/196, 02/196, 02/196, 02/196, 02/196, 02/196, 02/196, 02/196,		36 vert forc DOI	rior(2N) 1-4 zone ical left a es & MV L=1.60 p	02-2-5, 27-6- ; canti and rig VFRS late gu	SEA 0363	EER.

Continued on page 2

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

818 Soundside Road Edenton, NC 27932

May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	B1GE	Piggyback Base Supported Gable	1	1	Job Reference (optional)	165567109

- 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) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated. 8)
- 9) Gable requires continuous bottom chord bearing. 10) Truss to be fully sheathed from one face or securely
- braced against lateral movement (i.e. diagonal web). 11) Gable studs spaced at 2-0-0 oc.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 45, 660 lb uplift at joint 24, 25 lb uplift at joint 35, 26 lb uplift at joint 34, 34 lb uplift at joint 32, 22 lb uplift at joint 31, 49 lb uplift at joint 30, 74 lb uplift at joint 29, 65 lb uplift at joint 28, 68 lb uplift at joint 27, 64 lb uplift at joint 26, 540 lb uplift at joint 25, 26 lb uplift at joint 37, 31 lb uplift at joint 38, 45 lb uplift at joint 40, 75 lb uplift at joint 41, 68 lb uplift at joint 42, 55 lb uplift at joint 43 and 164 Ib uplift at joint 44.
- 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Run; 9.04 S 8.73 Apr 25 2024 Print; 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:48

Page: 2

ID:va6oJ_bKLZdwDLTYr9P9wpzF_UL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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



Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	BGR	Attic Girder	1	2	Job Reference (optional)	165567110

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:48 ID:HiLQkPKHOQTU5G6uHHvM5iy8nJN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:86.6

Plate Offsets	(X, Y): [2:0-2-8,0-2-8],	[4:0-3-5,Edge], [5:0	-5-4,0-2-12	?], [7:0-8-0,0-	4-0], [9:0-5-0,0-5-0	0], [10:0-4	-0,Edge], [12	2:0-2-8,0	-2-8], [18:0-5-8,0	-5-0]			
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.35 0.62 0.60	DEFL Vert(LL) Vert(CT) Horz(CT) Attic	in -0.18 -0.30 0.06 -0.13	(loc 18-19 19-21 14 18-32) I/defl 9 >999 1 >999 4 n/a 2 >999	L/d 240 180 n/a 360	PLATES MT20 Weight: 71	GRIP 244/190 1 lb FT = 205	%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD	2x6 SP No.2 *Excep 2.0E, 8-9:2x4 SP No 2x4 SP No.1 *Excep 2x4 SP No.3 *Excep No.2, 4-8:2x4 SP No Structural wood she 6-0-0 oc purlins, exc	t* 7-10:2x8 SP 2400 .2 t* 32-18:2x4 SP No. 2.0E t* 4-33,9-16:2x6 SP .2 athing directly applie sept end verticals, ar -0 max b: 5-7	WI PF 2, ed or nd	EBS	3-34=-900/1, 3-3 4-32=0/1568, 2-3 9-18=0/1784, 11- 4-37=-2016/108, 36-38=-1804/249 17-18=0/1296, 3 30-31=-1439/0, 1 20-21=-595/0, 28 26-28=0/524, 25- 6-36=-540/161, 5 5-36=-521/1417,	3=-111/79 4=0/2454 15=-551/2 36-37=-11 0, 8-38=-12 1-32=0/12 9-20=0/72 9-20=0/72 -29=-732 -29=-202/2 -37=-28/1 7-36=-50	17, 32-33=-12 , 16-18=-127 26, 656/93, 833/249, 16, 17-19=-1 21, 29-30=0// (0, 21-23=-64 1, 23-24=-12 016, 7-38=0, 0/1296,	25/856, 7/1021, 282/0, 858, 4/284, 6/21, /208,	5) Tr P D C 6) U da 7) Ti lo 0 ⁰ 8) P 9) A	CLL: ASC late DOL= OL=1.15); s=1.00; C nbalanced esign. his truss h ad of 12.0 verhangs rovide ade ll plates at	E 7-16 :1.15); ; ls=1.0 t=1.10 d snow has bee) psf or non-co equate re 3x5	; Pr=20.0 psi Pf=20.0 psf); Rough Cat loads have I an designed f 1.00 times f ncurrent with drainage to MT20 unless	i (roof LL: Lum (Lum DOL=1.1) B; Fully Exp.; r been considere for greater of m lat roof load of to other live load prevent water p s otherwise indi	DOL=1.15 5 Plate Ce=0.9; d for this in roof live 20.0 psf on Is. ponding. cated.
BOT CHORD JOINTS REACTIONS	2-0-0 oc purlins (6-0 Rigid ceiling directly bracing. 1 Brace at Jt(s): 19, 30, 21, 28, 36 (size) 14=0-5-8, Max Horiz 35=-292 (-0 max.): 5-7. applied or 6-0-0 oc 35=0-5-8 LC 10)	NC 1)	DTES 2-ply truss (0.131"x3") Top chords	to be connected to nails as follows: connected as follows:	12-15=0/2 ogether wi	2662 th 10d		5) A 10) Ti ch 11) * 0i 3. ch	his truss h nord live lo This truss the botto 06-00 tall nord and a	as bee bad noi has be om cho by 2-0 any oth	in designed f nconcurrent v en designed rd in all area 10-00 wide wi her members	or a 10.0 psf b with any other I I for a live load s where a recta ill fit between th	ottom ive loads. of 20.0psf angle ie bottom
FORCES TOP CHORD BOT CHORD	Max Grav 14=2906 ((lb) - Maximum Com Tension 1-2=0/37, 2-3=-3043 4-5=-1965/102, 5-6= 6-7=-2784/417, 7-8= 8-9=-2552/46, 9-11= 12-13=0/37, 2-35=-2 34-35=-237/297, 33 31-33=-171/2261, 25 26-29=0/5207, 23-26 17-20=0/4392, 16-17 14-15=-12/128, 30-3 28-30=-2203/0, 25-2 24-25=-3191/0, 21-2 19-21=-2496/0, 18-1	(LC 48), 35=2982 (L pression/Maximum /0, 3-4=-3405/0, -2784/417, -1683/294, -3617/0, 11-12=-344 916/0, 12-14=-2846 34=-14/2523, 9-31=0/4103, 3=0/5594, 20-23=0/5 7=0-/2616, 15-16=0/2 2=-387/399, 8=-3191/0, 4=-3191/0, 9=-1014/88	C 46) 55/0, 2) /1 5387, 3) 2709, 3) 4)	staggered a oc, 2x4 - 1 Bottom cho 0-9-0 oc. Web conne 2 rows stag All loads ar except if nc CASE(S) s provided to unless othe Unbalancer this design. Wind: ASC Vasd=103n II; Exp B; E cantilever la right expos	at 0-9-0 oc, 2X8 - 2 row at 0-9-0 oc. rds connected as icted as follows: 2: iggered at 0-9-0 oc. e considered equa ted as front (F) or ection. Ply to ply c distribute only loa rwise indicated. d roof live loads ha E 7-16; Vult=130m nph; TCDL=6.0psf nclosed; MWFRS eft and right expose ed; Lumber DOL=	2 rows sta follows: 2 (4 - 1 row ally applie back (B) onnection ds noted ave been on aph (3-sec (BCDL=6 (envelope ed; end v 1.60 plate	ggered at 0-5 x4 - 1 row at at 0-9-0 oc, d to all plies, face in the L0 s have been as (F) or (B), considered for cond gust) .0psf; h=25ft exterior zo vertical left ar grip DOL=1	9-0 2x6 - OAD or t; Cat. ne; nd .60	(s).4-32, 9-	8, 8-36	S S S S S S S S S S S S S S S S S S S	EAL 6322	n member

Continued on page 2

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

May 14,2024



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	BGR	Attic Girder	1	2	Job Reference (optional)	165567110

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:48

ID:HiLQkPKHOQTU5G6uHHvM5iy8nJN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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

- 13) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 30-32, 28-30, 25-28, 24-25, 21-24, 19-21, 18-19
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 839 lb down and 71 lb up at 10-5-12, and 839 lb down and 71 lb up at 25-4-4 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
- 17) 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, 2-5=-60, 5-7=-60, 7-8=-60, 8-9=-70, 9-12=-60, 12-13=-60, 14-35=-20, 18-32=-30, 4-37=-10, 36-37=-10, 36-38=-10, 8-38=-10
 - Drag: 4-32=-10, 9-18=-10
 - Concentrated Loads (lb)
 - Vert: 33=-450 (F), 16=-450 (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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	BSE	Attic Structural Gable	1	1	Job Reference (optional)	165567111

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:49

Page: 1



Scale = 1:90.3

,								-	-			-	
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER TOP CHORD	(psf) 20.0 20.0 10.0 0.0* 10.0 2x6 SP No.2 *Except 2 0E 8-9:2x4 SP No.2	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014 BOT CHORD	CSI TC BC WB Matrix-MSH 39-40=-241/292, 3 36-38=-104/1502, 31-34=0/4556, 28	0.49 0.98 0.97 8-39=0/ ⁷ 34-36=0 31=0/49	DEFL Vert(LL) Vert(CT) Horz(CT) Attic	in -0.29 -0.51 0.10 -0.23	(loc) 23-24 24-26 18 23-37 2) Win Va: II: I	I/defl >999 >852 n/a >791 nd: ASCI sd=103m Exp B: E	L/d 240 180 n/a 360 E 7-16; nph; TC nclose	PLATES MT20 MT20HS Weight: 388 I ; Vult=130mph CDL=6.0psf; B(d: MWERS (en	GRIP 244/190 187/143 b FT = 20% (3-second gu CDL=6.0psf; h welope) exter	/st) n=25ft; Cat. ior zone
BOT CHORD WEBS DTHERS BRACING	2.0c, 6-9.2x4 SP No.1 *Except 27-32:2x4 SP 2400F 2x4 SP No.3 *Except No.2, 4-8,19-16:2x4 S 2x4 SP No.3 Structural wood shea	2 * 37-23:2x4 SP No. 2.0E * 4-38,9-21:2x6 SP SP No.2 thing directly applie	2, ed or WEBS	22-25=0/3759, 21- 19-20=0/2254, 18- 35-37=-527/311, 3 30-33=-3238/0, 29 26-29=-3238/0, 29 23-24=-967/87 3-39=-704/0, 13-1	22=0/19 19=-6/14 3-35=-23 -30=-323 -26=-250 9=-413/2	51, 20-21=0/2 18, 303/0, 38/0, 03/0, 2, 2-39=0/195	2254, 24,	to 7 14- (1) car righ	d C-C Ex 7-8-8, Ex 11-8 to 2 27-5-3 to ntilever le nt expose reaction	tterior(2 20-2-3, o 33-6- eft and ed;C-C s show	2E) -0-10-8 to 2 2R) 7-8-8 to 14 Exterior(2R) 2 -0, Exterior(2E) right exposed for members a vn; Lumber DO	2-9-0, Interior -11-8, Interior 0-2-3 to 27-5- 33-6-0 to 37- ; end vertical and forces & I L=1.60 plate	(1) 2-9-0 (1) -3, Interior -1-8 zone; left and WWFRS grip
BOT CHORD WEBS JOINTS REACTIONS	4-1-12 oc purlins, ex 2-0-0 oc purlins (4-0- Rigid ceiling directly a bracing. 1 Row at midpt 2 1 Brace at Jt(s): 24, 35, 26, 33, 41, 45, 48 (size) 18=2-5-8, 4 Max Horiz 40=-292 (L Max Grav 18=2181 (I	cept end verticals, i 3 max.): 5-7. applied or 2-2-0 oc 4-41, 8-41 40=0-5-8 .C 12) LC 48), 40=2204 (L	C 48)	37-38=-85/187, 4- 21-23=-75/396, 9- 41-42=-1136/15, 4 8-43=-1236/139, 2 36-37=0/1240, 22- 35-36=-1420/0, 24 25-26=-618/0, 33- 31-33=0/478, 30-3 6-41=-548/162, 5- 5-41=-526/1455, 7 21-44=-411/287, 4 45-46=-360/285, 1	37=0/912 23=0/114 1-43=-12 2-23=0/7 24=-131 -25=0/74 34=-711/ 1=-186/0 42=0/743 -41=-509 4-45=-38 3-46=-44	 ., 3-38=-88/5 .8, 4-42=-138 .13/141, 282, 4/0, .8, 34-35=0/8 .0, 26-28=-46 .0, 28-29=-132 .3, 7-43=0/166 .5/1314, 37/277, 144/275, 	40, 98/11, 940, 5/310, 3/16, 5,	3) Tri onl see or (4) TC Pla DC Cs: 5) Un des	L=1.60 uss desig y. For si e Standa consult q LL: ASC te DOL= DL=1.15); =1.00; C balanced sign.	gned fo tuds ex rd Indu jualified E 7-16 =1.15); ; Is=1.0 t=1.10 d snow	or wind loads in (posed to wind ustry Gable End building desig ; Pr=20.0 psf (In Pf=20.0 psf (Li); Rough Cat B r loads have be	the plane of (normal to that d Details as a pner as per Al oof LL: Lum I um DOL=1.1t ; Fully Exp.; (en considered	the truss e face), pplicable, NSI/TPI 1. DOL=1.15 ; Plate Ce=0.9; d for this
FORCES	(lb) - Maximum Comp Tension 1-2=0/37, 2-3=-2487/ 4-5=-1822/66, 5-6=-2 6-7=-2764/392, 7-8=- 8-9=-2209/25, 9-10=- 11-13=-2909/0, 13-14 14-15=-2886/0, 15-16 2-40=-2394/0, 16-18=	oression/Maximum (0, 3-4=-2739/0, (764/392, -1670/270, -2792/0, 10-11=-28: 4=-2663/0, 5=-2872/0, 16-17=0 2383/0	NOTES 30/0, 1) Unbalanc this desig /37,	19-47=0/2209, 47- 10-44=-36/43, 11- 14-47=0/281, 15-4 ed roof live loads hav n.	48=0/21 45=-67/0 8=-133/ ⁻ re been o	42, 16-48=0/: , 20-46=-171 0 :onsidered fo	2170, /0, or		4	AL AND	SE 036	ARO SIONAL 322 NEER	A Company of the second second

May 14,2024

mmm



Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev, 1/2/2023 BEFORE USE WARNING Design valid for use only with MTek connectors. This design is based only upon parameters and property incorporate this design is based only upon parameters and property incorporate this design into the overall building designer must verify the applicability of design parameters and property incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	BSE	Attic Structural Gable	1	1	Job Reference (optional)	165567111
Carter Components (Sanford, N	C), Sanford, NC - 27332,	Run: 9.04 S 8.73 Apr	25 2024 Prir	t: 8.730 S Ar	or 25 2024 MiTek Industries, Inc. Tue May 14 11:16:4	9 Page: 2

ID:jfMMInrRxWpjnpkdD7IdQkzF_VJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

- 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 overhands non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding. 7)
- All plates are MT20 plates unless otherwise indicated. 8)
- 9) All plates are 2x4 MT20 unless otherwise indicated.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 11) Gable studs spaced at 2-0-0 oc.
- 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). 8-9, 4-42, 41-42, 41-43, 8-43; Wall dead load (5.0psf) on member (s).4-37, 9-23
- 15) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 35-37, 33-35, 30-33, 29-30, 26-29, 24-26, 23-24
- 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

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	T	Ply	133 Serenity-Roof-B330 B COP BNS GLH
0.40.40.400 -	,			A.U.					165567112
24040186-0	1	C		Attic		6		I	Job Reference (optional)
Carter Compone	nts (Sanford, NC), Sanford	l, NC - 27332,		Run: 8.73 E Nov 16	2023 Pr	rint: 8.7	30 E Nov 16	6 2023 MiTek Industries, Inc. Tue May 14 11:23:19 Page: 1
					ID:VP5mnZE7ejtTka	?ri?H4b	3zEzov	-CE5cOHx\	WQEpOHioWZFThIAGK48LIOsy_FUyOMxzGbk7
			2-3-12	1051	1-4-0		. 21.9	2-13	29-4-11 • 26-9-11
			-0-10-8	8-3-3 10-5-1	$\frac{2}{1}$ $\frac{15 \cdot 10 \cdot 13}{1}$ $\frac{2}{1}$	0-5-11	1 21-0	25-4-	34-3-0
			0-10-8	5-11-7 2-2-9 0	-10-13 4	+-0-13	1-3	3-3 3-7-7	7 1-5-7 2-7-0 4-10-5
			2-0-12		12x16 = 2x4 =		5-29-		
				9F 3x6 ¢	6 4748 7 49	50	8	5x10	*
	Т	STS		4x5 5				6x12	8x10 WB 💊
	4	÷1~,	1	425 4		×		× °	5x8 ₈
	5-5-	N 4		4	39 42		40	<u> </u>	51
	٥,	- +8-			4x8=		2x4 II	ı (X	10
	0	₹_†÷	5X10	16 3 ³	(6=				11
	-	2-0-2-1-7		+0/ <i>#</i> /					₩ ³²
	-	9 6	3	#/					12
		+	6x8=						
		44							
		တ်တ် ကက				×	×		
						20	参		
	1	-	37	<u>- 34 - 32 - 7</u> 35 33 31 3	$30 \ 28 \ 26 \ 53 \ 24$		54 2	2019 16	15 14
			MT20HS 8x12 II	6x12=	4x6=			20HS 8x12	2 = 2x4 II 5x8=
			5x8=		3x6= 3x8=			3x6	ð=
			4x8=		11-11-0				4x8=
			3-8	<u>-8</u> 10	-8-8			22-7-8	25- 346 ≠
			2-5-8	6-2-8 8-8-8 10-	5-12 13-10-8 16-4-8 1	8-10-8	821-4	-8 23-10-8	8
			2-3-12			-0 20-	-1-0 2	 	-1-0 29-4-11 34-3-0
			0-1-12		1-2-81-5-0 1-3-0 2-12 1-3-0 1-3-	1-3-0 .0 1-'	-1-3 1-3.0 0	00-3-8 1-	-3-0 4-0-7 4-10-5 0-2-12
Scale = 1:89.2		0.0.40	1-3	<u>-0 100 100 02</u>	2-12 2-12	1.	1700	1-3-0	
Plate Offsets ()	[2:0-3-8 x V): [37:0-3	3,0-2-12] -8 0-2-81	, [3:0-3-0,0-2-8], [5:0 [42:0-2-0 0-2-0]	-3-5,Edge], [6:0-5-8,0-	2-12 0]-6[83 0-5-12,0-2-12]	, [9:0-4	4-7,0-3	3-0], [11:0-	-5-0,Edgej, [13:0-8-0,0-0-2], [17:0-3-12,0-2-0], [29:0-3-0,0-3-0],
	, i). [37.0-3	-0,0-2-0]	, [42.0-2-0,0-2-0]						· · · · · · · · · · · · · · · · · · ·
Loading		(psf)	Spacing	2-0-0	csi	I	DEFL		in (loc) l/defl L/d PLATES GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15	тс с).95 N	Vert(L	L) -0.3	31 21-23 >999 240 MT20 244/190
Snow (Pf)		20.0	Lumber DOL	1.15	BC C).83 N	Vert(C	T) -0.	63 21-23 >645 180 MT20HS 187/143
TCDL		10.0	Rep Stress Incr	YES	WB C).79 H	Horz(C	CT) 0.	.11 13 n/a n/a
BCLL		0.0*	Code	IRC2018/TPI2014	Matrix-MSH	- 1	Attic	-0.	10 29-36 >999 360
BCDL		10.0		8					Weight: 353 lb FT = 20%
LUMBER				BOT CHORD	37-38=-269/247, 35-3	7=0/16	520,		2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
TOP CHORD	2x6 SP 2400	F 2.0E *	Except*		33-35=0/1946, 31-33=	-85/19	936,		Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
	6-8,4-3,9-10	2x6 SP	No.2		30-31=-514/1001, 28-	30=-10	00/231	7,	II; Exp B; Enclosed; MWFRS (envelope) exterior zone
BOT CHORD	2x4 SP No.1	*Except	* 36-29:2x4 SP No.2	,	26-28=-100/2317, 26-	53=0/4	1244, 1 22 5	4 0/5000	and C-C Exterior(2E) -0-10-8 to 2-7-13, Interior (1)
WERS	28-19:2x4 SI	2400F	2.UE		24-33=0/4244, 22-24=	0/3161	1, 22-5 4 16-1	04=0/5066 19=0/4254	 2-7-13 (0.7-9-11, Exterior(2R) 7-9-11 (0.14-10-5, Interior (1) 14-10-5 to 16-11-6 Exterior(2R) 16-11-6 to 23-11-15
WEBS	2X4 SP NO.3		102 5-0 37-2-224 SF	D	15-16=0/2563 14-15=	0/3081	1. 13-1	4=0/3081	Interior (1) 23-11-15 to 30-8-11. Exterior(2E) 30-8-11 to

OTHERS WEDGE BRACING TOP CHORD BOT CHORD	No.2, 5-30:2x6 SP 2400F 2.0E 2x4 SP No.3 Right: 2x6 SP No.2 Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-10-6 max.): 6-8. Rigid ceiling directly applied or 3-4-2 oc	27-29=-77/3181, 25-27=-1123/757, 23-25=-2606/0, 21-23=-3001/0, 18-21=-2412/0, 17-18=-982/78, 34-36=0/1032, 32-34=-154/1003, 29-32=-160/1535 WEBS 36-37=-1809/0, 3-36=-1787/0, 15-17=0/613, 10-17=0/1356, 5-39=-1650/113, 39-42=-1363/95, 40-42=-3355/0,
WEBS JOINTS	bracing. 2 Rows at 1/3 pts 9-42 1 Brace at Jt(s): 27, 25, 23, 21, 18, 34, 32, 42	9-40=-3385/0, 2-37=0/3266, 29-30=0/1058, 29-41=0/1851, 5-41=0/1874, 6-39=-37/819, 8-40=0/232, 27-30=-2291/0, 26-27=0/1484, 25-26=-1222/0, 24-25=0/761, 23-24=-578/10, 22-23=-82/324, 21-22=-156/206,
REACTIONS	(lb/size) 13=1910/ Mechanical, 38=2182/0-5-8 Max Horiz 38=-280 (LC 12) Max Grav 13=2372 (LC 48), 38=2916 (LC 48)	20-21=-587/24, 18-20=0/791, 16-18=-1336/0, 16-17=0/1278, 35-36=-338/115, 34-35=-539/0, 33-34=-102/110, 32-33=-46/234, 31-32=-673/0, 29-31=0/857, 4-41=-127/408, 7-42=-404/119
FORCES	(lb) - Maximum Compression/Maximum Tension	6-42=-1029/259, 8-42=0/1668, 12-15=-675/180, 12-14=-44/110
TOP CHORD	1-2=0/37, 2-3=-2399/0, 3-46=-3558/0, 4-46=-3333/0, 4-5=-3497/0, 5-6=-1733/0, 6-47=-1450/296, 47-48=-1450/296, 7-48=-1450/296, 7-49=-1450/296, 49-50=-1450/296, 8-50=-1450/296, 8-9=-670/407, 9-51=-2623/0, 10-51=-2777/0, 10-11=-3586/0, 11-52=-3628/0,	NOTES1) Unbalanced roof live loads have been considered for this design.

12-52=-3721/0, 12-13=-3947/0, 2-38=-3315/0

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. 111111 CAR O Vannonna Participant and a second SEAL 036322 GILB

34-3-0 zone; cantilever left and right exposed ; end

vertical left and right exposed;C-C for members and

TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15

Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9;

Unbalanced snow loads have been considered for this

forces & MWFRS for reactions shown; Lumber

DOL=1.60 plate grip DOL=1.60

Cs=1.00; Ct=1.10

design.

3)

4)

5)

unununu May 14,2024

Continued on page 2 Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MTek connectors. This design is based only upon parameters and property incorporate this design is based only upon parameters and property incorporate this design into the overall building designer must verify the applicability of design parameters and property incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type		Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	С	Attic		6	1	Job Reference (optional)	165567112
Carter Components (Sanford, NC), Sanford, NC - 27332,		Run: 8.73 E Nov 16 2	2023 Print: 8.	730 E Nov 1	6 2023 MiTek Industries, Inc. Tue May 14 11:23:19	Page: 2

- 6) 200 0lb AC unit load placed on the bottom chord 17-7-8 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding. 7)
- All plates are MT20 plates unless otherwise indicated. 8)
- 9) All plates are 3x5 MT20 unless otherwise indicated.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) Ceiling dead load (5.0 psf) on member(s). 3-4, 9-10, 5-39, 39-42, 40-42, 9-40, 4-41; Wall dead load (5.0psf) on member(s).3-36, 10-17, 29-41, 5-41
- 13) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-29, 25-27, 23-25, 21-23, 18-21, 17-18, 34-36, 32-34, 29-32
- 14) Refer to girder(s) for truss to truss connections.
- 16) This truss is designed in accordance with the 2018 R802.10.2 and referenced standard ANSI/TPI 1.
- or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S) Standard

ID:VP5mnZE7ejtTka?ri?H4b3zEzov-CE5cOHxWQEpOHioWZFThIAGK48LIOsy_FUyOMxzGbk7

15) n/a

International Residential Code sections R502.11.1 and

- 17) Graphical purlin representation does not depict the size
- 18) Attic room checked for L/360 deflection.

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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	C1	Attic	1	1	Job Reference (optional)	165567113
Cartar Companyata (Sanfard NC) Conford NC 27222	Bun: 0.04 C 8 73 Apr	25 2024 Drin	+ 0 720 C Ar	ar 25 2024 MiTek Industrian Ing. Tup May 14 11:16:5() Dogo: 1



40-43=-1366/96, 41-43=-3359/0,

23-24=-81/322, 22-23=-154/204,

17-18=0/1282, 36-37=-329/113,

35-36=-539/0, 34-35=-100/108,

4-42=-127/410, 7-43=-404/119,

6-43=-1030/260, 8-43=0/1668,

Unbalanced roof live loads have been considered for

12-16=-663/180, 12-15=-32/123

9-41=-3389/0, 2-38=0/3267, 30-31=0/1057,

30-42=0/1851. 5-42=0/1873. 6-40=-37/820.

8-41=0/233 28-31=-2290/0 27-28=0/1482

26-27=-1220/0, 25-26=0/759, 24-25=-576/9,

21-22=-588/22, 19-21=0/791, 17-19=-1335/0,

33-34=-44/229, 32-33=-669/0, 30-32=0/859,

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this 4) design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.



continued on page 2

Loading

TCLL (roof)

Snow (Pf)

LUMBER

TCDI

BCLL

BCDL

WEBS

OTHERS

WEDGE

BRACING

TOP CHORD

BOT CHORD

REACTIONS (size)

WEBS

JOINTS

FORCES

TOP CHORD

bracing.

33.43

Tension

Structural wood sheathing directly applied or

2-2-0 oc purlins, except end verticals, and

2-0-0 oc purlins (5-10-6 max.): 6-8.

2 Rows at 1/3 pts 9-43

Max Horiz 39=-290 (LC 12)

1 Brace at Jt(s): 28,

26, 24, 22, 19, 35,

Rigid ceiling directly applied or 3-4-1 oc

13=0-3-8, 39=0-5-8

(lb) - Maximum Compression/Maximum

4-5=-3495/0. 5-6=-1732/0. 6-7=-1448/297

7-8=-1448/297, 2-39=-3317/0, 8-9=-669/408

1-2=0/37. 2-3=-2400/0. 3-4=-3559/0.

9-10=-2777/0, 10-12=-3716/0,

12-13=-3963/0, 13-14=0/32

Max Grav 13=2417 (LC 48), 39=2919 (LC 48)

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

NOTES

this desian.

1)

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	C1	Attic	1	1	Job Reference (optional)	165567113

- 200.0lb AC unit load placed on the bottom chord, 17-7-8 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
 All plates are MT20 plates unless otherwise indicated.
- All plates are 3x5 MT20 unless otherwise indicated.
- 10) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) Ceiling dead load (5.0 psf) on member(s). 3-4, 5-40, 40-43, 41-43, 9-41, 4-42, 9-10; Wall dead load (5.0psf) on member(s).3-37, 10-18, 30-42, 5-42
- 13) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 28-30, 26-28, 24-26, 22-24, 19-22, 18-19, 35-37, 33-35, 30-33
 14) Bearings are assumed to be: , Joint 13 SP No.1.
- 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: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:50 ID:VP5mnZE7ejtTka?ri?H4b3zEzov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

ENGINEERING BY A MiTek Atfiliate 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 **ANSUTPI1 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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	CGE	Attic Structural Gable	1	1	Job Reference (optional)	165567114



Continued on page 2

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



Edenton, NC 27932

minin May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	CGE	Attic Structural Gable	1	1	Job Reference (optional)	165567114

Run: 8 73 F. Nov 16 2023 Print: 8 730 F. Nov 16 2023 MiTek Industries. Inc. Tue May 14 11:27:00

ID:HSVLvMXIBUOh6UIn9Dc1gjzEzgn-Elx9mrc8N7f2IgB_?AwWInvCBEwXgt0W3N_ZcezGbgg

Page: 2

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

WEBS 52-53=-612/194. 3-52=-609/224. 24-26=-635/11, 13-26=-597/81, 56-63=-204/423. 59-63=-186/472. 58-59=-186/472, 57-58=-186/472, 57-61=-186/472, 61-64=-186/472, 12-64=-188/442, 2-60=-233/840, 53-60=-235/848, 9-57=-15/17, 33-34=-220/0, 8-58=-2/24, 35-36=-219/0, 7-59=-142/39, 37-38=-226/0, 40-41=-230/14, 44-45=-197/0, 46-47=-224/0, 48-49=-225/0, 50-51=-185/0, 54-60=-11/3, 10-61=-107/40, 31-32=-223/0, 29-30=-208/0, 25-27=-261/0, 15-23=-44/132, 16-22=-150/91, 17-21=-159/91, 18-20=-65/103, 42-43=-496/20, 43-62=-547/113, 56-62=-461/134, 5-56=-572/174, 4-62=-168/141, 6-63=-65/434, 11-64=-45/242

NOTES

- Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-7-13, Exterior(2N) 2-7-13 to 7-9-11, Corner(3R) 7-9-11 to 15-1-8, Exterior (2N) 15-1-8 to 16-11-6, Corner(3R) 16-11-6 to 23-11-15, Exterior(2N) 23-11-15 to 30-8-11, Corner(3E) 30-8-11 to 34-3-0 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.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) Ceiling dead load (5.0 psf) on member(s). 3-4, 12-13, 56-63, 59-63, 58-59, 57-58, 57-61, 61-64, 12-64, 4-62; Wall dead load (5.0psf) on member(s).3-52, 13-26, 43-62, 56-62
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 40-43, 38-40, 36-38, 34-36, 32-34, 29-32, 27-29, 26-27, 50-52, 48-50, 46-48, 44-46, 43-44
- 14) Bearings are assumed to be: , Joint 19 User Defined crushing capacity of 425 psi.
- 15) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 55, 53, 23, 22, 21, 20, 42, and 19. 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

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 **ANS/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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	CGR	Attic Girder	1	2	Job Reference (optional)	165567115
Carter Components (Sanford, NC). Sanford. NC - 27332.	Run: 9.04 S 8.73 Apr	25 2024 Prin	nt: 8.730 S Ar	or 25 2024 MiTek Industries, Inc. Tue May 14 11:16:5	1 Page: 1

Carter Compone	ents (Sanford, NC), Sanfor	d, NC - 27332,		Run: 9.04 S 8.73	Apr 25 2024 Print:	8.730 S Apr 2	5 2024 MiTek Indu	ustries, Inc. T	ue May 14 11:1	6:51 Page: 1
		2-3-12		ID:VP5mnZE7ejt	ka?ri?H4b3zEzov-	-RtC?PsB70Ho	q3NSgPqnL8w3ul 29-4-1	1 XbGKWrCL 1	Joi/J4zJC?t	
		-0-10-8	8-3-3 10)-5-12 15-10-13	20-5-11 21-	-8-13 25-4-4	1 26-7-2	34-3	8-0	
		0-10-8 2-3-12	5-11-7	2-2-9 4-6-13 0-10-4_	4-6-13 1-	-3-3 3-7-7	1-2-14 2-9-9	4-10)-5	
		2012		12x16= 2x	4 u 5x8	3=				
	-0				48 8	5x10.				
	-8-2			5		9	4x8、			
			6x8 10 4 ∲	40 4	j <u>ka∼ kap</u> I 42	4x6.	678			
			94	4×	8= 2x4		A10			
			16 \$ 8	3×6=			149			
	0-0-	6x8 4	, 40 , *				× 50			
	<u>+</u> + +	3 \$	×					12		
	+++++++++++++++++++++++++++++++++++++++	6x8=0 2_0								
									*	
	2-6							G		-
	-	⊥ 38 <u>⊠ 30</u> 37	35 33 3	1 30 28 26 51	23 + 21 24 22 52	20 19 16	15	14		
		5x6=	6	5x10= 5x6=		4x5=	4x8=	2x4 II	4x5=	
		4x8:	=	3x6= 11-11-0		4x5	=			
		3-8 2-5-8	3-8 3 6-2-8 8-8-8	10-8-8 3 10-5-12 13-10-8 16-4	-8 18-10-8 21-	22-7-8 2 4-8 23-10-8	25- 24~21= }			
		2-3-12	4-11-8 7-5-8 1	0-3-0 12-5-8 15-1-8	17-7-8 20-1-8	22-4-0 25-	-1-8 29-4-11	34-3	8-0	
0		0-1-12	1-3-0 1-3-0 2 1-3-0 1-3-0	1-6-8 1-2-8 1-5-0 1-3)0-2-12 1-3-0	-0 1-3-0 1-3 1-3-0 1-3-0	3-00-3-8 1-3 0-11-8 (3-0 4-0-7 0-2-12	4-10	1-0	
Scale = $1:85.5$ Plate Offsets (X Y) [.] [2:0-3-8 0-3-0]	1-3	3-0 -5-8 0-2-12] [8:0-5	<u>0-2-12</u> -8 0-2-12 0-®-8 -4-11 0-2-	12] [11·0-4-0 Fc	<u>1-3-0</u> dae] [13:Eda	ne 0-0-11 [29·0-	-2-0 0-3-41		
	,, , ,, [2.0 0 0,0 0 0],	[0:0 0 0,20g0], [0:0		0,0 2 .2], [0.0,0 2	, [
Loading	(psf) 20.0	Spacing	3-0-0 1 15	CSI	0 79 Vert/L	in	(loc) l/def	L/d P	LATES	GRIP 244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.96 Vert(C	T) -0.51	21-23 >796	5 180	1120	244/100
TCDL	10.0	Rep Stress Incr	NO	WB	0.97 Horz(C	T) 0.10	13 n/a	n/a		
BCLL BCDL	0.0* 10.0	Code	IRC2018/1PI201	4 Matrix-MSH	Attic	-0.08	29-36 >999) 360 V	Veight: 700 lb	FT = 20%
	,		BOT CHO	2D 37-38-405/373 34	5-37-0/2528		2) All loads a	re conside	red equally a	nnlied to all plies
TOP CHORD	2x6 SP 2400F 2.0E	*Except* 6-8,9-10:2>	x6 SP	33-35=0/2911, 31-3	33=-151/2769,		except if n	oted as fro	nt (F) or back	(B) face in the LOAD
	No.2	4*		30-31=-884/1205, 2 24-26=0/5982 22-2	26-30=-202/3205 24-0/7321 20-2	5, 2-0/7209	CASE(S) :	section. Ply o distribute	to ply conne	ctions have been
BOT CHORD	28-19:2x4 SP No.1	it in the second s		16-20=0/5822, 15-1	16=0/3427, 14-1	5=0/4147,	unless oth	erwise indi	cated.	
WEBS	2x4 SP No.3 *Excep	t* 3-37:2x4 SP No.1	, No 2	13-14=0/4147, 27-2 25-271380/1234	29=-108/4779, 23-253536/0		 Unbalance this design 	ed roof live	loads have b	een considered for
	10-10,0-00,4-0.2200	51 100.2, 5-3.274 51	110.2	21-23=-4130/0, 18-	21=-3312/0,		4) Wind: AS	 CE 7-16; Vi	ult=130mph (3	3-second gust)
WEDGE	Right: 2x4 SP No.3			17-18=-1357/208, 32-34=-255/1511	34-36=-33/1468, 29-32=-236/2448	2	Vasd=103	Smph; TCDI Enclosed: I	L=6.0psf; BCI WWFRS (envi	DL=6.0psf; h=25ft; Cat.
TOP CHORD	2-0-0 oc purlins (6-0	-0 max.). except en	d WEBS	36-37=-2510/0, 3-3	6=-2469/0, 15-1	7=0/854,	cantilever	left and rig	ht exposed ; e	end vertical left and
	verticals			10-17=0/1967, 12- 12-1438/191 5-4	15=-992/284, 02205/222		right expo	sed; Lumb	er DOL=1.60	plate grip DOL=1.60
BOT CHORD	(Switched from shee Rigid ceiling directly	eted: Spacing > 2-8-0 applied or 5-10-1 or	0). c	40-41=-1827/187, 4	41-42=-4782/0,		5) TCLL: AS	CE 7-16; P	r=20.0 psf (ro	of LL: Lum DOL=1.15
	bracing.			9-42=-4824/0, 2-37	=0/4586, 29-30=	=0/1541, 559/172	Plate DOL	_=1.15); Pf=	=20.0 psf (Lur 2ough Cat B:	n DOL=1.15 Plate
JOINTS	1 Brace at Jt(s): 6, 8, 2, 34, 32, 27, 25.			34-35=-734/0, 33-3	4=-192/147,	- 000/112,	Cs=1.00;	Ct=1.10	tough out b,	Tuny Exp., 00–0.0,
	23, 21, 18, 39, 40,			32-33=-51/397, 31- 29-31=0/1388_27-3	32=-1082/0, 30=-3343/0_26-2	27=0/2121	6) Unbalance	ed snow loa	ads have beer	n considered for this
REACTIONS	41, 42 (size) 13=0-5-8	38=0-5-8		25-26=-1773/0, 24-	25=0/1088,		 This truss 	has been o	designed for g	greater of min roof live
	Max Horiz 38=-420 (LC 10)		23-24=-861/19, 22- 21-22=-263/274 20	23=-128/474,)-21=-839/67		load of 12	.0 psf or 1.	00 times flat r	oof load of 20.0 psf on ner live loads
	Max Grav 13=3507 ((LC 44), 38=4325 (L	.C 44)	18-20=0/1094, 16-	18=-1918/0, 16-1	17=0/1840,	overhange			
FORCES	(Ib) - Maximum Com	A Resident Maximum		4-39=-171/519, 6-4 7-41=-605/180, 8-4	0=-80/1084, 2=0/322, 8-41=()/2290.				
TOP CHORD	1-2=0/55,2-3=-3264	10 3-4 4842/0,	- 1	6-41=-1532/412		,				
	78=-2222051, 8-9=	-1854/608								
	9-10=-36 7/0, 10-12 12-13=-5317/0 2 29	= 4982/0,	1) 2-ply t	russ to be connected tog	ether with 10d					
	SE	AL	(0.131	"x3") nails as follows:	15. 2x6 - 2 rows					
	036	322	stagge	red at 0-9-0 oc, 2x4 - 1 r	ow at 0-9-0 oc.					
		1	Botton	n chords connected as fo	llows: 2x4 - 1 rov	w at				
	E A . ENG.	TER. A	Web c	onnected as follows: 2x4	- 1 row at 0-9-0	oc, 2x6 -				
	I BIO	NERERIN	2 rows	staggered at 0-9-0 oc.						
	Min A.	GILL								44.0004
	20111	THURS							Ma	v 14.2024

L

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/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)

May 14,2024



Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	CGR	Attic Girder	1	2	Job Reference (optional)	165567115

- 200.0lb AC unit load placed on the bottom chord, 17-7-8 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
 All plates are 3x5 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.
 13) Ceiling dead load (5.0 psf) on member(s). 3-4, 9-10, 5-40, 40-41, 41-42, 9-42, 4-39; Wall dead load (5.0psf)
- on member(s).3-36, 10-17, 29-39, 5-39 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-29, 25-27, 23-25, 21-23, 18-21, 17-18, 34-36, 32-34, 29-32
- 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: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:51 ID:VP5mnZE7ejtTka?ri?H4b3zEzov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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



			•							
Job	Truss		Truss Type		Qty	Ply	133 \$	Serenity-Roof-B330	B COP BNS GLH	
24040186-01	CGR1		Attic Girder		1	2	Job F	Reference (optional)	165567116
Carter Component	ts (Sanford, NC), Sanford 1	d, NC - 27332, -0-10-8 0-10-8 2-3-12 6x8 ≠ 6x8 ≠ 1	Aute Onder 8-3-3 10-5-12 5-11-7 2-2-9 0- 1 $9 ^2$ 4 6x8 9 ^2 4 6x8 9 4 4 5 9 4 6x8 9 4 5 9 4 5 9 4 5 9 4 5 6 7 6 8 9 7 6 7 8 9 7 8 9 7 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 <th>Run: 9.04 S 8.7 ID:VP5mnZE7e -4-0 105-10-13 4-6-13 $10_{5x}8 =$ 2x16 = 2x 6 48 7 41 42 41 42 41 42</th> <th>4 u 4 u 4 y 20-5-1 4-6-1: 4 s 20-5-1 4-6-1: 4 u 28=</th> <th>24 Print: 8.73 b3zEzov-RfC 1 21-8-13 3 1-3-3 5x8= 8 5x1(43 2x4 II</th> <th>Job F 0 S Apr 25 20 PSB70Hq3N 25-4-4 26 3-7-7 1-2 9 4x8 4x6 9 4x6 4x6 9 4x8</th> <th>Reference (optional 124 MiTek Industries, Ir SgPqnL&w3ulTXbGKV 29-4-11 -7-2 34 2-14 2-9-9 4- 6x8 0 150 150 12</th> <th>) nc. Tue May 14 11:16 VrCDoi7J4zJC?f <u>1-3-0 35-1-8</u> 10-5 0-10-8</th> <th>.52 Page: 1</th>	Run: 9.04 S 8.7 ID:VP5mnZE7e -4-0 105-10-13 4-6-13 $10_{5x}8 =$ 2x16 = 2x 6 48 7 41 42 41 42 41 42	4 u 4 u 4 y 20-5-1 4-6-1: 4 s 20-5-1 4-6-1: 4 u 28=	24 Print: 8.73 b3zEzov-RfC 1 21-8-13 3 1-3-3 5x8= 8 5x1(43 2x4 II	Job F 0 S Apr 25 20 PSB70Hq3N 25-4-4 26 3-7-7 1-2 9 4x8 4x6 9 4x6 4x6 9 4x8	Reference (optional 124 MiTek Industries, Ir SgPqnL&w3ulTXbGKV 29-4-11 -7-2 34 2-14 2-9-9 4- 6x8 0 150 150 12) nc. Tue May 14 11:16 VrCDoi7J4zJC?f <u>1-3-0 35-1-8</u> 10-5 0-10-8	.52 Page: 1
	T T .1	- 39 🗧 😚 🖂 - 38 3	<u>≝~35`±~33`±~3</u> 4 36 34 32 3°	<u>≇ ⊪28 ≊ 26</u> 1 29 27 52 .	<u>[™]24</u> ≍ª 25 23	<u>22</u> <u>1</u> 3 53 21 20	t <u>9`⊡ 16</u> 0 17 16	<u>r ⊌</u> 15		
		5x6=	6x10=	5x6=		4x	(5= 4x8)	= 2x4 u	4x6=	
Scale = 1:85.5		4x8= 3-8- 2-5-8 <u>2-3-12</u> 2-3-12 0-1-12 0-1-12 1-3-	3 8 6-2-8 8-8-8 10-5 1-11-8 7-5-8 10-30 1-11-8 7-5-8 10-3-0 1-1-1-1-1 1-3-0 1-3-0 1-6-8 0-2 0-2	x6= 1-11-0 8-8 -12 13-10-8 16-4 12-5-8 15-1-8 1-2-8 1-5-0 1-3 12 1-3-0 -12	-8 18-10- 17-7-8 20 	22- -8 21-4-8 2 0-1-8 22-4- 1 + + 0 1-3-00-3 -3-0 0-11-	4x5= 3-10-8 0 25-1-8 	² ∉ <u>29-4-11 34</u> 4-0-7 4- 2	1-3-0 10-5	
Plate Offsets (X	, Y): [2:0-3-8,0-3-0],	[5:0-3-5,Edge], [6:0	-5-8,0-2-12], [8:0-5-8,0-2	2-1 2] 6 [9 :0-4-11,0-2	2-12], [11:	0-4-0,Edge]	, [13:0-6-0,0	0-0-3], [30:0-2-0,0-3	3-4]	
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	3-0-0 1.15 1.15 NO IRC2018/TPI2014	CSI TC BC WB Matrix-MSH	0.79 0.96 0.97	DEFL Vert(LL) Vert(CT) Horz(CT) Attic	in -0.25 2: -0.51 2: 0.09 -0.08 3:	(loc) I/defl L/d 2-24 >999 240 2-24 >797 180 13 n/a n/a 0-37 >999 360	PLATES MT20 Weight: 706 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD	2x6 SP 2400F 2.0E	*Except* 6-8,9-10:2>	BOT CHORD 6 SP	38-39=-413/388, 3 34-36=0/2926, 32 31-32=-886/1220	36-38=0/2 -34=-144/ _27-31=-1	543, 2786, 95/3221.	2)	All loads are cons except if noted as CASE(S) section	sidered equally app front (F) or back (Ply to ply connect	blied to all plies, B) face in the LOAD

- 2x4 SP No.2 *Except* BOT CHORD 29-20:2x4 SP No.1 WFBS 2x4 SP No.3 *Except* 3-38:2x4 SP No.1, 10-16,5-31,4-3:2x6 SP No.2, 5-9:2x4 SP No.2
- WEDGE Right: 2x4 SP No.3 BRACING WEBS TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals (Switched from sheeted: Spacing > 2-8-0). BOT CHORD Rigid ceiling directly applied or 5-10-1 oc bracing. JOINTS 1 Brace at Jt(s): 6, 8, 2, 35, 33, 28, 26, 24, 22, 19, 40, 41, 42, 43
- REACTIONS (size) 13=0-3-8, 39=0-5-8 Max Horiz 39=-435 (LC 10) FORCES

Continued on page 2

TOP CHORD 9-10=-3677/0, 10-12=-4978/0, 12-13=-5314/0, 13-14=0/47, 2-39=-4554/0 SEAL 036322 A. GILBER

31-32=-886/1220, 27-31=-195/3221, 25-27=0/5983, 23-25=0/7321, 21-23=0/7208, 17-21=0/5819. 16-17=0/3415. 15-16=0/4139. 13-15=0/4139, 28-30=-93/4763, 26-28=-1392/1228, 24-26=-3538/0 22-24=-4131/0. 19-22=-3312/0. 4١ 18-19=-1353/212, 35-37=-30/1462, 33-35=-246/1506, 30-33=-224/2440 37-38=-2514/0, 3-37=-2471/0, 16-18=0/848, 10-18=0/1965, 12-16=-982/280, 12-15=-36/193, 5-41=-2204/222 41-42=-1826/187, 42-43=-4786/0, 9-43=-4827/0, 2-38=0/4588, 30-31=0/1541, 30-40=0/2770, 5-40=0/2805, 36-37=-557/168, 35-36=-733/0, 34-35=-192/145, 33-34=-49/396, 32-33=-1081/0, 30-32=0/1387, 28-31=-3343/0, 27-28=0/2119, 26-27=-1771/0, 25-26=0/1085, 24-25=-858/18, 23-24=-127/472, 22-23=-261/273, 21-22=-839/65, 19-21=0/1095, 17-19=-1919/0, 17-18=0/1841, 4-40=-171/517, 6-41=-80/1084, 7-42=-605/180, 8-43=0/322, 8-42=0/2291, 6-42=-1534/412

NOTES

1)

2-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: 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.

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

- 3) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 5) 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) 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.

May 14,2024



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

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	CGR1	Attic Girder	1	2	Job Reference (optional)	165567116

- 200.0lb AC unit load placed on the bottom chord, 17-7-8 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
 All plates are 3x5 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.
 13) Ceiling dead load (5.0 psf) on member(s). 3-4, 9-10, 5-41, 41-42, 42-43, 9-43, 4-40; Wall dead load (5.0psf)
- on member(s).3-37, 10-18, 30-40, 5-40
 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 28-30, 26-28, 24-26, 22-24, 19-22, 18-19, 35-37, 33-35, 30-33
- 15) Bearings are assumed to be: , Joint 13 SP No.2 .
- 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.
- 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: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:52 ID:VP5mnZE7ejtTka?ri?H4b3zEzov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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



Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	D	Common	4	1	Job Reference (optional)	5567117

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:52 ID:nqLL14Jf5JAmMe82YAnIwAzF_pM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



0-4-0	6-11-8	13-7-0	13-11-0
0-4-0	6-7-8	6-7-8	0-4-0

Scale = 1:34.2

Loading Spacing 2-0-0 CSI DEFL in l/defl L/d PLATES GRIP (psf) (loc) TCLL (roof) 20.0 Plate Grip DOL 1.15 TC 0.72 Vert(LL) -0.09 6-11 >999 240 MT20 244/190 Snow (Pf) 20.0 Lumber DOL 1.15 BC 0.56 Vert(CT) -0.13 6-11 >999 180 TCDL 10.0 Rep Stress Incr WB Horz(CT) YES 0.10 0.02 4 n/a n/a BCLL 0.0 Code IRC2018/TPI2014 Matrix-MSH Weight: 51 lb BCDL 10.0 FT = 20% LUMBER 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 2x4 SP No.2 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate TOP CHORD BOT CHORD 2x4 SP No.2 DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10 WEBS 2x4 SP No.3 WEDGE Left: 2x4 SP No.3 4) Unbalanced snow loads have been considered for this Right: 2x4 SP No.3 desian. 5) This truss has been designed for greater of min roof live BRACING load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on TOP CHORD Structural wood sheathing directly applied or overhangs non-concurrent with other live loads. 4-1-1 oc purlins. This truss has been designed for a 10.0 psf bottom 6) BOT CHORD Rigid ceiling directly applied or 8-6-15 oc chord live load nonconcurrent with any other live loads. bracing. 7) * This truss has been designed for a live load of 20.0psf **REACTIONS** (size) 2=0-3-0. 4=0-3-0 on the bottom chord in all areas where a rectangle Max Horiz 2=41 (LC 14) 3-06-00 tall by 2-00-00 wide will fit between the bottom Max Uplift 2=-221 (LC 10), 4=-221 (LC 11) chord and any other members. Max Grav 2=708 (LC 21), 4=708 (LC 22) One H2.5A Simpson Strong-Tie connectors 8) FORCES (Ib) - Maximum Compression/Maximum recommended to connect truss to bearing walls due to Tension UPLIFT at jt(s) 2 and 4. This connection is for uplift only TOP CHORD 1-2=0/17, 2-3=-901/594, 3-4=-901/594, and does not consider lateral forces. 4-5=0/17 This truss is designed in accordance with the 2018 BOT CHORD 2-6=-458/775, 4-6=-458/775 International Residential Code sections R502.11.1 and WEBS 3-6=-116/268 R802.10.2 and referenced standard ANSI/TPI 1. NOTES LOAD CASE(S) Standard 1) Unbalanced roof live loads have been considered for

 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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-11-8, Exterior(2R) 3-11-8 to 9-11-8, Interior (1) 9-11-8 to 11-9-8, Exterior(2E) 11-9-8 to 14-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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



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) ERENCO A MiTek Affiliate

818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	DGE	Common Supported Gable	1	1	Job Reference (optional)	65567118

2-9-13

2-11-0

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:52 ID:UUQhZhEGk9Im0a6ieC968izF_pT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:33.5

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

Flate Olisets (A, T). [Z.Edge,0-0-	14], [Z.U-Z-5,Edge], [8:	.Euge,0-0-1	4], [0.0-2-5,E0	igel									
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MSH	0.29 0.19 0.08	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a -0.01	(loc) - - 8	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 59 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS WEDGE BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Left: 2x4 SP No.3 Right: 2x4 SP No.3 Structural wood sl 10-0-0 oc purlins. Rigid ceiling direc bracing. (size) 2=13-3- 11=13-3	3 heathing directly applie tly applied or 6-0-0 oc -0, 8=13-3-0, 10=13-3- 3-0, 12=13-3-0, 13=13	1) 2) ed or -0, 3)	Unbalanced this design. Wind: ASCE Vasd=103mp II; Exp B; Enc and C-C Corr to 3-11-8, Co 9-11-8 to 11- cantilever leff right exposed for reactions DOL=1.60 Truss design	roof live loads have 7-16; Vult=130mpl bh; TCDL=6.0psf; E closed; MWFRS (e ner(3E) -0-10-8 to :mer(3R) 3-11-8 to 9-8, Corner(3E) 11 t and right exposed d;C-C for members shown; Lumber DC ned for wind loads i	e been of SCDL=6 nvelope 2-1-8, E 9-11-8, -9-8 to 1; end v and for DL=1.60 in the pl	considered fo ond gust) .0psf; h=25ft;) exterior zor xterior(2N) 2 Exterior(2N) 14-9-8 zone; ertical left an ces & MWFR plate grip ane of the trr.	r ; Cat. he -1-8 d &S	12) Non 13) This Inte R80 LOAD C	Standa truss is rnationa 2.10.2 a CASE(S)	rd bea desig Resic and ref Star	ring condition. R ned in accordanc lential Code sect erenced standarc ndard	eview required. e with the 2018 ions R502.11.1 an I ANSI/TPI 1.	ıd
	14=13-3 Max Horiz 2=41 (L Max Uplift 2=-1 (L) 10=-44 12=-47 14=-75 21=-71 Max Grav 2=0 (LC 10=302 12=420 14=435 21=-128	3-0, 18=13-3-0, 21=13 .C 14), 18=41 (LC 14) C 21), 8=-71 (LC 36), (LC 15), 11=-35 (LC 1 (LC 10), 13=-23 (LC 1 (LC 10), 18=-1 (LC 21 (LC 36) C 10), 8=128 (LC 22), (LC 22), 11=205 (LC 0 (LC 21), 13=123 (LC (LC 21), 13=123 (LC (LC 21), 13=0 (LC 10 (LC 22))	3-0 1), 4) 4),), 5) 22), 6)), 7)	only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalancet design. This truss ha load of 12.0 g overhangs or	ds exposed to wind d Industry Gable Er alified building des 7-16; Pr=20.0 psf .15); Pf=20.0 psf (15); Pf=20.0 psf s=1.0; Rough Cat Ist. 10 snow loads have b s been designed for psf or 1.00 times fla pn-concurrent with .24 MT20 upless	d (norm nd Deta igner as (roof LL Lum DC B; Fully een cor or greate at roof lo other liv	at to the face Is as applical s per ANSI/TF : Lum DOL=' L=1.15 Plate Exp.; Ce=0.5 isidered for the re of min roof pad of 20.0 ps re loads. so indicated), ble, Pl 1. 1.15 9; his live sf on				TH CA	ROUT	
FORCES	(lb) - Maximum Co Tension	ompression/Maximum	8) 9)	Gable studs	spaced at 2-0-0 oc) nsf bottom			Z	2×		hill	-
TOP CHORD	1-2=0/17, 2-3=-22 4-5=-123/411, 5-6 7-8=-217/405, 8-9	0/432, 3-4=-165/401, =-122/395, 6-7=-170/3 =0/17	392, 10)	chord live loa * This truss h on the botton	ad nonconcurrent w las been designed n chord in all areas	ith any for a liv	other live loa e load of 20.0 a rectangle	ds. Opsf		11111		SEA 0363	L 22	
BOT CHORD	2-14=-365/260, 13 12-13=-365/260, 1 10-11=-365/260, 8	3-14=-365/260, 11-12=-365/260, 3-10=-365/260	11)	3-06-00 tall b chord and an	by 2-00-00 wide will by other members.	I fit betv	veen the botto	om		1111				111.
WEBS	5-12=-360/181, 4- 3-14=-275/153, 6- 7-10=-212/127	13=-146/110, 11=-183/128,	11)	recommende UPLIFT at jt(connection is	to connect truss s) 2, 8, 12, 13, 14, for uplift only and	to bear 11, 10, does no	ng walls due and 8. This ot consider la	to teral				A. G	ILBERTIN'	
NOTES				forces.								111111	11111,	

May 14,2024

Page: 1



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	E	Common	3	1	Job Reference (optional)	165567119

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:52 ID:wb1oEU3ot9zDodjcIXhweSzF_Yu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



	1	6-5-8	1	12-11-0	1	
	[6-5-8	1	6-5-8		
Scale = 1:44.9						
Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,Edge]						

	(, , , , , , , , , , , , , , , , , , ,	[; - 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	0.75 0.35 0.11	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.03 -0.07 0.00	(loc) 7-8 7-8 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 75 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance this design 2) Wind: AS(Vasd=103 II; Exp B; and C-C E to 3-5-8, E 10-9-8, E 20-9, B; and right e C for merr shown; LU	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood shee 6-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 6=0-5-8, 8 Max Horiz 8=161 (LC Max Uplift 6=-59 (LC Max Uplift 6=-59 (LC Max Grav 6=653 (LC (lb) - Maximum Com Tension 1-2=0/34, 2-3=-564/ 4-5=0/34, 2-8=-595/ 7-8=-168/269, 6-7=-4 3-7=0/216, 2-7=-37/2 ed roof live loads have n. CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) 10-9-8 to 13 exposed; end vertical I bers and forces & MW mber DOL=1.60 plate	t* 8-2,6-4:2x4 SP No athing directly applie cept end verticals. applied or 10-0-0 or 3=0-5-8 2 13) 2 22), 8=-59 (LC 14) 2 22), 8=653 (LC 21) pression/Maximum 121, 3-4=-564/121, 165, 4-6=-595/156 86/236 269, 4-7=-39/269 been considered for (3-second gust) CDL=6.0psf; h=25ft; welope) exterior zon 2-1-8, Interior (1) 2-1 5-8, Interior (1) 9-5-8 -9-8 zone; cantileve eft and right expose (FRS for reactions grip DOL=1.60	4) 5) 2 2 2 4 4 5 5 7 7 8) 9 9) 4 5 7 9) 4 5 7 7 8) 9 9 4 5 7 7 8) 9 4 5 7 7 8 9 9 4 5 7 7 8 7 7 8 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1	Unbalanced design. This truss ha load of 12.0 overhangs n This truss la chord live lo. * This truss l on the bottoo 3-06-00 tall I chord and at One H2.5A 3 recommend UPLIFT at jt and does no This truss is International R802.10.2 a	snow loads have I as been designed f psf or 1.00 times fi on-concurrent with as been designed f ad nonconcurrent v has been designed m chord in all area by 2-00-00 wide win y other members. Simpson Strong-Ti ed to connect truss (s) 8 and 6. This cr t consider lateral fi designed in accorr Residential Code nd referenced star Standard	been cor for great lat roof la o other li for a 10. with any f for a liv s where a to bear ponectio porces. dance w sections ndard AN	hsidered for t er of min roo bad of 20.0 p ve loads. D psf bottom other live loa e load of 20. a rectangle veen the bott ctors ing walls due n is for uplift ith the 2018 \$ R502.11.1 a ISI/TPI 1.	this f live osf on ads. 0psf tom e to only and			A D	SEA 0363	L 22
 TCLL: AS Plate DOL DOL=1.15 	CE 7-16; Pr=20.0 psf (i _=1.15); Pf=20.0 psf (Li 5); Is=1.0; Rough Cat B	roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9	.15 ;								in the	A SNGIN	EERAAN

- to 3-5-8, Exterior(2R) 3-5-8 to 9-5-8, Interior (1) 9-5-8 to 10-9-8, Exterior(2E) 10-9-8 to 13-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

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)



GI

11111111 May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	EGE	Common Supported Gable	1	1	Job Reference (optional)	165567120

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:53 Page: 1 ID:hs_OLPz9_OqUDEXuG81pmYzF_Z1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.7

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MR	0.12 0.06 0.13	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 12	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 244/190
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 12=12-11 14=12-11 (size) 12=12-11 14=12-11 Max Horiz 18=161 (Max Uplift 12=-59 (14=2-58 (14=258 (16=258 (18=185 (Pathing directly applied teept end verticals. / applied or 6-0-0 oc -0, 13=12-11-0, -0, 15=12-11-0, -0, 17=12-11-0, -0 LC 13) LC 14), 13=-93 (LC 15) LC 25), 13=231 (LC 22 LC 22), 15=165 (LC 28 LC 21), 17=231 (LC 25 LC 25)	 2) Wind: ASCI Vasd=103n II; Exp B; E and C-C Cc to 3-5-8, Cc 10-9-8, Cor and right exp C for memb shown; Lun 3) Truss design only. For sissee Standa or consult cons	E 7-16; Vult=130n nph; TCDL=6.0psi nclosed; MWFRS ormer(3E) -0-10-8 ymer(3R) 3-5-8 to ner(3E) 10-9-8 to posed ; end vertii ers and forces & nber DOL=1.60 pl gned for wind load tuds exposed to w rd Industry Gabie ualified building d E 7-16; Pr=20.0 psi (1.15); Pf=20.0 psi (1.15); Pf=20.	nph (3-sec f; BCDL=6 (envelope to 2-1-8, E 9-5-8, Ex: 13-9-8 zo cal left and MWFRS f ate grip D ds in the p <i>v</i> ind (norm End Deta lesigner a: sis (roof L f (Lum DC at B; Fully e been cor d for great f fat roof k	cond gust) 5.0psf; h=25ft 5.0psf; h=25ft 2.xterior(2N) 9-5 ne; cantileve 4 right expose or reactions OL=1.60 lane of the tru al to the face ils as applica s per ANSI/TI :: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 hsidered for the er of min roof bad of 20.0 p	; Cat. ne -1-8 -8 to r left ed;C- uss :), ble, PI 1. 1.15 e 9; his f live sf on	14) This Inte R8(LOAD (s truss is rnationa 12.10.2 a CASE(S	s desig al Resi and ref) Sta	yned in accordan dential Code sec ferenced standar ndard	F1 = 20% ce with the 2018 tions R502.11.1 and d ANSI/TPI 1.
FORCES	(lb) - Maximum Con Tension	npression/Maximum	7) All plates at 8) Gable requi	re 2x4 MT20 unle	ss otherwi	se indicated.					WHICH CA	Polit
TOP CHORD	2-18=-183/135, 1-2 3-4=-96/116, 4-5=-8 6-7=-116/266, 7-8= 9-10=-69/139, 10-1	=0/34, 2-3=-72/65, 35/193, 5-6=-115/266, ·82/197, 8-9=-89/102, 1=0/34, 10-12=-176/23	9) Truss to be braced aga 10) Gable studs	fully sheathed fro inst lateral moven s spaced at 2-0-0	nent (i.e. d oc.	iagonal web)	/ .		6	in	ROTES	Rest
BOT CHORD	17-18=-77/79, 16-1	7=-77/79, 15-16=-77/79	^{9,} chord live lo	as been designed ad nonconcurren	t with anv	other live loa	ids.		-		· ×	
WEBS	14-15=-77/79, 13-1- 6-15=-215/32, 5-16 4-17=-183/115, 3-1 7-14=-220/100, 8-1 9-12=-194/150	4=-77/79, 12-13=-77/79 =-220/109, 8=-211/167, 3=-183/146,	12) * This truss on the botto 3-06-00 tall chord and a 13) Provide me	has been designed om chord in all are by 2-00-00 wide any other member chanical connecti	ed for a liv eas where will fit betv s. on (by oth		11111		SEA 0363	L 22		

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- bearing plate capable of withstanding 61 lb uplift at joint
 - 18, 59 lb uplift at joint 12, 49 lb uplift at joint 16, 94 lb uplift at joint 17, 49 lb uplift at joint 14 and 93 lb uplift at joint 13.

minin May 14,2024

G



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)

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	EGR	Common Girder	1	2	Job Reference (optional)	165567121

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:53 ID:ySTbSIhb7CBDnk89ITG2qHzF_9Z-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



I 4-4-13	8-6-3	12-11-0	
4-4-13	4-1-5	4-4-13	

Plate Offsets (X, Y): [7:0-5-0,0-5-12], [8:0-5-0,0-5-12]

Scale = 1:46.4

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		TC	0.73	Vert(LL)	-0.04	7-8	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.28	Vert(CT)	-0.08	7-8	>999	180			
TCDL	10.0	Rep Stress Incr	NO		WB	0.62	Horz(CT)	0.01	6	n/a	n/a			
BCLL	0.0*	Code	IRC20	18/TPI2014	Matrix-MSH									
BCDL	10.0											Weight: 206 lb	FT = 20%	
LUMBER			4) Wind: ASCE	7-16: Vult=130mp	h (3-sec	cond aust)		Ur	iform Lo	oads (I	b/ft)		
TOP CHORD	2x4 SP No.2			Vasd=103mp	h; TCDL=6.0psf;	BCDL=6	.0psf; h=25ft	Cat.		Vert: 1-3	3=-60.	3-5=-60. 6-9=-2	0	
BOT CHORD	2x8 SP 2400F 2.0E			II; Exp B; En	closed; MWFRS (e	envelope	e) exterior zor	ne;	Co	ncentra	ted Lo	ads (lb)		
WEBS	2x4 SP No.3			cantilever lef	and right expose	d;endv	ertical left an	d	Vert: 12=-1487 (B) 13=-1487 (B) 14=-1487 (B)					
BRACING		right exposed; Lumber DOL=1.60 plate grip DOL=1.60 15=-1487 (B), 16=-1487 (B), 17=-451									7=-451 (B)			
TOP CHORD	Structural wood shea	athing directly applie	ed or											
	5-4-14 oc purlins ex	cept end verticals	5) TCLL: ASCE	TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15									
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc		Plate DOL=1	.15); Pf=20.0 psf ((Lum DC	L=1.15 Plate	•						
	bracing.			DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9;										
REACTIONS	(size) 6=0-5-8.9	=0-5-8		Cs=1.00; Ct=	Cs=1.00; Ct=1.10									
	Max Horiz 9=140 (LC	36)	6) Unbalanced	Unbalanced snow loads have been considered for this									
	Max Uplift 6=-147 (LC 13), 9=-280 (LC 12)				design. 7) This truss has been designed for a 10.0 psf bottom									
Max Grav 6=4837 (LC 6), 9=5024 (LC 5)				chord live load nonconcurrent with any other live loads.										
FORCES	(Ib) - Maximum Compression/Maximum (Ib) - This trues has been deer forcinged for a live load of 20 Oper													
	Tension				on the bottom chord in all areas where a rectangle									
TOP CHORD	1-2=-567/76, 2-3=-50	069/353, 3-4=-4973/	/332,	3-06-00 tall by 2-00-00 wide will fit between the bottom										
	4-5=-534/65, 1-9=-42	20/70, 5-6=-400/63	,	chord and an	v other members.									
BOT CHORD	8-9=-235/3839, 7-8=	-147/3128,	g) One H2.5A S	One H2 5A Simpson Strong-Tie connectors									
	6-7=-188/3765			recommende	d to connect truss	to bear	ing walls due	to						
WEBS	3-7=-175/2745, 4-7=	-93/1126,		UPLIFT at jt(s) 9 and 6. This co	onnectio	n is for uplift	only						
	3-8=-224/2972, 2-8=	-96/1143,		and does not	consider lateral for	orces.							1111.	
	2-9=-4996/255, 4-6=	-4935/243	1	0) This truss is	designed in accore	dance w	ith the 2018					N' ULCA	D	
NOTES				International	Residential Code	sections	R502.11.1 a	ind				"aTH O	10/11	
1) 2-ply truss	to be connected toget	her with 10d		R802.10.2 a	nd referenced star	idard AN	ISI/TPI 1.				N	OTHES	Side Alle	
(0.131"x3'	') nails as follows:		1	1) Use Simpsor	Strong-Tie HTU2	26 (20-10	d Girder,				22		King	
Top chord	s connected as follows	: 2x4 - 1 row at 0-9-	0	11-10dx1 1/2	Truss, Single Ply	Girder)	or equivalent	- 41		a de la compañía de l			n	
oc.				spaced at 2-	J-U oc max. startin	ig at 2-0-	-12 from the l	en		-				
Bottom ch	ords connected as folic	ows: 2x8 - 2 rows		bottom chore	2 to connect truss	s(es) to t	Dack lace of					SEA	∧L : =	
staggered	at 0-6-0 oc.	1	1	2) Lise Simpsor	Strong-Tie I I IS2	6 (1-100	Girder 3-10	d		Ξ.		0262	222 : =	
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.				Truss Single	Juse Sinds Buck Circles to equivalent at 12 of 12 from U30322									
 All loads are considered equally applied to all plies, except if noted as front (E) or back (B) face in the LOAD 				the left end to connect truss(es) to back face of bottom										
CASE(S) section. Ply to ply connections have been				chord.										
provided to distribute only loads noted as (F) or (B).				3) Fill all nail ho	les where hanger	is in cor	tact with lum	ber.			15	S GIN	EFICAN	
unless otherwise indicated.				OAD CASE(S)	Standard						1	10	CALIN	
 Unbalanced roof live loads have been considered for) Dead + Sno	w (balanced): Lur	nber Inc	rease=1.15. I	Plate				11, A. C	ALLUN	
this design	٦.			Increase=1	15							in num	IIIII.	

- 3) this design.
- Dead + Sno I (balanced): Lumber Increase=1.15, Plate 1) Increase=1.15

May 14,2024

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



Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	F	Monopitch	6	1	Job Reference (optional)	165567122

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:53 Page: 1 ID:9J?nSM2QtleiTNQUoeql4rzF_lq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







0-5-8	5-5-14	10-4-0	10-5-8
0-5-8	5-0-6	4-10-2	0-1-8

Scale = 1:40.9													
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TF	912014	CSI TC BC WB Matrix-MSH	0.39 0.27 0.42	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.03 -0.04 0.01	(loc) 5-10 5-10 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 46 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Wind: ASG Vasd=103 II; Exp B; and C-C E 7-3-12, E) left and rig exposed; and forces DOL=1.6(2) TCLL: AS Plate DOI DOL=1.15 Cs=1.00; 3) Unbalanci design. 4) This truss chord live	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 1=0-3-0, Max Horiz 1=138 (L Max Uplift 1=-152 (L Max Uplift 1=-152 (L Max Grav 1=494 (L) (lb) - Maximum Con Tension 1-2=-860/456, 2-3=- 1-5=-437/778, 4-5=- 2-5=-89/213, 2-4=-6 CE 7-16; Vult=130mpf mph; TCDL=6.0psf; B Enclosed; MWFRS (er Exterior(2E) 0-0-0 to 3- cterior(2E) 7-3-12 to 10 ght exposed; end vert porch left and right ex s & MWFRS for reaction 0 plate grip DOL=1.60 CE 7-16; Pr=20.0 psf (L 5); Is=1.0; Rough Cat F Ct=1.10 ed snow loads have be has been designed for load nonconcurrent w	eathing directly applie (cept end verticals. / applied or 8-9-11 oc 4=0-1-8 C 13) .C 10), 4=-159 (LC 1 C 21), 4=520 (LC 21) apression/Maximum -101/63, 3-4=-182/10 -437/778 008/522 n (3-second gust) CDL=6.0psf; h=25ft; nvelope) exterior zon 0-0, Interior (1) 3-0-C D-3-12 zone; cantilev ical left and right posed;C-C for memb posed;C-C f	5) * 1 or 3- ch 6) Be ed or 7) Be 9) Or 8) Pr be 9) Or 9) Or 10) Tr 10) Tr 10) Tr 12 R8 LOAD Cat. er er ers 1.15 ; iis	This truss h the bottor 06-00 tall b ord and ar aarings are earing at jo ing ANSU ¹ signer sho ovide mec earing plate ne H2.5A S commende PLIFT at jt(d does no nis truss is truss is truss is CASE(S)	has been designed in chord in all areas by 2-00-00 wide win yother members. assumed to be: , int(s) 4 considers FPI 1 angle to grain buld verify capacity hanical connections at joint(s) 4. Simpson Strong-Ti- det to connect truss (s) 1 and 4. This con- t consider lateral find designed in accord Residential Code and referenced starn Standard	Joint 4 S yarallel t n formula of bearin of bearin of bearin on connection orces. dance w sections ndard AN	e load of 20.1 a rectangle veen the bott SP No.3 . o grain value a. Building ng surface. ers) of truss : ctors ing walls due n is for uplift ith the 2018 R502.11.1 a ISI/TPI 1.	Opsf om to to only and				SEA 0363	L L L L B E E E R R L L L L L L L L L L L L L L L

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 BCEL Building Component Schut Information, purplication for the trust structure Bucking Component Advancement and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



G mmm May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	F1GE	Monopitch Supported Gable	1	1	Job Reference (optional)	165567123

3-3-8

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

Run; 9.04 S 8.73 Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:53 ID:05Rb2nqdzWbg0FxJai2r9FzF_oh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

ŵ

Page: 1



2x4 =



Scale = 1:22.4

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		тс	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.07	Vert(TL)	n/a	-	n/a	999			
TCDL	10.0	Rep Stress Incr	YES		WB	0.00	Horiz(TL)	0.00	3	n/a	n/a			
BCLL	0.0*	Code	IRC2018	/TPI2014	Matrix-MP									
BCDL	10.0											Weight: 11 lb	FT = 20%	
LUMBER			5)	Gable studs	spaced at 2-0-0) oc.								
TOP CHORD	2x4 SP No.2		6)	This truss ha	s been designe	d for a 10.0) psf bottom							
BOT CHORD	2x4 SP No.2			chord live loa	ad nonconcurrer	nt with any	other live loa	ds.						
WEBS	2x4 SP No.3		7)	* This truss h	nas been design	ned for a liv	e load of 20.0	Opsf						
BRACING				on the bottor	n chord in all ar	eas where	a rectangle							
TOP CHORD	Structural wood sheathing directly applied or		ed or	3-06-00 tall b	y 2-00-00 wide	will fit betw	een the botto	om						
	3-3-8 oc purlins, except end verticals.		0)	chord and any other members.										
BOT CHORD	RD Rigid ceiling directly applied or 10-0-0 oc		; 8)	Provide med	nanical connect	ION (Dy OIN	and the second sec	0						

	bracing.			1 120 lb
REACTIONS	(size)	1=2-10-0, 3=2-10-0, 4=2-10-0, 7-2-10-0	9)	One H2.
	Max Horiz	1=43 (LC 11), 7=43 (LC 11)		recomme UPLIFT a
	Max Uplift	1=-13 (LC 10), 3=-139 (LC 20), 4=-70 (LC 14), 7=-13 (LC 10)	10)	does not
	Max Grav	1=169 (LC 20), 3=38 (LC 14), 4=306 (LC 20), 7=169 (LC 20)	11)	This trus

FORCES

Tension TOP CHORD 1-2=-28/48, 2-3=-51/43, 2-4=-273/271 1-4=-40/41

BOT CHORD

NOTES

Wind: ASCE 7-16; Vult=130mph (3-second gust) 1) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 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

(lb) - Maximum Compression/Maximum

- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.

- of withstanding 13 lb uplift at joint uplift at joint 3 and 13 lb uplift at joint 1.
- 5A Simpson Strong-Tie connectors ended to connect truss to bearing walls due to at jt(s) 4. This connection is for uplift only and consider lateral forces.
- ndard bearing condition. Review required.
- s is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and 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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	FGE	Monopitch Supported Gable	1	1	Job Reference (optional)	165567124

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:53 ID:_?Pus1XWS1h0GXUA82Y8iGzF_IC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1







Scale = 1:35.6

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MSH	0.17 0.05 0.04	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 11-16 11-16 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 46 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, exi Rigid ceiling directly bracing. (size) 1=0-3-0,7 10=8-2-8, Max Horiz 1=138 (LC 9=-35 (LC 11=-50 (L Max Grav 1=108 (LC 8=227 (LC 9=-35 (LC 11=-50 (L Max Grav 1=1108 (LC 8=227 (LC 10=204 (L (lb) - Maximum Com Tension 1-2=-135/133, 2-3=- 4-5=-68/90, 5-6=-55, 1-11=-59/88, 10-11=	athing directly applied cept end verticals. applied or 10-0-0 oc 7=8-2-8, 8=8-2-8, 9=8 11=8-2-8 2 13) 2 11), 8=-34 (LC 10), 2 14), 10=-30 (LC 10), C 14) 2 20), 7=84 (LC 21), C 21), 9=219 (LC 21), C 21), 11=174 (LC 1 pression/Maximum 91/116, 3-4=-78/103, /69, 6-7=-68/39 -44/79, 9-10=-44/79,	2) 3) d or 4) 3-2-8, 5) 6) 7) 8) 9) 10)	Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. All plates are Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar One H2.5A S recommende UPLIFT at jt(uplift only an This truss is International	ed for wind loads ds exposed to wir d Industry Gable E alified building de 7-16; Pr=20.0 ps 1.5); Pf=20.0 ps	in the p and (norm and Deta signer at f (roof LL (Lum DC t B; Fully been cor s otherwi c. for a 10.0 with any d for a liv s where ill fit betv ie conne s to bear 11. This er latera dance w sections order 4 M	ane of the true al to the face) ils as applicab s per ANSI/TP .: Lum DOL=1 Pu=1.15 Plate Exp.; Ce=0.9; asidered for th se indicated. 0 psf bottom other live loac e load of 20.0 0 psf bottom other live loac e load of 20.0 ctors ing walls due t connection is l forces. ith the 2018 . R502.11.1 ar .SU/TP1 1	ss le, 11. 11. 15 is ls. osf m for					
WEBS	8-9=-44/79, 7-8=-44, 5-8=-186/118, 4-9=- 2-11=-142/141	/79 179/135, 3-10=-166/1	28, LO	AD CASE(S)	Standard		ISI/TFTT.				1111	ORTHON	N. N. S.
NOTES 1) Wind: AS(Vasd=103 II; Exp B; and C-C C 7-3-12, CC left and rig exposed; reactions : DOI = 1 60	2-11=-142/141 IOTES) 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) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 7-3-12, Corner(3E) 7-3-12 to 10-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOI =1.60									C		SEA 0363	L 22 EER. ALU

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)



GI mmm May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	G	Monopitch	9	1	Job Reference (optional)	165567125

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:53 Page: 1 ID:Dy_JjEEKvGAptckEgqDBdczF_tK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:37	
--------------	--

Plate Offsets (X, Y): [2:0-5-12,0-1-0]

Loading FCLL (roof) Snow (Pf) FCDL 3CLL 3CDL LUMBER	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.60 0.52 0.69	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.13 0.05	(loc) 8 7-8 7	l/defl >999 >872 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 46 lb	GRIP 244/190 FT = 20%	
TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x6 SP No.2 *Excep 2x4 SP No.3 Structural wood shea 4-5-5 oc purlins, exa Rigid ceiling directly bracing.	t* 8-6:2x4 SP No.2 athing directly applie cept end verticals. applied or 7-11-15 o	5) d or 6) c	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	psf or 1.00 times fl on-concurrent with s been designed fr ad nonconcurrent v nas been designed n chord in all areas by 2-00-00 wide will y other members. er(s) for truss to tr	at roof I other li or a 10. vith any for a liv s where Il fit betv	bad of 20.0 p ve loads. D psf bottom other live loa e load of 20. a rectangle veen the bott	ads. Opsf tom						
REACTIONS	(size) 2=0-5-8, 7 Max Horiz 2=121 (LC Max Uplift 2=-81 (LC Max Grav 2=491 (LC (lb) - Maximum Com	7= Mechanical C 11) C 10), 7=-74 (LC 14) C 21), 7=524 (LC 21) pression/Maximum	8) 9)	Bearing at jo using ANSI/ designer sho Provide mec bearing plate	TPI 1 angle to grain uld verify capacity hanical connection	of bear (by oth anding 7	to grain value a. Building ing surface. ers) of truss 74 lb uplift at	e to						
TOP CHORD 30T CHORD WEBS NOTES I) Wind: AS Vasd=100 II; Exp 8; and C-C1 1-11-13 tt cantilever right expo for reactio DOI =1 60	Tension 1-2=0/17, 2-3=-1714 4-5=-8/0, 4-7=-224/1 2-8=-574/1652, 7-8= 3-8=-70/407, 3-7=-1 CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) -0-10-8 to 5 e-8-0, Exterior(2E) 6-1 left and right exposed sed;C-C for members a shown; Lumber DO	/550, 3-4=-154/35, 19 -544/1531, 6-7=0/0 460/561 (3-second gust) CDL=6.0psf; h=25ft; (velope) exterior zone 1-11-13, Interior (1) 8-0 to 9-8-0 zone; ; end vertical left and and forces & MWFRS L=1.60 plate grip	10 11 Cat. a LC	7.) One H2.5A S recommende UPLIFT at jt(does not cor) This truss is International R802.10.2 ar DAD CASE(S)	Simpson Strong-Tie d to connect truss s) 2. This connect sider lateral forces designed in accord Residential Code nd referenced stan Standard	e conne to bear on is fo dance w sections dard AN	ctors ing walls due uplift only a ith the 2018 \$502.11.1 USI/TPI 1.	and		U	A A A	ORTH CA	ROL	· Moun
 DOL=1.00 TCLL: AS Plate DOI DOL=1.13 Cs=1.00; Unbalanc design. 	, CE 7-16; Pr=20.0 psf (ℓ ==1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat B Ct=1.10 ed snow loads have be	roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; een considered for thi	.15 s							11111		0363	EER.	unning.

- 2 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 3) design.

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



G mmm May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	GSE	Monopitch	1	1	Job Reference (optional)	165567126

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:53 Page: 1 ID:j7LOAWWFe1s7RV5MhJbHFGzF_qO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:37

Plate Offsets (X, Y): [3:0-7-4,0-0-7]

Loading		(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)		20.0	Plate Grip DOL	1.15		тс	0.42	Vert(LL)	-0.02	10	>999	240	MT20	244/190		
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.22	Vert(CT)	-0.03	9-10	>999	180				
TCDL		10.0	Rep Stress Incr	YES		WB	0.08	Horz(CT)	0.00	3	n/a	n/a				
BCLL		0.0*	Code	IRC201	8/TPI2014	Matrix-MSH		· · /								
BCDL		10.0											Weight: 41 lb	FT = 20%		
				2)	Truss desig	ned for wind loads i	in the n	ane of the tru		15) Gra	nhical n	urlin re	presentation doe	s not denict the		
	274 CD N	<u> </u>		Z)	only For st	ide exposed to wind	d (norm	al to the face	u33	or th	prilical p	tation of	of the nurlin along	the top and/or	5 3126	
	2X4 OF IN	0.2 o 2 *Evoon	+* 11 0.0v/ CD No 0		see Standar	d Industry Gable Fr	nd Deta	ils as annlica	ihle	bott	om choi	d				
	2x0 SF N	0.2 EXCEP	1 11-0.234 OF NU.2		or consult a	alified building des	igner a	s per ANSI/TI	PI 1			G. N. Star	ndard			
NEBS NTHERS	2x4 SF N 2x4 SP N	0.3		3)	TCLL: ASCE	7-16: Pr=20.0 psf	(roof LL	: Lum DOL=	1.15	LUAD	ASE(S	Jola	liualu			
	274 01 10	0.5		-,	Plate DOL=1.15: $Pf=20.0 \text{ psf}$ (Lun DOL=1.15 Plate											
	Christen	م مم م	منام معانده منابد		DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9;											
	Siluciula 6.0.0 co.		auting directly applie	verticals Cs=1.00; Ct=1.10												
	Rigid ceil	ing directly	applied or 10-0-0 oc	4)	Unbalanced	snow loads have b	een cor	sidered for t	his							
	bracing	ing uncoury			design.											
	(cizo)	2-0593	-4 5 9 0- Mochani	5)	This truss ha	as been designed fo	or great	er of min roof	f live							
LACHONS	(5120)	2=0-5-6, 0	12-4-5-8	ual,	load of 12.0	psf or 1.00 times fla	at roof le	oad of 20.0 p	sf on							
	Max Horiz	3–164 (1 (12-+ 0 0 11) 12-164 (I C 11	n .	overhangs n	on-concurrent with	other liv	/e loads.								
	Max Liplift	236 (1 C	10) 3-120 (IC 10)	6)	Gable studs	3 studs spaced at 2-0-0 oc.										
	Max Opint	9=-26 (LC	: 14) 11=-148 (I C 14	(, 7) 4)	This truss ha	las been designed for a 10.0 pst bottom										
		12=-120 (I C 10)	.,,	chord live loa	ad nonconcurrent w	ith any	n any other live loads.								
	Max Grav	2=88 (I C	21) 3=330 (I C 1) 9	=256 8)	* This truss has been designed for a live load of 20.0psf											
	max orat	(LC 21), 1	1=628 (LC 21), 12=3	330	on the bottor	n chord in all areas	where	a rectangle								
		(LC 1)	(-),		3-06-00 tall t	by 2-00-00 wide will	TIT DETV	veen the bott	om							
FORCES	(lb) - Max	imum Com	pression/Maximum	0)	Pooringo or	by other members.	int 2 CI									
	Tension			9)	SD No 2	assumed to be. Ju	111 3 3	- NO.2 , JOIN	. 2							
TOP CHORD	1-2=0/17,	2-3=-149/	129, 3-4=-429/446,	1()) Refer to gird	er(s) for truss to tru	ss conr	ections						1111		
	4-5=-114/	19, 5-6=-7	0/36, 6-7=-8/0,	1.) Rearing at in	int(s) 3 11 2 3 co	nsiders	parallel to or	ain				IN TH CA	Roille		
	6-9=-168/	/73		•	value using	ANSI/TPI 1 angle to	arain f	ormula. Buil	dina			1	A	2 4/11	l.	
BOT CHORD	3-11=-63	1/574, 10-1	1=-18/64, 9-10=-18/	64,	designer sho	ould verify capacity	of bear	ng surface.				~ ~	Y FESS	DN V	-	
	8-9=0/0			1:	2) Provide mec	hanical connection	(by oth	ers) of truss t	to		4		11 /	C	/	
NEBS	4-11=-39	7/209, 5-10	=-81/83		bearing plate	e capable of withsta	nding 2	6 lb uplift at j	joint		1		. Q			
NOTES					9, 148 lb upl	ift at joint 11 and 36	6 lb upli	ft at joint 2.			-	:	SEA	r	-	
1) Wind: AS	CE 7-16; Vu	lt=130mph	(3-second gust)	1:	3) One H2.5A \$	Simpson Strong-Tie	conne	ctors			=		JLA	- :	=	
Vasd=103	8mph; TCDL	.=6.0psf; B0	CDL=6.0psf; h=25ft;	Cat.	recommende	ed to connect truss	to bear	ing walls due	e to		=		0363	22 🔅	-	
II; Exp B;	Enclosed; N	IWFRS (en	velope) exterior zon	е	UPLIFT at jt	s) 3. This connection	on is foi	uplift only a	nd		-	1			Ξ	
and C-C E	Exterior(2E)	-0-10-8 to	1-11-13, Interior (1)		does not cor	sider lateral forces	•					-	·	- · · ·	3	
1-11-13 to	o 6-8-0, Exte	erior(2E) 6-	8-0 to 9-8-0 zone;	. 14	 This truss is 	designed in accord	ance w	ith the 2018				10	N. SNOW	FRIX	2	
cantilever	left and righ	nt exposed	; end vertical left and	i O	International	Residential Code s	sections	6 K502.11.1 a	and			1	A GIN	F. CR		
right expo	sed;C-C for	members	and forces & MWFR	5	R802.10.2 a	nu referencea stan	uaro AN	151/TPL1.				1	CA C	II BEIN		
	nis snown; L	UU 19dniu	L=1.00 plate grip										1, 7. 6	in the second se		
DOL=1.60	,												20010	tine.		

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

May 14,2024



Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	H1	Monopitch	1	1	Job Reference (optional)	165567127

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:54 ID:jzudvf5?HySB7qACgSkvP7y94VX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:62.2

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

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 NO IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.60 0.29 0.48	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.02 -0.04 0.01	(loc) 6-7 6-7 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 98 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD WEBS	 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x6 SP No.2 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. 1 Row at midpt (size) 5=0-5-8, 1 Max Horiz 7=340 (L0 Max Uplift 5=-198 (L Max Grav 5=948 (L0 (lb) - Maximum Com Tension 1-2=0/37, 2-3=-451/ 4-5=-663/96, 2-7=-4 6-7=-332/507, 5-6=-3-6=0/203, 3-5=-464 	athing directly applie cept end verticals. 'applied or 10-0-0 oc 4-5 7=0-5-8 C 11) C 14), 7=-15 (LC 14) C 21), 7=532 (LC 21) npression/Maximum 98, 3-4=-222/185, 83/148 128/4/18	4) 5) 6) d or 7) 8) 9) 10)	This truss ha load of 12.0 µ overhangs ni This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar Bearing at jo using ANSI/1 designer sho One H2.5A S recommende UPLIFT at jt(and does noi This truss is International R802.10.2 at) In the LOAD of the truss a	Is been designed for psf or 1.00 times fit on-concurrent with is been designed for ad nonconcurrent v has been designed in chord in all areas by 2-00-00 wide will yo other members. int(s) 5 considers p IPI 1 angle to grain build verify capacity Simpson Strong-Tie do to connect truss (s) 7 and 5. This con- t consider lateral for designed in accord Residential Codes and referenced stan CASE(S) section, are noted as front (I Standard	or greate at roof le other lino or a 10.1 vith any for a livs s where Il fit betw barallel th formula of bear e conne- to bear bance w sections dance w sections danca AN Ioads a F) or ba	er of min roof pad of 20.0 p ve loads. 0 psf bottom other live loz e load of 20.1 a rectangle veen the bott o grain value a. Building ng surface. ctors ng walls due n is for uplift ith the 2018 R502.11.1 a ISI/TPI 1. oplied to the ck (B).	f live sf on ads. Opsf om e to only and face				weignit. so ib	FT = 20%	
NOTES 1) Wind: AS Vasd=10: II; Exp B; and C-C to 7-6-4, and right C for mer shown; L	CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B Enclosed; MWFRS (er Exterior(2E) -0-10-8 to Exterior(2E) 7-6-4 to 10 exposed ; end vertical mbers and forces & MW umber DOL=1.60 plate	(3-second gust) CDL=6.0psf; h=25ft; tvelope) exterior zon 2-1-8, Interior (1) 2-1 0-6-4 zone; cantileven left and right exposed VFRS for reactions grip DOL=1.60	1) Cat. e -8 r left d;C-	Dead + Sno Increase=1 Uniform Loo Vert: 1-2: Concentrate Vert: 4=-	ow (balanced): Lun .15 ads (lb/ft) =-60, 2-4=-60, 5-7= ed Loads (lb) 380 (F)	nber Inc =-20	rease=1.15,	Plate		Contraction of the second s	ALL A	SEA 0363	ROUNT	

- 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.



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.sbcaccomponents.com)

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	H2	Monopitch	1	1	Job Reference (optional)	165567128

Scale = 1:62.2

Run; 9.04 S 8.73 Apr 25 2024 Print; 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:54 Page: 1 ID:8Gnv57dJIMKk10In1udxtly92JP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





TCLL (roof) Snow (Pf) TCDL BCLL BCDL	20.0 20.0 10.0 0.0* 10.0	Plate Grip DOL Lumber DOL Rep Stress Incr Code	1.15 1.15 NO IRC2018	/TPI2014	TC BC WB Matrix-MSH	0.60 0.30 0.49	Vert(LL) Vert(CT) Horz(CT)	-0.02 -0.04 0.01	5-6 5-6 4	>999 >999 n/a	240 180 n/a	MT20 Weight: 97 lb
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x6 SP No.2 Structural wood shea 6-0-0 oc purlins, exc Rigid ceiling directly bracing. 1 Row at midpt (size) 4=0-5-8, 6 Max Horiz 6=328 (LC Max Uplift 4=-196 (LI Max Grav 4=951 (LC	athing directly applie sept end verticals. applied or 10-0-0 oc 3-4 5= Mechanical \$11) \$20), 6=468 (LC 20)	4) 5) d or 6) 7) 8) 9)	Inis truss ha chord live loa: * This truss h on the bottor 3-06-00 tall h chord and ar Refer to gird Bearing at jo using ANSI/ designer sho One H2.5A S recommende UPLIFT at jtd does not cor This truss is International	is been designed ad nonconcurrent has been designed in chord in all area by 2-00-00 wide w hy other members er(s) for truss to tr int(s) 4 considers FPI 1 angle to grai build verify capacity Simpson Strong-Ti ed to connect truss (s) 4. This connect issider lateral force designed in accor Residential Code	tor a 10. with any d for a liv is where uss conr parallel n formul y of bear ie conne s to bear tion is for s. dance w sections	U psr bottom other live load of 20. a rectangle veen the bott nections. to grain value a. Building ing surface. ctors ing walls due r uplift only a ith the 2018 s R502.11.1 a	ads. Opsf com e to nd and				
FORCES	(lb) - Maximum Com Tension	pression/Maximum	10)	R802.10.2 a In the LOAD	nd referenced star CASE(S) section	ndard AN , loads a	NSI/TPI 1. pplied to the	face				
TOP CHORD BOT CHORD WEBS	1-2=-451/92, 2-3=-22 1-6=-419/101 5-6=-316/495, 4-5=- 2-5=0/202, 2-4=-472	23/184, 3-4=-660/95, 128/424 /195, 1-5=-99/275	LO. 1)	of the truss a AD CASE(S) Dead + Sno Increase=1	are noted as front Standard ow (balanced): Lui .15	(F) or ba mber Inc	ck (B). rease=1.15,	Plate				

NOTES 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 7-6-4, Exterior(2E) 7-6-4 to 10-6-4 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

- - Uniform Loads (lb/ft) Vert: 1-3=-60, 4-6=-20
 - Concentrated Loads (lb) Vert: 3=-380 (F)



GRIP 244/190

FT = 20%

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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	Н3	Monopitch	2	1	Job Reference (optional)	165567129

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:54 ID:A?EbZVSK3TRLQ4LGGcpFRfy94Xe-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





|--|

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MSH	0.90 0.26 0.47	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.03 -0.05 0.01	(loc) 7-8 7-8 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 78 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, exi Rigid ceiling directly bracing. 1 Row at midpt (size) 7= Mecha Max Horiz 9=340 (LC Max Uplift 7=-146 (L Max Grav 7=583 (LC (lb) - Maximum Com Tension 1-2=0/37, 2-3=-429// 4-5=-17/0, 4-7=-248, 8-9=-328/494, 7-8=- 3-8=0/200, 3-7=-461	athing directly applie cept end verticals. applied or 10-0-0 oc 4-7 nical, 9=0-5-8 C 11) C 14), 9=-6 (LC 14) C 21), 9=509 (LC 21) pression/Maximum 97, 3-4=-210/188, /82, 2-9=-462/150 128/409, 6-7=0/0 /199, 2-8=-108/269	 4) This truss load of 12 overhangs 5) This truss chord live d or 6) * This truss on the bot 3-06-00 ta chord and 7) Refer to g 8) Provide m bearing pl 7. 9) One H2.5. recommer UPLIFT at does not contained to the second and the second and the second second to the second secon	has been designed f 0 psf or 1.00 times fi non-concurrent with has been designed fload nonconcurrent is has been designed om chord in all area l by 2-00-00 wide wi any other members. rder(s) for truss to tru- echanical connection ate capable of withst A Simpson Strong-Ti ded to connect truss jt(s) 9. This connect onsider lateral forces is designed in accorr al Residential Code and referenced star 5) Standard	for great lat roof lo n other lin for a 10.1 with any d for a liv s where ill fit betw uss conr n (by oth anding 1 e conne s to bear s to bear s to bear s to bear s to bear s and and AN	er of min roo bad of 20.0 p ve loads. D psf bottom other live loa e load of 20. a rectangle veen the bott nections. ers) of truss 46 lb uplift a ctors ing walls due r uplift only a s R502.11.1 a ISI/TPI 1.	f live osf on ads. Opsf tom to to to to nd					
NOTES 1) Wind: ASG Vasd=103 II; Exp B; and C-C E to 7-8-0, E and righte C for men shown; Lu 2) TCLL: AS Plate DOL DOL=1.15 Cs=1.00; 3) Unbalance design.	CE 7-16; Vult=130mph Smph; TCDL=6.0psf; Bi Enclosed; MWFRS (en Exterior(2E) -0-10-8 to 1 Exterior(2E) 7-8-0 to 10 exposed ; end vertical I hbers and forces & MW umber DOL=1.60 plate CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat E Ct=1.10 ed snow loads have be	(3-second gust) (3-second gust) (Velope) exterior zone 2-1-8, Interior (1) 2-1 -8-0 zone; cantilever eft and right exposed (FRS for reactions grip DOL=1.60 roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; wen considered for thi	Cat. e -8 left 1;C- .15						Willing		SEA 0363	L 22 BERLIN

- 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; 2) Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

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

GILB 100000 May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	11	Monopitch	1	1	Job Reference (optional)	165567130

 Run:
 9.04 S
 8.73 Apr 25 2024 Print:
 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:54
 Page:
 1

 ID:TVTffuiZsp7mVnXghlb00Ay94Qs-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f
 Page:
 1



Scale = 1:61.4

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	TC	0.61	Vert(LL)	-0.03	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.04	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 81 lb	FT = 20%
	ABER 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											

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 4-7:2x4 SP No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or
	6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc
	bracing.
WEBS	1 Row at midpt 4-7
REACTIONS	(size) 7= Mechanical, 9=0-5-8
	Max Horiz 9=357 (LC 11)
	Max Uplift 7=-157 (LC 11)
	Max Grav 7=565 (LC 21), 9=494 (LC 21)
FORCES	(lb) - Maximum Compression/Maximum
	Tension
TOP CHORD	1-2=0/37, 2-3=-379/96, 3-4=-209/190,
	4-5=-17/0, 4-7=-240/81, 2-9=-450/148
BOT CHORD	8-9=-337/482, 7-8=-142/376, 6-7=0/0

WEBS 3-8=0/173, 3-7=-447/200, 2-8=-120/275 NOTES

- 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 7-3-0, Exterior(2E) 7-3-0 to 10-3-0 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
- 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.
 This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
- 6) * 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.
- 7) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 157 lb uplift at joint 7
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 LOAD CASE(S) Standard



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

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	J2	Piggyback Base	3	1	Job Reference (optional)	165567131

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:54 ID:Nc3tSbUTdtzhFoU2aKqC93y92D7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

May 14,2024

818 Soundside Road Edenton, NC 27932



Scale = 1:69.2

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

Loa TCL Sno TCC BCL BCL	ding .L (roof) w (Pf) DL .L DL		(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	0.90 0.43 0.57	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.07 -0.12 0.01	(loc) 6-7 6-7 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 161 lb	GRIP 244/190 FT = 20%
LUN TOF BOT WEE OTH BRA TOF	ABER CHORD CHORD BS HERS ACING CHORD	2x4 SP No. 2x4 SP No. 2x4 SP No. No.2 2x6 SP No. Structural v 6-0-0 oc pu 2-0-0 oc pu	2 2 3 *Excep 2 wood shea urlins, exc urlins, (4-1)	* 5-6,7-4,6-4:2x4 Sl athing directly applie ept end verticals, ar J-14 max.): 4-5.	3) P 4) 5) ed or nd 6)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced s design. This truss has load of 12.0 p overhangs no Provide adeq	7-16; Pr=20.0 psf (15); Pf=20.0 psf (L s=1.0; Rough Cat B 1.10 snow loads have be s been designed for sf or 1.00 times fla on-concurrent with uate drainage to pla	(roof LL Lum DC 3; Fully een cor or greate at roof lo other liv revent v	.: Lum DOL= bL=1.15 Plate Exp.; Ce=0. asidered for t er of min roo bad of 20.0 p re loads. water pondin	:1.15 e 9; his f live vsf on g.					
BOT WEE REA	2-0-0 oc purins (4-10-14 max.): 4-5. BOT CHORD Rigid ceiling directly applied or 9-6-15 oc bracing. WEBS 1 Row at midpt 5-6, 3-7, 4-6 (size) 6=0-5-8, 10=0-5-8 Max Horiz 10=392 (LC 13) Max Uplift 6=-235 (LC 11), 10=-69 (LC 14) Max Grav 6=1315 (LC 43), 10=910 (LC 44)				2 7) 8) 4) 9)	 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 3) * 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. 9) Bearing at joint(s) 6 considers parallel to grain value 									
Max Grav 6=1315 (LC 43), 10=910 (LC 44) FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-2=0/37, 2-3=-808/114, 3-4=-613/196, 4-5=-143/186, 5-6=-773/151, 2-10=-820/133 BOT CHORD 9-10=-375/448, 7-9=-219/826, 6-7=-158/529 WEBS 3-9=-88/121, 3-7=-454/188, 4-7=-77/618, 4-6=-829/151, 2-9=-7/621				10) /133 /529 3, 11)	 designer should verify capacity of bearing surface. 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 6. This connection is for uplift only and does not consider lateral forces. 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and 										
 NOTES Unbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 7-1-1, Exterior(2R) 7-1-1 to 14-4-4, Exterior(2E) 14-4-4 to 17-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C- C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 			r 12, Cat. 13, ie 1-8 LO ed ; and	 R802.10.2 and referenced standard ANSI/TPT1. 2) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord. 3) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B). OAD CASE(S) Standard Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (Ib/ft) Vert: 1-2=-60, 2-4=-60, 4-5=-60, 6-10=-20 Concentrated Loads (Ib) Vert: 5=-436 (F) 											

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

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	K1	Roof Special	4	1	Job Reference (optional)	165567132

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:54 ID:jzudvf5?HySB7qACgSkvP7y94VX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:58.4

													_
Loading TCLL (roof)	(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15	CSI TC	0.95	DEFL Vert(LL)	in -0.24	(loc) 5-6	l/defl >398	L/d 240	PLATES MT20	GRIP 244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.40	5-6	>233	180			
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.15	6	n/a	n/a			
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH									
BCDL	10.0			-							Weight: 39 lb	FT = 20%	
LUMBER	IMBER 6) * This truss has been designed for a live load of 20.0psf												

LUMBER		
TOP CHORD	2x4 SP N	o.1
BOT CHORD	2x4 SP N	0.2
WEBS	2x4 SP N	0.3 *Except* 6-1:2x4 SP No.2
BRACING		
TOP CHORD	Structural except en	l wood sheathing directly applied, id verticals.
BOT CHORD	Rigid ceili bracing.	ing directly applied or 6-0-0 oc
REACTIONS	(size)	4=0-5-8, 6=0-5-8
	Max Horiz	4=-226 (LC 10)
	Max Uplift	6=-101 (LC 15)
	Max Grav	4=383 (LC 24), 6=468 (LC 6)
FORCES	(lb) - Max Tension	imum Compression/Maximum
TOP CHORD	1-2=-237/ 1-6=-331/	(154, 2-3=-283/0, 3-4=-238/0, (280
BOT CHORD	5-6=-110/	/77, 4-5=-434/158
WEBS	2-5=-199/	/147, 3-5=-136/433

NOTES

- 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 3-1-12, Interior (1) 3-1-12 to 4-11-4, Exterior(2E) 4-11-4 to 7-11-4 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; 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.
- 4) Provide adequate drainage to prevent water ponding.
- 5) 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.
- 7) Bearings are assumed to be: , Joint 6 SP No.2 .
- Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 LOAD CASE(S) Standard

SEAL 036322 MGINEER A. GILBER

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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	L01	Common Supported Gable	1	1	Job Reference (optional)	165567133

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:54 ID:KsacwLEQ4aGCSQ1?F_w3tZzGc9R-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



			L			1	3-7-0						
Scale = 1:37.7												I	
Plate Offsets ((X, Y): [2:0-0-14,0-3-3]], [10:0-0-14,0-3-3]											
Loading	(psf)	Spacing	1-11-4		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.06	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 73 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS WEDGE	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Left: 2x4 SP No.3 Right: 2x4 SP No.3		2)	 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 3-9-8, Corner(3E) 3-9-8 to 9-9-8, Exterior(2N) 9-9-8 to 11-5-8, Corner(3E) 11-5-8 to 14-5-8 zone; cantilever left 13) This truss is designed in accordance with th International Residential Code sections R50 R802.10.2 and referenced standard ANSI/T LOAD CASE(S) Standard 								e with the 2018 tions R502.11.1 and d ANSI/TPI 1.	
BRACING TOP CHORD	Structural wood sheat 6-0-0 oc purlins.	athing directly applie	ed or	C for member shown; Luml	ers and forces & Notes Documents and forces ber DOL=1.60 pla	AWFRS f ate grip D	or reactions OL=1.60	ea;c-					
BOT CHORD	Rigid ceiling directly bracing.	applied or 10-0-0 oc	3)	Truss desig	ned for wind load	s in the p	lane of the tr	uss					

REACTIONS	(size) 2=13-7-0, 10=13-7-0, 12=13-7-0, 13=13-7-0, 14=13-7-0, 15=13-7-0, 16=13-7-0 Max Horiz 2=116 (LC 13) Max Uplift 2=-1 (LC 15), 10=-3 (LC 15), 12=-77 (LC 15), 13=-57 (LC 15), 15=-58 (LC 14), 16=-68 (LC 14) Max Grav 2=175 (LC 22), 13=242 (LC 22), 12=245 (LC 22), 13=242 (LC 22), 14=142 (LC 28), 15=242 (LC 21), 16=245 (LC 21)	 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
FORCES	(Ib) - Maximum Compression/Maximum	 All plates are 2x4 MT20 unless otherwise indicated. All plates are 2x4 MT20 unless otherwise indicated.
TOP CHORD	1-2=0/35, 2-3=-100/57, 3-4=-79/79, 4-5=-81/71, 5-6=-84/140, 6-7=-84/140, 7-8=-76/71, 8-9=-50/41, 9-10=-71/18, 10-11=0/35	 a) Gable requires communuous bottom chord bearing. a) Gable studs spaced at 2-0-0 oc. b) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. c) the trust per base has designed for a live load of 20 Operform.
BOT CHORD	2-16=-40/120, 15-16=-36/118, 14-15=-36/118, 13-14=-36/118, 12-13=-36/118, 10-12=-40/120	 anis truss has been designed for a live load of 20.0pst 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
WEBS	6-14=-101/0, 5-15=-207/103, 4-16=-197/125, 7-13=-207/103, 8-12=-197/125	12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb unlift at joint 2

NOTES

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

3 lb uplift at joint 10, 58 lb uplift at joint 15, 68 lb uplift at joint 16, 57 lb uplift at joint 13 and 77 lb uplift at joint 12.

0 ANALITICA IN THE REAL OF THE R SEAL 036322 G mmm



Page: 1

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science 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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	L02	Common Girder	1	2	Job Reference (optional)	165567134

Scale = 1:41.7

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:55 ID:jSS2JQ00P25JO8ydTLdvPIzGcCJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Plate Offsets (X, Y): [1:0-0-2,0-0-2], [5:0-0-2,0-0-2], [6:0-6-4,0-2-8], [7:0-6-0,0-6-4], [8:0-6-4,0-2-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	1-11-4 1.15 1.15 NO IRC2018	/TPI2014	CSI TC BC WB Matrix-MSH	0.48 0.47 0.77	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.06 -0.13 0.03	(loc) 7-8 7-8 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 207 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD 2x6 BOT CHORD 2x8 WEBS 2x4 BRACING TOP CHORD Stru 4-3- BOT CHORD Stru 4-3- BOT CHORD Rigi brac REACTIONS (size) Max H Max C FORCES (b) - Ten: TOP CHORD 1-2= 4-5= BOT CHORD 1-2= 4-5= BOT CHORD 1-2= 5-6= WEBS 2-8= 4-7= NOTES 1) 2-ply truss to be (0.131"x3") nails Top chords con staggered at 0-9 Bottom chords c staggered at 0-5 Web connected 0-3-0 oc. 2) All loads are con except if noted a CASE(S) sectior provided to distri unless otherwise 3) Unbalanced roof this design.	SP No.2 SP No.2 SP 2400F 2.0E SP No.3 *Excep d ceiling directly ing. 1=0-5-8, 4 doriz 1=-103 (L Grav 1=7850 (I Maximum Com distribution of the second distribution of the second distri	t* 7-3:2x4 SP No.1 athing directly applied applied or 10-0-0 oc 5=0-5-8 C 8) C 5), $5=7302$ (LC 6) pression/Maximum 7970/0, 3-4=-7966/0, 0233, 6-7=0/9094, 0233, 6-7=0/9094, 025/0, 3-7=0/8375, 3365 ther with 10d s: 2x6 - 2 rows ows: 2x8 - 3 rows \cdot 2 rows staggered at applied to all plies, ck (B) face in the LO/ nections have been noted as (F) or (B), been considered for	4) d or 5) 6) 7) 8) 9) 10) 11) LO 1) XD	Wind: ASCE Vasd=103mp II; Exp B; End cantilever left right exposed TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; CtE Unbalanced: design. This truss ha chord live loa * This truss ha chord live loa * This truss ha chord live loa this truss is on the botton 3-06-00 tall b chord and an This truss is on the botton 3-06-00 tall b chord and an This truss is International R802.10.2 ar Use Simpsor 11-10dx11/2 max. starting connect truss Fill all nail ho AD CASE(S) Dead + Snc Increase=1. Uniform Loa Vert: 1-33 Concentrate Vert: 8=- 19=-1994	7-16; Vult=130mpf b; TCDL=6.0psf; B closed; MWFRS (e and right exposed d; Lumber DOL=1.6 7-16; Pr=20.0 psf (15); Pf=20.0 psf (L s=1.0; Rough Cat f cl.10 snow loads have but s been designed for d nonconcurrent w as been designed for d nonconcurrent w s been designed for d nonconcurrent w as been d nonconcurrent w as been d noncon	(roof LL Lum DC B; Fully een cor or a 10.0 for a liv where fit betw ance wi sections dard AN 6 (20-16 int space eff end bottor s in con ber Incl 2=-19	sond gust) .0psf; h=25ft .0psf; h=25ft .0psf; h=25ft .0psf; h=25ft .0psf; h=25ft .0psf; h=25ft .15 Plate Exp.; Ce=0.5 .15 Plate .15 Plat	; Cat. ne; nd 60 1.15 9; his ads. 0psf om and bc Plate		A Contraction of the second se		SEA 0363		

May 14,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	PB1	Piggyback	8	1	Job Reference (optional)	165567135

Run; 9.04 S 8.73 Apr 25 2024 Print; 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:55 ID:iEW3YzpCkaFU49jPj8F7u4y94Qj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1.30.0													
Plate Offsets ((X, Y): [2:0-2-13,0-1-8	3], [6:0-2-13,0-1-8]										-	
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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.08	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 48 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins. Rigid ceiling directly bracing	eathing directly applied or 10-0-0	2) ed or c	Wind: ASCE Vasd=103m II; Exp B; Er and C-C Ext to 9-2-9, Ext and right exj C for membu shown; Lum	: 7-16; Vult=130m ph; TCDL=6.0psf closed; MWFRS erior(2E) 0-3-1 to erior(2E) 9-2-9 to posed ; end vertic ers and forces & I ber DOL=1.60 pla	iph (3-sec ; BCDL=6 (envelope 3-3-1, E) 3-3-1, E) 12-2-9 zi cal left and WWFRS f ate grip D	cond gust) .0psf; h=25ft e) exterior zo tterior(2R) 3- one; cantileve l right expose or reactions OL=1.60	t; Cat. ne ·3-1 er left ed;C-	Det con	ail for C sult qua	ird Indi onnect lified b) Sta	ustry Piggyback tion to base truss wilding designer. ndard	russ Connection as applicable, or
REACTIONS	(size) 2=11-1-0, 9=11-1-0,	, 6=11-1-0, 8=11-1-0 , 10=11-1-0, 11=11-	_{),} 3) 1-0,	Truss desig only. For st	ned for wind load uds exposed to w	ls in the p ind (norm	lane of the tr al to the face	uss e),					

- 15=11-1-0 Max Horiz 2=-105 (LC 12), 11=-105 (LC 12) Max Uplift 2=-37 (LC 10), 6=-17 (LC 11), 8=-132 (LC 15), 10=-133 (LC 14), 11=-37 (LC 10), 15=-17 (LC 11) Max Grav 2=83 (LC 26), 6=67 (LC 25), 8=433
- (LC 22), 9=281 (LC 22), 10=433 (LC 21), 11=83 (LC 26), 15=67 (LC 25)
- FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-2=0/16, 2-3=-107/92, 3-4=-189/96, 4-5=-189/96, 5-6=-84/58, 6-7=0/16 BOT CHORD 2-10=-28/72, 9-10=-28/72, 8-9=-28/72, 6-8=-28/72
- WEBS 4-9=-193/19. 3-10=-407/211. 5-8=-407/211
- NOTES
- 1) Unbalanced roof live loads have been considered for this design.

- see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15
- Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this 5) design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing. 7)
- 8) Gable studs spaced at 4-0-0 oc. 9)
- This truss has been designed for a 10.0 psf bottom 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) 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.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

anna anna G mmm May 14,2024

818 Soundside Road

Edenton, NC 27932

SEAL

036322

O

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 that the operating of the second se and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



VIIIIIIIIIII

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	PB1GE	Piggyback	2	1	Job Reference (optional)	165567136

Run; 9.04 S 8.73 Apr 25 2024 Print; 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:55 ID:bQaQZ9EDEEiwq0yVzEIB2Yy94Jj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.8													
Plate Offsets (X, Y): [2	2:0-2-13,0-1-8]	, [8:0-2-13,0-1-8]											
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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999			
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a	n/a			
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH									

BUDL		10.0								
LUMBER TOP CHORD BOT CHORD OTHERS	2x4 SP N 2x4 SP N 2x4 SP N	0.2 0.2 0.3								
BRACING										
TOP CHORD	Structural 6-0-0 oc r	l wood shea ourlins.	athing directly applied or							
BOT CHORD	Rigid ceili bracing.	ing directly	applied or 10-0-0 oc							
REACTIONS	(size) Max Horiz	2=11-1-0, 11=11-1-0 14=11-1-0 2=-105 (L0	8=11-1-0, 10=11-1-0, 0, 12=11-1-0, 13=11-1-0 0, 15=11-1-0, 19=11-1-0 C 12), 15=-105 (LC 12)							
	Max Uplift	2=-18 (LC 10), 10=-66 (LC 15), 11=-71 (LC 15), 13=-71 (LC 14), 1467 (LC 14), 1518 (LC 10)								
	Max Grav	2=100 (LC 10=207 (L 12=131 (L 14=207 (L 19=91 (LC	C 26), 8=91 (LC 1), _C 22), 11=269 (LC 22), _C 28), 13=269 (LC 21), _C 21), 15=100 (LC 26), C 1)							
FORCES	(lb) - Max Tension	imum Com	pression/Maximum							
TOP CHORD	1-2=0/16, 4-5=-97/1	2-3=-89/75 06, 5-6=-97	5, 3-4=-86/57, 7/106, 6-7=-83/41,							
BOT CHORD	7-8=-66/4 2-14=-34/ 11-12=-34	·2, 8-9=0/16 /83, 13-14= 4/83, 10-11	6 =-34/83, 12-13=-34/83, =-34/83, 8-10=-34/83							
WEBS	5-12=-91/ 6-11=-229	0, 4-13=-22 9/117, 7-10	29/117, 3-14=-167/91,)=-167/91							

NOTES

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

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

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 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.
- All plates are 2x4 MT20 unless otherwise indicated. 7)
- Gable requires continuous bottom chord bearing. 8)
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf 11) on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom
- chord and any other members. 12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 13, 14, 11, and 10. This connection is
- for uplift only and does not consider lateral forces. 13) 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.

14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer. LOAD CASE(S) Standard

Weight: 56 lb

FT = 20%

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 that the operating of the second se and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	PB1GR	Piggyback	1	2	Job Reference (optional)	165567137

Scale = 1:36.8

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:55 ID:nQ3TCLvnvyfTTDuVPZSo4yy90TY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Plate Offsets (X, Y):	[2:0-2-13,0-1-8], [6:0-2-13,0-1-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PL
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	M
Snow (Pf)	20.0	Lumber DOI	1 15	BC	0.06	Vert(CT)	n/a	-	n/a	999	

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MSH	0.15 0.06 0.04	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 15	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 97 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 wc 6-0-0 oc purl Rigid ceiling bracing. (size) 2= 9= 15 Max Horiz 2= Max Horiz 2=	bood shea lins. directly =11-1-0, 5=11-1-0 =-105 (LC =-27 (IC	thing directly applied applied or 10-0-0 oc 6=11-1-0, 8=11-1-0, 10=11-1-0, 11=11-1 C 12), 11=-105 (LC 1 10) 6= 17 (LC 11)	2 d or 3 4 -0,	 All loads are except if not CASE(S) see provided to c unless other Unbalanced this design. Wind: ASCE Vasd=103m; II; Exp B; En and C-C Ext to 9-2-9, Ext and right exp C for membe 	 Ill loads are considered equally applied to all plies, ixcept if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been rovided to distribute only loads noted as (F) or (B), inless otherwise indicated. Inless otherwise indicated. Jnbalanced roof live loads have been considered for his design. Yind: ASCE 7-16; Vult=130mph (3-second gust) / sad=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. I; Exp B; Enclosed; MWFRS (envelope) exterior zone ind C-C Exterior(2E) 0-3-1 to 3-3-1, Exterior(2R) 3-3-1 o 9-2-9, Exterior(2E) 9-2-9 to 12-2-9 zone; cantilever left and right exposed; c-C for members and forces & MWFRS for reactions 13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls UPLIFT at jt(s) 2, 6, 10, and 8. This connection uplift only and does not consider lateral forces. 14) This truss is designed in accordance with the 20 International Residential Code sections R502.1 R802.10.2 and referenced standard ANSI/TPI 1 15) See Standard Industry Piggyback Truss Conne Detail for Connection to base truss as applicabl consult qualified building designer. LOAD CASE(S) Standard 									
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) 2-ply truss Top chord follows: 2) Bottom ch follows: 2)	$\begin{array}{l} \text{Max Horiz} & 2=-105 \ (\text{LC 12}), \ 11=-105 \ (\text{LC 12}) \\ \text{Max Uplift} & 2=-37 \ (\text{LC 10}), \ 6=-17 \ (\text{LC 11}), \\ & 8=-132 \ (\text{LC 15}), \ 10=-133 \ (\text{LC 14}), \\ & 11=-37 \ (\text{LC 10}), \ 15=-17 \ (\text{LC 11}) \\ \text{Max Grav} & 2=83 \ (\text{LC 22}), \ 10=-433 \\ & (\text{LC 22}), \ 9=282 \ (\text{LC 22}), \ 10=-433 \\ & (\text{LC 22}), \ 9=282 \ (\text{LC 22}), \ 10=-433 \\ & (\text{LC 21}), \ 11=83 \ (\text{LC 26}), \ 15=67 \ (\text{LC 25}) \\ \text{ORCES} & (\text{Ib}) - \text{Maximum Compression/Maximum Tension} \\ \text{DP CHORD} & 1-2=0/16, \ 2-3=-106/92, \ 3-4=-189/97, \\ & 4-5=-189/97, \ 5-6=-83/58, \ 6-7=0/16 \\ \text{DT CHORD} & 2-10=-29/71, \ 9-10=-28/71, \ 8-9=-28/71, \\ & 6-8=-28/71 \\ \text{EBS} & 4-9=-193/19, \ 3-10=-406/210, \ 5-8=-406/210 \\ \text{DTES} \\ & 2-\text{ply truss to be connected together as follows: } \\ & \text{Top chords connected with 10d } (0.131^*x3^*) \ \text{nails as follows: } 2x4 - 1 \ row at 0-9-0 \ oc. \\ \end{array}$				 Snown; Lumi Truss design only. For stu see Standard or consult (2000) TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct=1 Unbalanced design. This truss hat load of 12.0 overhangs n Gable requir Gable studs This truss hat chord live loa This truss hat chord and ar 	ber DOL=1.60 plat ned for wind loads uds exposed to wind d Industry Gable E tailified building dei r7-16; Pr=20.0 psf (15); Pf=20.0 psf (15	in the p in the p id (norm nd Deta signer as i (roof LL Lum DC B; Fully peen cor or greate at roof ld other lin oom chor c. c. or a 10.0 with any for a liv s where II fit betw	JUL=1.60 lane of the tru al to the face) ils as applicat s per ANSI/TF JUL=1.15 Plate Exp.; Ce=0.9 nsidered for the er of min roof bad of 20.0 ps re loads. d bearing. D psf bottom other live load e load of 20.0 a rectangle veen the bottom	uss), ble, Pl 1. 1.15); his live sf on ds.)psf pm		Contraction of the second s		SEA 0363	L 22 EEER. R. M.	

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

May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	PB2	Piggyback	7	1	Job Reference (optional)	165567138

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:55 Page: 1 ID:9tvbUfm9bkrgXna7Y?YDo6y91zG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.2

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

3-5-2

Loading TCLL (roof)		(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15		CSI TC	0.42	DEFL Vert(LL)	in n/a	(loc) -	l/defl n/a	L/d 999	PLATES MT20	GRIP 244/190	
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.11	Vert(TL)	n/a	-	n/a	999			
TCDL		10.0	Rep Stress Incr	YES		WB	0.03	Horiz(TL)	0.00	4	n/a	n/a			
BCLL		0.0*	Code	IRC2018	/TPI2014	Matrix-MP									
BCDL		10.0											Weight: 32 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No 2x4 SP No 2x4 SP No Structural 6-0-0 oc p Rigid ceili bracing. (size) Max Horiz Max Uplift Max Grav	0.2 0.2 0.2 0.3 wood sheat ourlins. ng directly 1=9-1-11, 1=-76 (LC 4=-182 (LC 7=-200 (L1 1=159 (LC 4=732 (LC 10=732 (L2 10=732 (L2 10=732 (L2 10=732 (L2) 10=732 (L2) 10	athing directly applied applied or 10-0-0 oc 2=9-1-11, 4=9-1-11, 6=9-1-11, 7=9-1-11, 10) C 21), 2=-200 (LC 14 C 15), 5=-373 (LC 22) C 14), 10=-182 (LC 15) : 21), 2=743 (LC 21) : 22), 5=126 (LC 15) : 21), 7=743 (LC 21) C 22) pression/Maximum	2) d or 3) (1), 4) (2), (5) (5) (7) (6) (7) (8)	Wind: ASCE Vasd=103mp II; Exp B; En and C-C Exte to 5-10-9, Ex left and right exposed;C-C reactions she DOL=1.60 Truss design only. For stu see Standarc or consult qu TCLL: ASCE Plate DOL=1. DOL=1.15; I DOL=1.15; I DOL=1.0; Ct Unbalanced design. Gable requirt Gable studs: This truss ha	7-16; Vult=130mp bh; TCDL=6.0psf; E closed; MWFRS (c erior(2E) 0-3-1 to 3 terior(2E) 5-10-9 to exposed ; end ver for members and wm; Lumber DOL= ned for wind loads ds exposed to wind l ndustry Gable E alified building des 7-16; Pr=20.0 psf (15); Pf=20.0 psf (s=1.0; Rough Cat 1:10 snow loads have b es continuous botto spaced at 4-0-0 oc s been designed fo	h (3-sec 3CDL=6 arvelope -3-1, Ex 5 8-10-9 tical left forces 8 =1.60 pla in the pl d (norm nd Deta signer as (roof LL Lum DC B; Fully been cor com chor 5.	cond gust) .0psf; h=25ft;) exterior zon terior(2R) 3-3 zone; cantile and right & MWFRS for ate grip ane of the tru al to the face) is as applicat s per ANSI/TP .: Lum DOL=1 L=1.15 Plate Exp.; Ce=0.9 usidered for th d bearing. D psf bottom	Cat. le 3-1 ver ss ble, 211. 1.15 ;	13) See Det con LOAD (e Standa ail for Co sult qual CASE(S)	rd Indu onnecti lified b) Star	ustry Piggyback T ion to base truss uilding designer. ndard	Truss Connectio	n ır
TOP CHORD	Tension 1-2=-135/	259, 2-3=- ⁻	184/175, 3-4=-184/17	74, 9)	chord live loa * This truss h	d nonconcurrent v as been designed	vith any for a liv	other live load e load of 20.0	ds. Ipsf				"TH CA	Rollin	
	4-5=-112/	257		-,	on the botton	n chord in all areas	where	a rectangle				1	1 year	25/1-	
BOT CHORD	2-6=-132/	82, 4-6=-13	32/82		3-06-00 tall b	y 2-00-00 wide wil	l fit betv	een the botto	m			SI	ALSO	YY.	2
WEBS	3-6=-121/	15			chord and an	y other members.					- V		in the	C.M.	1
NOTES 1) Unbalance this design	ed roof live k	oads have	been considered for	10) 11) 12)	Provide meck bearing plate 1 and 373 lb One H2.5A S recommende UPLIFT at jt(and does not This truss is International R802.10.2 ar	nanical connection capable of withsta uplift at joint 5. Simpson Strong-Tie d to connect truss s) 2 and 4. This co consider lateral for designed in accord Residential Code and d referenced stan	(by oth anding 3 connection onnection orces. dance w sections dard AN	ers) of truss to 76 lb uplift at ng walls due i n is for uplift o ith the 2018 R502.11.1 a ISI/TPI 1.	o joint to only nd		THE DESTRUCTION OF THE DESTRUCTUON OF THE DESTRUCTU		SEA 0363 Sic A. G	ER. K	www.unun





May 14,2024

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

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	PB2GE	Piggyback	1	1	Job Reference (optional)	165567139

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:55 Page: 1 ID:Rmslk9DbSapxNulK2kUs_ty916S-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.1

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014 3) Truss design	CSI TC BC WB Matrix-MP	0.08 0.03 0.05 in the p	DEFL Vert(LL) Vert(CT) Horz(CT) ane of the tru	in n/a n/a 0.00	(loc) - - 6	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 36 lb	GRIP 244/190 FT = 20%
TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP N 2x4 SP N 2x4 SP N Structural 6-0-0 oc p Rigid ceili bracing.	o.2 o.2 o.3 I wood shea ourlins. ing directly	athing directly applie applied or 10-0-0 oc	d or	only. For stu see Standard or consult qu 1) TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= 5) Unbalanced design.	ds exposed to win I Industry Gable Er alified building des 7-16; Pr=20.0 psf (15); Pf=20.0 psf (1 s=1.0; Rough Cat 1.10 snow loads have b	d (norm nd Deta signer as (roof LL Lum DC B; Fully seen cor	al to the face ils as applical s per ANSI/TF .: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 asidered for th), ble, ⊇I 1. 1.15 9; Э;					
REACTIONS	(size) Max Horiz Max Uplift Max Grav	2=-7-9-0, 6 10=7-9-0, 2=-76 (LC 2=-6 (LC 10=-84 (L 2=150 (LC 8=279 (L 10=279 (L 15=150 (L	1-9-0, 8=7-9-0, 9= 11=7-9-0, 15=7-9-0 11=7-9-0, 15=7-9-0 15), 8=-83 (LC 12) 15), 8=-83 (LC 15), C 14), 11=-6 (LC 15) 21), 6=150 (LC 22) 22), 9=112 (LC 21) C 21), 11=150 (LC 2 C 22), 11=150 (LC 2 C 22)	7-9-0, ()), 21),	 This truss ha load of 12.0 µ overhangs n. Gable requir Gable studs This truss ha chord live loa * This truss f on the bottor 	This truss has been designed for greater of min roof live bad of 12.0 psf or 1.00 times flat roof load of 20.0 psf on verhangs non-concurrent with other live loads. Sable requires continuous bottom chord bearing. Sable studs spaced at 2-0-0 oc. This truss has been designed for a 10.0 psf bottom shord 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								
FORCES	(lb) - Max Tension 1-2=0/26,	imum Com 2-3=-61/52	pression/Maximum 2, 3-4=-97/85,		 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. 11) One H2.5A Simpson Strong-Tie connectors recommended to concert true to be pring wells due to a semigration of the semigration of the									
BOT CHORD	4-5=-97/8 2-10=-23/ 6-8=-23/7	5, 5-6=-44/ 71, 9-10=-2	/38, 6-7=0/26 23/71, 8-9=-23/71,		UPLIFT at jt(s) 2, 10, and 8. This connection is for uplift only and does not consider lateral forces. 12) This truss is designed in accordance with the 2018									ROLIN
 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) 0-3-1 to 3-3-1, Exterior(2R) 3-3-1 to 5-10-9, Exterior(2E) 5-10-9 to 8-10-9 zone; cantilever left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 					International R802.10.2 an I3) See Standar Detail for Co consult quali LOAD CASE(S)	Residential Code s ad referenced stan d Industry Piggyba nnection to base tr fied building desigr Standard	sections dard AN ck Trus uss as a ner.	R502.11.1 a ISI/TPI 1. s Connection applicable, or	nd		A. THURS		SEA 0363	L 22 LEFR.R. KINN

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

818 Soundside Road Edenton, NC 27932

May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	PB2GR	Piggyback	2	2	Job Reference (optional)	l65567140

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:55 ID:QK7wdrNdUZYeXNZwa6E_Hcy918r-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale =	1:30.2
---------	--------

|--|

	(, .). [=,],[]												
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	3-0-0 1.15 1.15 NO IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	0.28 0.26 0.02	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - 2	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 65 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) 2-ply trus Top chorn follows: 2 Bottom cl follows: 2 2) All loads	 2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2-0-0 oc purlins (6-0 (Switched from sheet Rigid ceiling directly bracing. (size) 2=7-9-0,4 11=7-9-0 Max Horiz 2=114 (LC Max Uplift 2=-61 (LC 7=-61 (LC) Max Grav 2=477 (LC (a=385 (LC 11=477 (L (lb) - Maximum Com Tension 1-2=0/40, 2-3=-314/ 4-5=0/40 2-6=-58/158, 4-6=-3 3-6=-148/3 s to be connected togel ds connected with 10d x4 - 1 row at 0-9-0 oc. hords connected qually 	L -0 max.) bted: Spacing > 2-8-0 applied or 10-0-0 oc 4=7-9-0, 6=7-9-0, 7=7 C 13), 7=114 (LC 13) C 14), 4=-76 (LC 15), C 14), 4=-77 (LC 21), C 21), 4=477 (LC 21), C 22) pression/Maximum 156, 3-4=-314/156, 3/158 ther as follows: (0.131"x3") nails as Od (0.131"x3") nails as Od (0.131"x3") nails as Od (0.131"x3") nails as	4) ,-9-0, 5) 6) , 7) 8) 9) 10 11 12 12 13	Wind: ASCE Vasd=103mp II; Exp B; End and C-C Exte to 5-10-9, Ex left and right exposed;C-C reactions sho DOL=1.60 Truss desigr only. For stu see Standarc or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced : design. This truss ha load of 12.0 p overhangs no Gable require Gable studs :) This truss ha chord live loa chord live loa 3-06-00 tall b chord and an) One H2.5A S	7-16; Vult=130mp 7-16; Vult=130mp b; TCDL=6.0psf; closed; MWFRS (erior(2E) 0-3-1 to 3 terior(2E) 5-10-9 t exposed; end veri- for members and bown; Lumber DOL med for wind loads ds exposed to wird lifted building de 7-16; Pr=20.0 psf s=1.0; Rough Cat s15); Pf=20.0 psf s=1.0; Rough Cat s1.10 snow loads have l bs been designed f bs for 1.00 times f pon-concurrent with spaced at 4-0-00 s been designed f donoconcurrent vas been designed f as	bh (3-sec BCDL=6 envelope 3-3-1, E-5 to 8-10-9 rical left i forces 8 =1.60 pla in the pla d (norm ind Deta signer as f (roof LL (Lum DC B; Fully been cor for greate lat roof lo o ther liv for a 10.0 with any f for a liv s where e conners	sond gust) .0psf; h=25ft; .0psf; b=25ft; .0psf; b=25ft; .0	; Cat. ne 3-1 ever uss), ble, -1.15 e); his live sf on ds. Dpsf om	15) See Det: con 16) Gra or tf bott LOAD (Standar ail for Cc sult qual phical pu e orient case(s)	rd Indu nnecti ified bu urlin re ation c d. Star	istry Piggyback T ion to base truss uilding designer. presentation doe of the purlin along ndard	Truss Conne as applicables not depict the top and Reference	ction e, or the size /or
CASE(S) provided unless ot 3) Unbalanc this desig	section. Ply to ply conr to distribute only loads herwise indicated. eed roof live loads have in.	hections have been noted as (F) or (B), been considered for	14	UPLIFT at jt(and does not) This truss is International R802.10.2 ar	s) 2 and 4. This consider lateral for designed in accorr Residential Code and referenced star	onnection orces. dance w sections ndard AN	n is for uplift o ith the 2018 R502.11.1 a ISI/TPI 1.	only Ind				SIC A. G	EER.	in the second

May 14,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTPI1 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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	PB3	Piggyback	3	1	Job Reference (optional)	165567141

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:56 Page: 1 ID:jzudvf5?HySB7qACgSkvP7y94VX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



= 2

5-5-11

Casla	4.00 0
Scale	= 1.30 9

and C-C Exterior(2E) zone; cantilever left and right

exposed ; end vertical left and right exposed;C-C for

members and forces & MWFRS for reactions shown;

Truss designed for wind loads in the plane of the truss

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

Lumber DOL=1.60 plate grip DOL=1.60

2)

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MP	0.34 0.12 0.09	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: 27 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 1=6-2-0, 2 7=6-2-0 Max Horiz 1=151 (LC Max Uplift 1=-38 (LC 5=-36 (LC 7=-139 (L Max Grav 1=124 (LC 5=192 (LC	athing directly applied cept end verticals. applied or 10-0-0 oc 2=6-2-0, 5=6-2-0, 6=6 C 11) C 10), 2=-139 (LC 21), C 11), 6=-141 (LC 14), C 21), 6=507 (LC 21), C 21), 6=507 (LC 21), 14)	 3) TCLL: ASC: Plate DOL= DOL=1.15); Cs=1.00; Cl 4) Unbalanced design. 5) Gable requi 6) Gable studs 7) This truss h chord live lo -2-0, 8) * This truss on the botto 3-06-00 tall chord and a 9) Bearing at ji value using designer sh 10) Provide men bearing plat 	E 7-16; Pr=20.0 psf 1.15); Pf=20.0 psf (Is=1.0; Rough Cat =1.10 snow loads have b res continuous botto spaced at 4-0-0 oc as been designed for ad nonconcurrent v has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-10 wide will has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas by 2-00-00 wide will has been designed m chord in all areas has been designed m chord in all areas	(roof LL Lum DC B; Fully been cor om chor c. or a 10.0 with any for a liv s where Il fit betw ders par o grain f of bearin (by oth anding 3	: Lum DOL= L=1.15 Plate Exp.; Ce=0.9 Isidered for th d bearing.) psf bottom other live load e load of 20.0 a rectangle veen the botto allel to grain ormula. Build ng surface. ers) of truss t 8 lb uplift at jo	l.15 ; ds. gsf m ling obint					
FORCES TOP CHORD	(lb) - Maximum Com Tension 1-2=-190/233, 2-3=- 4-5=-160/54	pression/Maximum 196/226, 3-4=-143/11	11) One H2.5A recommend 7, UPLIFT at ji	Simpson Strong-Tie ed to connect truss (s) 5, 2, and 6. This	e conne to bear s connec	ctors ng walls due tion is for upl	to ift					un.
BOT CHORD WEBS NOTES 1) Wind: ASC Vasd=103 II: Exp B: B	2-6=-52/76, 5-6=-52 3-6=-446/316 CE 7-16; Vult=130mph imph; TCDL=6.0psf; B Enclosed: MWERS (er	/76 (3-second gust) CDL=6.0psf; h=25ft; C velope) exterior zone	only and do 12) This truss is Internationa R802.10.2 a 13) See Standa Cat. Detail for Co consult qua	es not consider late designed in accord I Residential Code Ind referenced stan rd Industry Piggyba onnection to base tr ified building design	eral force dance w sections dard AN ick Trus russ as a ner.	th the 2018 R502.11.1 a ISI/TPI 1. Connection Applicable, or	nd		4	Z	ORTH CA	ROUT

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 **ANSUTPI1 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	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	V1	Valley	1	1	Job Reference (optional)	165567142

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:56 Page: 1 ID:F?srD3E8Afz2EulzeZOMFizF_Uo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



							10-5-6						
Scale = 1:32.5	;		I									1	
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/T	⁻ PI2014	CSI TC BC WB Matrix-MSH	0.51 0.47 0.17	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.01	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 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 she 10-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=10-5-6 Max Horiz 1=-78 (LC Max Uplift 1=-62 (LC 4=-92 (LC Max Grav 1=55 (LC (LC 20)	eathing directly applie / applied or 6-0-0 oc , 3=10-5-6, 4=10-5-6 C 10) C 21), 3=-62 (LC 20), C 14) 2 20), 3=95 (LC 21), 4	4) T F C 5) L (5) L (7) (8) T 9) * 5 8) T 6 9) * 5 8 7 9) * 6 8 7 9) * 6 8 7 9) * 6 8 7 7 9 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 8	FCLL: ASCE Plate DOL=' DOL=1.15); Cs=1.00; Ct: Jnbalanced design. Sable requir Sable studs Fhis truss ha chord live lo: ' This truss ha chord live lo: 3-06-00 tall h chord and an Provide mec	57-16; Pr=20.0 ps 1.15); Pf=20.0 ps 1s=1.0; Rough Car =1.10 snow loads have es continuous bot 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 hy other members canable of withos	if (roof LI (Lum DC t B; Fully been cor tom chor c. for a 10.1 with any d for a liv as where ill fit betv n (by oth	L: Lum DOL=1 DL=1.15 Plate Exp.; Ce=0.9 nsidered for th d bearing. D psf bottom other live load re load of 20.0 a rectangle veen the botto ers) of truss to	.15 ; is ds. psf om					
FORCES TOP CHORD BOT CHORD WEBS	(Ib) - Maximum Con Tension 1-2=-109/441, 2-3=- 1-4=-319/158, 3-4=- 2-4=-700/235	npression/Maximum -109/441 -319/158	1 11)	1, 62 lb uplif This truss is nternational R802.10.2 a D CASE(S)	t at joint 3 and 92 designed in accor Residential Code nd referenced star Standard	Ib uplift a rdance w sections ndard AN	it joint 4. ith the 2018 \$ R502.11.1 at ISI/TPI 1.	nd					
 Unbalanc this desig Wind: AS Vasd=100 II; Exp B; and C-C I to 7-5-12, cantilever right expo for reactio DOL=1.6 Truss de only. For see Stand or consult 	ed roof live loads have in. CE 7-16; Vult=130mpf 3mph; TCDL=6.0psf; B Enclosed; MWFRS (ei Exterior(2E) 0-0-6 to 3- , Exterior(2E) 7-5-12 to r left and right exposed sed;C-C for members ons shown; Lumber DC 0 signed for wind loads i studs exposed to wind dard Industry Gable Er t qualified building desi	e been considered for h (3-second gust) CDL=6.0psf; h=25ft; nvelope) exterior zone; 0-6, Exterior(2R) 3-0 10-5-12 zone; 1; end vertical left and and forces & MWFR DL=1.60 plate grip n the plane of the trus d (normal to the face); id Details as applicab igner as per ANSI/TP	Cat. e -6 I S S ss , le, I 1.							CA. Manana		SE/ 0363	ARO SIGNAR AL S22

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)



G minin May 14,2024

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	V2	Valley	1	1	Job Reference (optional)	165567143

1-8-5

2-0-1

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:56 Page: 1 ID:jCQDRPFmxy5us2K9CGvbovzF_Un-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

818 Soundside Road Edenton, NC 27932



5-11-6

Scale - 1.25

00010 = 1.20														
Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		тс	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCLL		0.0*	Code	IRC2018	3/TPI2014	Matrix-MP								
BCDL		10.0											Weight: 20 lb	FT = 20%
LUMBER				5)	Unbalanced	snow loads have	been cor	nsidered for t	his					
TOP CHORD	2x4 SP N	o.2		,	design.									
BOT CHORD	2x4 SP N	0.2		6)	Gable requir	es continuous bot	ttom chor	d bearing.						
OTHERS	2x4 SP N	0.3		7)	Gable studs	spaced at 4-0-0 o	DC.							
BRACING	RACING 8) This truss has been designed for a 10.0 psf bottom													
TOP CHORD	Structural	l wood shea	athing directly applie	ed or 9)	chord live loa * This truss h	ad nonconcurrent has been designe	with any d for a liv	other live loa e load of 20.	ads. Opsf					
BOT CHORD	on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom													
REACTIONS	bracing.	1 5 11 0	2		chord and ar	y other members	3.							
REACTIONS	(SIZE) Max Horiz	1=0-11-0, 1=42(10)	3=0-11-0, 4=0-11-0 • 12)	10) Provide mec	hanical connectio	on (by oth	ers) of truss	to					
	Max Linlift	1=-43 (LC	14) 311 (I C 15) 4	436	bearing plate	capable of withs	tanding 3	lb uplift at jo	pint 1,					
	Max Opint	(C, 14)	14), 0= 11 (20 10), -		11 lb uplift at	joint 3 and 36 lb	uplift at jo	pint 4.						
	Max Grav	1=97 (LC	20), 3=97 (LC 21), 4	11 ¹¹) This truss is	designed in accor	rdance w	ith the 2018						
	(LC 20) (LC 21), 4-305 International Residential Code sections R502.11.1 and International Residential Code sections R502.11.1 and													
FORCES	RECES (Ib) - Maximum Compression/Maximum - to the output of the standard ANSI/TPI 1.													
	Tension LOAD CASE(S) Standard													
TOP CHORD	1-2=-95/1	58, 2-3=-9	5/158											
BOT CHORD	1-4=-135/	/102, 3-4=-	135/102											
WEBS	2-4=-290/	/128												
NOTES														
1) Unbalance	ed roof live l	oads have	been considered for	r										117.5
this desig	n.													1111
2) Wind: AS	CE 7-16; Vu	lt=130mph	(3-second gust)										IN TH UA	ROUL
Vasd=103	3mph; TCDL	=6.0psf; B0	CDL=6.0psf; h=25ft;	Cat.								N	A	Charles .
II; Exp B;	Enclosed; N	IWFRS (en	velope) exterior zon	e								5.5	1000	IN. sin
and C-C E	Exterior(2E)	zone; canti	lever left and right								-			Mar 1
exposed ;	end vertical	l left and rig	pht exposed;C-C for								-		Q.	
members	and forces &	& MWFRS	for reactions shown;	;							-	:	SFA	1 : -
Lumber D	OL=1.60 pla	ate grip DO	L=1.60								=			
3) Truss des	signed for w	ind loads in	the plane of the tru	ISS							=		0363	22 <u>:</u> E
Only. For	only. For study exposed to wind (normal to the face),										4 8			
see Stand	see Statudar industry Gable Entri Detaits as applicable,													
		-20 0 pef (roof LL · Lum DOL =1	11.								20	N. SNOW	EFR. X N
Plate DOI	=1 15) Pf=	20.0 psi (l	um DOI =1 15 Plate									1	SU GIN	5. 24 N
DOL=1 15	5): ls=1.0 [.] R	ough Cat B	E Fully Exp.: Ce=0.9):								1	A CA	IL BEIN
Cs=1.00:	Ct=1.10	cagn out b	, . a., Exp., 00=0.0	,									1111.0	in in its
														. 4.4.000.4
													May	/ 14,2024
<u></u>														

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

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	V04	Valley	1	1	Job Reference (optional)	165567144

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:56 ID:eIT6SsDcymmgT?wycURRkqzGcDL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-10-5

Page: 1



Scale = 1:22.1

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

Snow (Pf) 20.0 Lumber DOL 1.15 IC 0.15 Vert(LL) 1//a - 1//a 995 Snow (Pf) 20.0 Lumber DOL 1.15 BC 0.19 Vert(TL) n/a - n/a 995 TCDL 10.0 Rep Stress Incr YES WB 0.00 Horiz(TL) 0.01 3 n/a n/a BCLL 0.0* Code IRC2018/TPI2014 Matrix-MP	MT20 244/190 Weight: 13 lb FT = 20%
 LUMBER LUMBER LUMBER Structural wood sheathing directly applied or 4-10-5 oc purins. BOT CHORD 2x4 SP No.2 Structural wood sheathing directly applied or 4-10-5 oc purins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. REACINONS (size) 1=4-10-5, 3=4-10-5 Max Horiz 1=14 (LC 14) Max Orpit 1=2-0 (LC 14), 3=-20 (LC 15) Max Grav 1=219 (LC 20), 3=219 (LC 21) FORCES (b) - Maximum Compression/Maximum Tension TOP CHORD 1:2=-434/193, 2:3=-434/193 BOT CHORD 1:3=-165/391 NOTES 1) Unbalanced roof live loads have been considered for this design. 2) Winct: ASCE 7-16; Vult=130mph (3-second gust) Vased=103mph; TCDL=6.0ps; BCDL=6.0ps; h=25ft; cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(ZE) 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 pist; BCDL=6.0ps; h=25ft; cat. II; Exp B; Enclosed; MWFRS (reactions zhown; Lumber DOL=1.15) [H=20.0 psf (tord LL: Lum DOL=1.15) Plate DOL=1.15; [H=20.0 psf (tord DOL=1.15) Plate DOL=1.15;	SEAL 036322



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

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	V06	Valley	1	1	Job Reference (optional)	165567145

2-1-12

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:56 Page: 1 ID:iNLL1ABMQ9WyEhmZU3PzfPzGcDN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



2x4 🍫

6-4-9

2x4 💊

Scale - 1.25.6

Loading (ps) Spacing 2-0-0 CSI DEFL in (loc) I/def Lude PLATES GRIP TCUL (roof) 20.0 Plate Grip DOL 1.15 TC 0.17 Ver(TL) n/a - n/a 99 MT20 244/190 Show (P) 20.0 Rep Stress Incr YES BC 0.19 Ver(TL) n/a - n/a n/a Plates GRIP TCDL 0.00 Rep Stress Incr YES WB 0.06 Horiz(TL) 0.00 4 n/a n/a n/a Plates GRIP BCDL 10.0 Cde Image Stress Incr YES WB 0.06 Horiz(TL) 0.00 4 n/a n/a														
LUMBER UNBLER 2/4 SP No.2 5 Unbalanced anow loads have been considered for this design. DT CHORD 2/4 SP No.2 6 <	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	0.17 0.19 0.06	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 22 lb	GRIP 244/190 FT = 20%	
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 May 14,2024	LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Unbalance this desigr 2) Wind: ASC Vasd=103 II; Exp B; f and C-C E exposed ; members a Lumber DC 3) Truss des only. For see Stand or consult 4) TCLL: ASC Plate DOL DOL=1.15 CS=1.00; C	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-4-9 oc purlins. Rigid ceiling directly bracing. (size) 1=6-4-9,3 Max Horiz 1=46 (LC Max Uplift 1=-2 (LC (LC 14) Max Grav 1=100 (LC 4=424 (LC (lb) - Maximum Com Tension 1-2=-97/182, 2-3=-9 1-4=-155/112, 3-4=- 2-4=-326/142 ed roof live loads have DE 7-16; Vult=130mph imph; TCDL=6.0psf; Bi Enclosed; MWFRS (er Exterior(2E) zone; cant end vertical left and rig and forces & MWFRS OL=1.60 plate grip DC signed for wind loads ir studs exposed to wind ard Industry Gable En qualified building desi CE 7-16; Pr=20.0 psf (L =1.15); Is=1.0; Rough Cat E Cl=1.10	athing directly applied applied or 6-0-0 oc 3=6-4-9, 4=6-4-9 13) 14), 3=-10 (LC 15), 4: C 20), 3=100 (LC 21), C 20) apression/Maximum 7/182 155/112 been considered for (3-second gust) CDL=6.0psf; h=25ft; C hvelope) exterior zone ilever left and right ght exposed; C- C for for reactions shown; DL=1.60 n the plane of the trus I (normal to the face), d Details as applicabl gner as per ANSI/TPI roof LL: Lum DOL=1. um DOL=1.15 Plate 3; Fully Exp.; Ce=0.9;	5) Unbalance design. 6) Gable req 7) Gable stuu 8) This truss on the bot 3-06-00 ta chord and 10) Provide m bearing pl 10 lb uplift 11) This truss Internation R802.10.2 LOAD CASE(ed snow loads have uires continuous bol Is spaced at 4-0-0 c has been designed load nonconcurrent s has been designe tom chord in all area Il by 2-00-00 wide w any other members echanical connectio ate capable of withs at joint 3 and 41 lb is designed in acco nal Residential Code and referenced sta S) Standard	been cor ttom chor oc. for a 10.1 with any d for a liv as where vill fit betv s. nn (by oth ttanding 2 uplift at jur rdance w a sections inndard AN	nsidered for the d bearing. D psf bottom other live load e load of 20.0 a rectangle veen the botto ers) of truss to 2 lb uplift at joi pint 4. ith the 2018 s R502.11.1 a USI/TPI 1.	his ds. Dpsf om o int 1, nd		A CONTRACT OF		SEA 0363	EER LLBER LLBER LLBER LLBER LLBER LLBER LLBER LLBER LLBER LLBER LLBER LLBER LLBER LLBER LLBER LL LL LL LL LL LL LL LL LL LL LL LL LL	in the second

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

LUMBER		
TOP CHORD	2x4 SP N	0.2
BOT CHORD	2x4 SP N	0.2
OTHERS	2x4 SP N	0.3
BRACING		
TOP CHORD	Structural 6-4-9 oc p	l wood sheathing directly applied purlins.
BOT CHORD	Rigid ceil bracing.	ing directly applied or 6-0-0 oc
REACTIONS	(size)	1=6-4-9, 3=6-4-9, 4=6-4-9
	Max Horiz	1=46 (LC 13)
	Max Uplift	1=-2 (LC 14), 3=-10 (LC 15), 4= (LC 14)
	Max Grav	1=100 (LC 20), 3=100 (LC 21), 4=424 (LC 20)
FORCES	(lb) - Max Tension	imum Compression/Maximum
	1 2- 07/1	92 2 2 07/192

Т В V

N

- 1
- 2
- 3
- 4

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	V08	Valley	1	1	Job Reference (optional)	165567146

1-8-6

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:56 ID:logDP99T7E8NNE1_pwsF1nzGcDQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



8-0-12

2x4 🚅

Scale - 1.23.7

00010 - 1.20.7														
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-MP	0.26 0.28 0.07	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 24 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS NOTES	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 8-0-12 oc purlins. Rigid ceiling directly bracing. (size) 1=8-0-12, Max Horiz 1=24 (LC Max Uplift 1=-14 (LC 4=-38 (LC Max Grav 1=123 (LC (lb) - Maximum Com Tension 1-2=-155/284, 2-3=- 1-4=-257/152, 3-4=- 2-4=-377/202	athing directly applie applied or 6-0-0 oc (3=8-0-12, 4=8-0-12 (14) (14), 3=-19 (LC 15) (14), 3=-19 (LC 21) (20), 3=123 (LC 21) (20) apression/Maximum (155/284) (257/152)	4; 5; ed or 6; 7; 8; 9;), 1(1, 1, 1,	 TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. Gable requir Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar Provide mec bearing plate 1, 19 lb upliff This truss is International R802.10.2 a DAD CASE(S) 	57-16; Pr=20.0 ps 1.15); Pf=20.0 ps 1.15); Pf=20.0 ps 1.10; Rough Cat =1.10 snow loads have 1 es continuous bott spaced at 4-0-0 o as been designed an chord in all area by 2-00-00 wide w hy other members thanical connection e capable of withst t at joint 3 and 38 designed in accor Residential Code nd referenced star Standard	f (roof Ll (Lum DC B; Fully been con com choir cor a 10. with any f for a liv s where all fit betw h (by oth anding 1 b uplift a dance w sections ndard AN	: Lum DOL=1 JL=1.15 Plate Exp.; Ce=0.9 asidered for th d bearing. D psf bottom other live load e load of 20.0 a rectangle veen the bottc ers) of truss to 4 lb uplift at jo it joint 4. is post 2018 s R502.11.1 a ISI/TPI 1.	I.15); ds.)psf om oint nd						
 Unbalance this design Wind: ASI 	ed roof live loads have n. CE 7-16: Vult=130mph	been considered for (3-second gust)	r									THCA	RO	

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-10 to 3-0-10, Exterior(2R) 3-0-10 to 5-1-5, Exterior(2E) 5-1-5 to 8-1-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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



818 Soundside Road Edenton, NC 27932

G

SEAL

036322

WWWWWWWW

Contraction and Contraction of the Contraction of t

Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	V10	Valley	1	1	Job Reference (optional)	165567147

Scale = 1:33.1

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:56 ID:LPYS_T7Dbcug7wtciWpnyMzGcDS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



10-10-9

TCLL (roof) Snow (Pf) TCDL BCLL	(psi) 20.0 20.0 10.0 0.0*	Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	TC BC WB Matrix-MSH	0.56 0.50 0.19	Vert(LL) Vert(TL) Horiz(TL)	n/a n/a 0.01	(IOC) - - 4	n/a n/a n/a n/a	999 999 999 n/a	MT20	244/190
BCDL	10.0			o, 11 1201 1								Weight: 39 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 10-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=10-10-5 Max Horiz 1=-82 (LC Max Uplift 1=-69 (LC 4=-100 (L Max Grav 1=83 (LC (LC 21) (lb) - Maximum Com Tension 1-2=-116/469, 2-3=- 1-4=-344/165, 3-4=- 2-4=-745/246	athing directly applied applied or 6-0-0 oc 9, 3=10-10-9, 4=10-10 21), 3=-69 (LC 20), C 14) 20), 3=83 (LC 21), 4= apression/Maximum 116/469 344/165	4) 5) or 6) 7) 8) 9-9 9) 8889 10 11	TCLL: ASCE Plate DOL=' DOL=1.15); Cs=1.00; Ct: Unbalanced design. Gable requir Gable studs This truss ha chord live loo. * This truss ha chord live loo. * This truss ha chord live loo. * This truss loo on the botton 3-06-00 tall h chord and an experience of the state 1, 69 lb uplif) This truss is International R802.10.2 a DAD CASE(S)	57-16; Pr=20.0 ps 1.15); Pf=20.0 ps 1.15); Pf=20.0 ps 1.10; Rough Cat =1.10; Rough Cat =1.10; Rough Cat =1.10; Rough Cat snow loads have I es continuous bott spaced at 4-0-0 or as been designed f ad nonconcurrent to ad nonconcur	f (roof LL (Lum DC B; Fully been cor com chor c. for a 10.1 with any f for a liv s where a liv f or a liv s where lil fit betw h (by oth anding 6 l b uplift dance w sections ndard AN	:: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 rsidered for the d bearing. 0 psf bottom other live loa re load of 20.0 a rectangle veen the bottot ers) of truss t 59 lb uplift at j at joint 4. tit the 2018 5 R502.11.1 a VS/TPI 1.	1.15 b; ds. Dpsf om oint nd					
 Unbalance this design 	ed roof live loads have	been considered for										minin	uun.

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) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 7-10-15, Exterior(2E) 7-10-15 to 10-10-15 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. Contraction and Contraction WWWWWWWW SEAL 036322 G mm May 14,2024

3x5 💊

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



Job	Truss	Truss Type	Qty	Ply	133 Serenity-Roof-B330 B COP BNS GLH	
24040186-01	V11	Valley	1	1	Job Reference (optional)	165567148

Run; 9.04 S 8.73 Apr 25 2024 Print; 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:56 ID:P1QiZn6z3?eyuckDa5nJtxzGcDU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



LUMBER							
TOP CHORD	2x4 SP No.2						
BOT CHORD	2x4 SP No.2						
OTHERS	2x4 SP No.3						
BRACING							
TOP CHORD	Structura	I wood sheathing directly applied or purlins.					
BOT CHORD	Rigid ceil bracing.	ing directly applied or 6-0-0 oc					
REACTIONS	(size)	1=11-3-2, 3=11-3-2, 4=11-3-2					
	Max Horiz	1=35 (LC 18)					
	Max Uplift	1=-30 (LC 21), 3=-30 (LC 20), 4=-61 (LC 14)					
	Max Grav	1=140 (LC 20), 3=140 (LC 21), 4=816 (LC 20)					
FORCES	(lb) - Max Tension	imum Compression/Maximum					
TOP CHORD	1-2=-181/492, 2-3=-181/492						
BOT CHORD	1-4=-403/206, 3-4=-403/206						
WEBS	2-4=-634	/316					
NOTES							

10.0

NOTES

TCDL

BCLL

BCDL

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-10 to 3-0-10, Exterior(2R) 3-0-10 to 8-3-12, Exterior(2E) 8-3-12 to 11-3-12 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.

- 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 desian.
- Gable requires continuous bottom chord bearing. 6)
- Gable studs spaced at 4-0-0 oc. 7)
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. * This truss has been designed for a live load of 20.0psf 9)
- on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1, 30 lb uplift at joint 3 and 61 lb uplift at joint 4.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



Weight: 35 lb

FT = 20%

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 that the operating of the second se and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty Ply		133 Serenity-Roof-B330 B COP BNS GLH			
24040186-01	V14	Valley	1	1	Job Reference (optional)	165567149		

Run: 9.04 S 8.73 Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 14 11:16:56 ID:at3RJk1CU9toAhG3EqgvdgzGcDa-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Max Uplift 1=-3 (LC 15), 7=-10 (LC 15), 8=-51 (LC 15), 9=-36 (LC 15), 11=-36 (LC 14), 12=-52 (LC 14) Max Grav 1=97 (LC 20), 7=97 (LC 21), 8=320 (LC 21), 9=196 (LC 21), 10=201 (LC 1), 11=196 (LC 20), 12=320 (LC 20) (lb) - Maximum Compression/Maximum

FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-2=-141/100, 2-3=-7/83, 3-4=-1/90, 4-5=-1/86, 5-6=0/83, 6-7=-141/100

BOT CHORD 1-12=-66/73, 10-11=-66/73, 9-10=-66/73, 8-9=-66/73, 7-8=-66/74 WEBS 4-10=-154/25, 3-11=-178/92, 2-12=-221/116, 5-9=-178/92, 6-8=-221/116

NOTES

 Unbalanced roof live loads have been considered for this design.

- a) Truss designed no wind hoads 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; Pf=20.0 psf (conf LL: Lum DOL=1.15); Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15); Plate DOL=1.15); Rough Cat B; Fully Exp.; Ce=0.9;
- Cs=1.00; Ct=1.10 5) Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 1, 10 lb uplift at joint 7, 36 lb uplift at joint 11, 52 lb uplift at
- joint 12, 36 lb uplift at joint 9 and 51 lb uplift at joint 8. 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and
- R802.10.2 and referenced standard ANSI/TPI 1. 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.sbcaccomponents.com)

