

RE: 24020082 138 Serenity Trenco 818 Soundside Rd Edenton, NC 27932

Site Information: Customer: Project Name: 24020082 Lot/Block: Address: City:

Model: Subdivision: State:

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

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

This package includes 29 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	161412506	A	10/16/2023	21	161412526	G	10/16/2023
2	161412507	AGE	10/16/2023	22	161412527	GSE	10/16/2023
3	161412508	В	10/16/2023	23	161412528	V1	10/16/2023
4	161412509	B1	10/16/2023	24	l61412529	V2	10/16/2023
5	l61412510	B1GE	10/16/2023	25	l61412530	V3	10/16/2023
6	161412511	B2	10/16/2023	26	161412531	V4	10/16/2023
7	161412512	B3	10/16/2023	27	161412532	V5	10/16/2023
8	161412513	BSE	10/16/2023	28	l61412533	V11	10/16/2023
9	161412514	С	10/16/2023	29	l61412534	V12	10/16/2023
10	l61412515	C1	10/16/2023				
11	161412516	CGE	10/16/2023				
12	l61412517	D	10/16/2023				
13	l61412518	DGE	10/16/2023				
14	l61412519	E	10/16/2023				
15	161412520	EGE	10/16/2023				
16	l61412521	EGR	10/16/2023				
17	l61412522	F	10/16/2023				
18	161412523	F1	10/16/2023				
19	l61412524	F1GE	10/16/2023				
20	l61412525	FGE	10/16/2023				

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

Truss Engineering Co. under my direct supervision

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

Truss Design Engineer's Name: Gilbert, Eric

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

North Carolina COA: C-0844

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



Gilbert, Eric

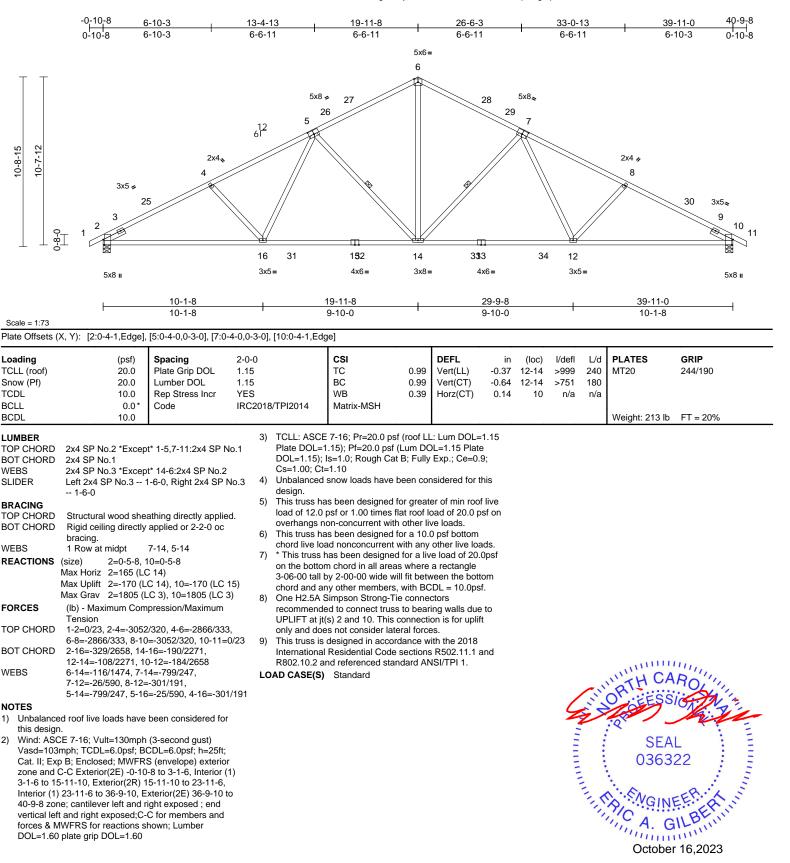
Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	A	Common	4	1	Job Reference (optional)	161412506

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:35 ID:CttcSzQgwNcSj9X9hY?FsHzF_uO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

818 Soundside Road

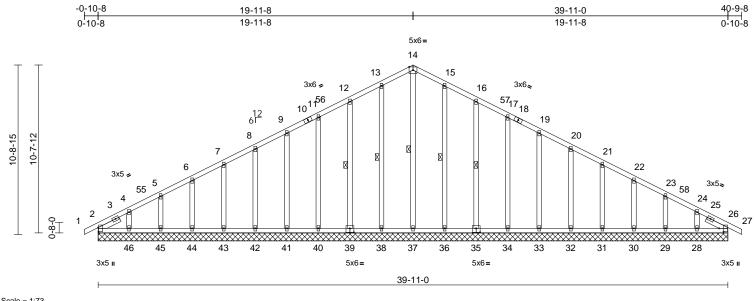
Edenton, NC 27932



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **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	138 Serenity	
24020082	AGE	Common Supported Gable	1	1	Job Reference (optional)	161412507

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:37 ID:94aeZ53wRfHxaJ4LIBSgWSzF_tZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1.75				
Plate Offsets (X_Y)	[2.0-3-1 0-0-5]	[26:0-2-8 0-3-5]	[35:0-3-0 0-3-0]	[39.0-3-0 0-3-0]

	X, Y): [2:0-3-1,0)-0-5], [26:0-2-8,0-3-5], [35:	0-3-0,0-3-0], [39:0-3-0	0,0-3-0]								
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	20 20 10	osf) 0.0 0.0 0.0 0.0* 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-M	0.08 0.05 0.15 SH	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.01	(loc) - - 26	n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 285 I	GRIP 244/190 b FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS SLIDER BRACING TOP CHORD BOT CHORD WEBS	Left 2x4 SP No 1-6-0 Structural wood 6-0-0 oc purlina	o.3 1 od shea is. irectly a	* 37-14:2x4 SP No.2 6-0, Right 2x4 SP N thing directly applied applied or 10-0-0 oc 14-37, 13-38, 12-39, 5-36, 16-35	0.3	(lb) - Maxin	2=161 (LC 26), 2 28=158 (LC 35), 30=160 (LC 35), 32=161 (LC 22), 34=180 (LC 22), 36=245 (LC 22), 38=245 (LC 21), 40=180 (LC 21), 42=161 (LC 21), 44=160 (LC 34), 51=161 (LC 26) num Compressi	29=160 (LC 31=160 (LC 33=160 (LC 35=232 (LC 37=201 (LC 39=232 (LC 41=160 (LC 43=160 (LC 43=160 (LC 45=160 (LC 47=138 (LC	22), 1), 35), 22), 27), 21), 34), 1), 21), 22),	, thi	S Ibalanceo s design.	12-39: 9-41= 6-44= 15-36: 17-34: 20-32: 22-30: 24-28: d roof li	-120/77, 5-45= =-205/66, 16-3 =-140/76, 19-3 =-121/77, 21-3 =-120/77, 23-2 =-114/135	0=-140/76, -121/77, 7-43=-120/77 -121/81, 4-46=-114/13 5=-192/83, 3=-120/77, 1=-120/77,
	28=: 30=: 32=: 34=: 38=: 40=: 44=: 51=: Max Horiz 2=-1 Max Uplift 2=-2 29=- 31=- 33=- 35=- 38=- 40=- 44=-	9-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 39-11-0, 21 (LC), -37 (LC), -37 (LC), -43 (LC), -43 (LC), -43 (LC), -43 (LC), -43 (LC), -44 (LC), -46	$\begin{array}{c} 26 = 39 - 11 - 0, \\ 0, 29 = 39 - 11 - 0, \\ 0, 31 = 39 - 11 - 0, \\ 0, 33 = 39 - 11 - 0, \\ 0, 35 = 39 - 11 - 0, \\ 0, 37 = 39 - 11 - 0, \\ 0, 39 = 39 - 11 - 0, \\ 0, 41 = 39 - 11 - 0, \\ 0, 43 = 39 - 11 - 0, \\ 0, 45 = 39 - 11 - 0, \\ 0, 47 = 39 - 11 - 0, \\ \end{array}$),),),),),),),	5-6=-129/9 8-9=-61/15 12-13=-102 14-15=-120 16-17=-84/ 19-20=-49/ 22-23=-66/ 24-26=-144/1 44-45=-44/1 44-45=-44/ 40-41=-44/ 34-36=-44/1 34-36=-44/1 32-33=-44/	2-4=-216/79, 4-5 4, 6-7=-96/107, 4, 9-11=-66/177 3/269, 13-14=-1: 0/309, 15-16=-11 221, 17-19=-66, 131, 20-21=-41/ 27, 23-24=-100, 4/59, 26-27=0/2: 67, 45-46=-44/1 167, 43-44=-44/ 167, 38-40=-44/ 167, 38-37=-44/ 167, 33-34=-44/ 167, 33-34=-44/ 167, 31-32=-44/ 167, 29-30=-44/ 167, 26-28=-44/	7-8=-74/130 ', 11-12=-84/ 20/309, 03/269, 1176, '86, 21-22=-4 '35, 3 67, 1167	/221,	Va Ca zoi 3-1 Ex 40 vei for DC	sd=103n at. II; Exp ne and C 1-6 to 15- terior(2N -9-8 zone rtical left	nph; TC B; Enc -C Cor -11-8, () 23-11 e; canti and rig WFRS plate gi	CDL=6.0psf; BC closed; MWFRS corner(3E) -0-10-6 Corner(3R) 15- -1-8 to 36-9-10, lever left and ri pht exposed;C-0 for reactions sh rip DOL=1160	AL 322

October 16,2023

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A MITek Affilian A MITek Affilian 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	AGE	Common Supported Gable	1	1	Job Reference (optional)	161412507

- 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 33, 44 lb uplift at joint 32, 43 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: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:37 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	138 Serenity	
24020082	В	Common	5	1	Job Reference (optional)	161412508

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:38 ID:6tPM5/r?FJUMxDStPvqO5SzF_Wb-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

37-1-8 6-5-8 12-7-8 18-9-8 24-11-8 36-3-0 31-1-8 6-5-8 6-2-0 6-2-0 6-2-0 6-2-0 5-1-8 0-10-8 5x6= 5 5x6 ≠ 19 20 5x6 👟 18 21 6 4 12 61 I0-4-12 4x5 -4x6 3 22 3x5 II 17 4x5 II 8 9 2 1-8-0 0-0-I 16 10 \ge 15 23 14 13 25 26 24 12 11 3x8= 3x5= 3x5= 4x6= 3x8= 4x6= 3x5= 9-2-8 18-9-8 28-4-8 36-3-0 9-2-8 9-7-0 9-7-0 7-10-8 Scale = 1:66.4 Plate Offsets (X, Y): [2:0-2-8,0-1-12], [4:0-3-0,0-3-4], [6:0-3-0,0-3-4] PLATES Loading Spacing 2-0-0 CSI DEFL in l/defl L/d GRIP (psf) (loc) TCLL (roof) 20.0 Plate Grip DOL 1.15 тс 0.80 Vert(LL) -0.26 11-13 >999 240 MT20 244/190 Snow (Pf) 20.0 Lumber DOL 1.15 BC 0.87 Vert(CT) -0.45 11-13 >952 180 TCDL 10.0 Rep Stress Incr YES WB 0.66 Horz(CT) 0.10 10 n/a n/a BCLL 0.0 Code IRC2018/TPI2014 Matrix-MSH Weight: 217 lb BCDL 10.0 FT = 20% 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) LUMBER Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;

LOWIDEN			
TOP CHORD	2x4 SP No.2		
BOT CHORD	2x4 SP No.1		
WEBS	2x4 SP No.3		
BRACING			
TOP CHORD	Structural wood she 2-2-0 oc purlins, ex	eathing directly applied or	
BOT CHORD		applied or 10-0-0 oc	
WEBS	0	4-13, 6-13, 3-16, 7-10	
REACTIONS	(size) 10=0-5-8	, 16=0-5-8	;
	Max Horiz 16=157 (LC 13)	
	Max Uplift 10=-150	(LC 15), 16=-160 (LC 14)	
	Max Grav 10=1644	(LC 3), 16=1639 (LC 3)	4
FORCES	(lb) - Maximum Con	npression/Maximum	
	Tension		ł
TOP CHORD	1-2=0/27, 2-3=-550	/149, 3-5=-2405/299,	
	5-7=-2158/299, 7-8	=-191/109, 8-9=0/27,	
	2-16=-457/167, 8-1	0=-261/140	(
BOT CHORD	15-16=-278/2144, 1		
	11-13=-51/1777, 10		7
WEBS	3-15=-177/182, 4-1		
	4-13=-681/229, 5-1	,	
		1=-4/262, 7-11=0/248,	
	3-16=-2024/134, 7-	10=-2098/144	8
NOTES			

NOTES

1) 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 2-9-0, Interior (1) 2-9-0 to 15-2-0, Exterior(2R) 15-2-0 to 22-5-0, Interior (1) 22-5-0 to 33-6-0, Exterior(2E) 33-6-0 to 37-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 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.
 6) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads. 7) * This truss has been designed for a live load of 20.0psf
- on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 One H2.5A Simpson Strong-Tie connectors
- recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 10. 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



818 Soundside Road

Edenton, NC 27932

Page: 1

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Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	B1	Roof Special	1	1	Job Reference (optional)	161412509

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:38 ID:6iPM5lr?FJUMxDStPvqO5SzF_Wb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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	-0-10-8 	6-5-8 6-5-8	12-6-6 6-0-14	12-9-8 0-3-2	18-9-8 6-0-0	<u>24-11-8</u> 6-2-0		-1-8 2-0	<u>36-3-0</u> 5-1-8	37-1-8 0-10-8
10-4-12 1-0-0 1-0-0 1-0-0 9-1-4	°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°	3 20 7 18 4x5=	6 ¹² x4	5x6 ≠ 4 ²¹ 26 27	22 22 14 2x4 II 1		5x6 24 6 12 12 29 4x6=	4xi 7 11 3x5=		3x5 ■ 8 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Scale = 1:70.4	<u>2-5-</u> 2-5-	<u>-8 8-11-8</u> -8 6-6-0	<u> </u>	<u>15-5-8</u> 6-6-0	<u>18-9-8</u> 3-4-0	<u>28-4</u> 9-7-			36-3-0 7-10-8	
Plate Offsets (X	(, Y): [4:0-3-0,0-3-4],	, [6:0-3-0,0-3-4], [15:	0-5-12,0-2-12], [17	':0-2-8,0-0-8]						
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/TPI20	CSI TC BC WB 14 Matrix	0.97 0.82 0.68 x-MSH	DEFL in Vert(LL) -0.31 Vert(CT) -0.57 Horz(CT) 0.29	(loc) l/defl 11-13 >999 16-17 >760 10 n/a	L/d PLATE 240 MT20 180 n/a Weight	ES GRIF 244/1 t: 228 lb FT =	90
BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS TOP CHORD BOT CHORD WEBS	Max Horiz 19=160 (I Max Uplift 10=-150 (Max Grav 10=1630 (Ib) - Maximum Corr Tension 1-2=0/38, 2-3=-3160 5-7=-2140/300, 7-8= 2-19=-1686/230, 8-1 18-19=-217/498, 17 2-17=-309/2577, 16 15-16=-182/2165, 11 -13-14=-65/25, 11-13 10-11=-126/1740 4-15=-776/250, 13-1 5-15=-191/1244, 5-1 6-13=-541/215, 6-11 2-18=-292/189, 7-10 3-16=-389/196, 4-16 d roof live loads have	2.0E, 14-12,12-10:2) athing directly applie applied or 10-0-0 oc -15,13-14. 5-13, 6-13, 7-10 19=0-5-8 _C 13) (LC 15), 19=-155 (LC (LC 3), 19=1649 (LC npression/Maximum)/339, 3-5=-2949/335 188/116, 8-9=0/27, 10=-260/144 -17=-360/2821, 4-15=-42/0, 3=-40/1755, 15=0/1543, 13=-100/331, 1=-1/278, 7-11=0/246 3=-89/808	Vasd= 2, Cat. II (4 Zone - 2-9-0 No.2 (1) 22 cantile d, right e DOL= 3) TCLL Plate DOL= Cs=1. 4) Unbal (14) 5) This t load c overh 5, 6) This t 3-06-(chord 8) One H recorn UPLIE 0, 7) * This 0, 100 H 0, 100 H 0	=103mph; TCE ; Exp B; Enclc and C-C Exter 5-0 to 33-6-0 ever left and ri exposed;C-C fa actions shown ASCE 7-16; 1 DOL=1.15); P 1.15); Is=1.0; 00; Ct=1.10 anced snow Ic 1. russ has been of 12.0 psf or 1 angs non-com truss has been live load nonc truss has been bottom chorce truss has been live load nonc truss has been of truss has been and an other 42.5A Simpson mended to co CT at it(s) 19 a and does not c russ is design ational Reside	Vult=130mph (3-sec DL=6.0psf; BCDL=6 osed; MWFRS (env iror(2E) -0-10-8 to 2 erior(2E) -0-10-8 to 2 erior(2E) 15-2-0 to , Exterior(2E) 33-6- ight exposed ; end vo or members and foi ; Lumber DOL=1.60 Pr=20.0 psf (roof Ll f=20.0 psf (conf Ll f=20.0 psf (Lum DC Rough Cat B; Fully bads have been cor a designed for great Lo0 times flat roof k current with other lin designed for great L00 times flat roof k current with other lin designed for great L00 times flat roof k current with other lin designed for a lift d in all areas where -00 wide will fit betv r members, with BC n Strong-Tie connec consider lateral force ed in accordance w ential Code sections renced standard AN dard	.0psf, h=25ft; elope) exterior -9-0, Interior (1) 22-5-0, Interior (2) 22-5-0, Interior (2) 20-5, Interi		CRIC C	SEAL D36322	023

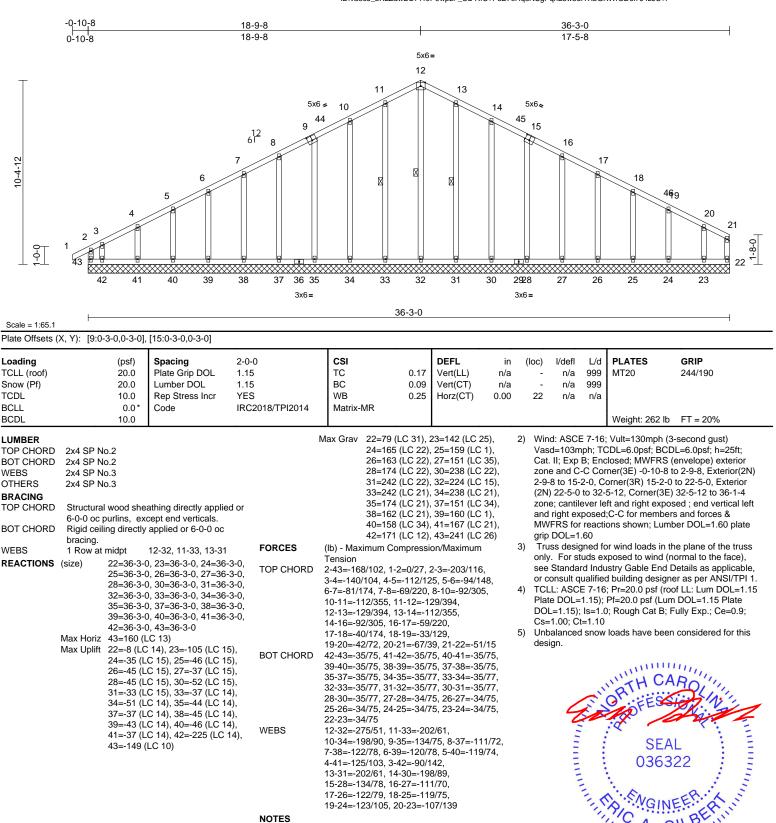
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use,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

818 Soundside Road Edenton, NC 27932

RIFING B

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	B1GE	Common Supported Gable	1	1	Job Reference (optional)	l61412510

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:39 ID:va6oJ_bKLZdwDLTYr9P9wpzF_UL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



NOTES

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

19-24=-123/105. 20-23=-107/139

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GI

Page: 1



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

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	B1GE	Common Supported Gable	1	1	Job Reference (optional)	l61412510
Carter Components (Sanfor	d, NC), Sanford, NC - 27332,	Run: 8.63 S Au	g 30 2023 Print: 8	630 S Aug 3	30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:39	Page: 2

ID:va6oJ_bKLZdwDLTYr9P9wpzF_UL-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 overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated. 7)
- 8) Gable requires continuous bottom chord bearing.
- 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web). 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 22, 149 lb uplift at joint 43, 37 lb uplift at joint 33, 51 lb uplift at joint 34, 44 lb uplift at joint 35, 37 lb uplift at joint 37, 45 lb uplift at joint 38, 43 lb uplift at joint 39, 46 lb uplift at joint 40, 37 lb uplift at joint 41, 225 lb uplift at joint 42, 33 lb uplift at joint 31, 52 lb uplift at joint 30, 45 Ib uplift at joint 28, 37 lb uplift at joint 27, 45 lb uplift at joint 26, 46 lb uplift at joint 25, 35 lb uplift at joint 24 and 105 lb uplift at joint 23.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

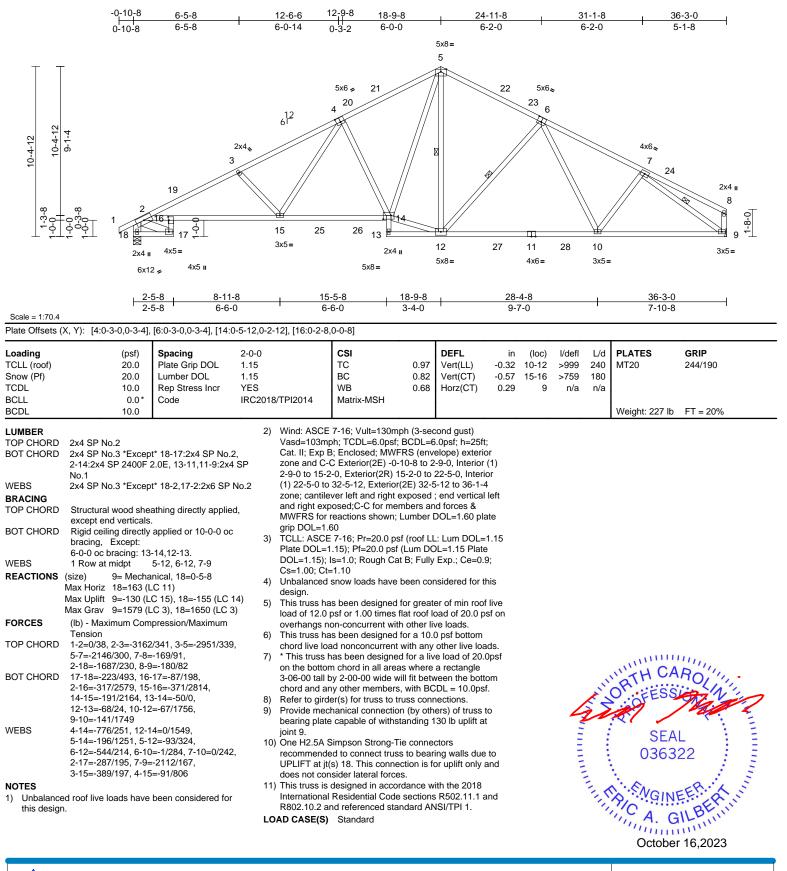
LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	B2	Roof Special	5	1	Job Reference (optional)	161412511

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818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	B3	Common	1	1	Job Reference (optional)	l61412512

10-4-12

TCDL

BCLL

BCDL

WEBS

WEBS

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-0-10-8 6-5-8 24-11-8 12-7-8 18-9-8 31-1-8 36-3-0 0-10-8 6-5-8 6-2-0 6-2-0 6-2-0 6-2-0 5-1-8 5x6= 5 5x6 ≠ 18 19 5x6 17 20 4 6 12 61 4x5 -4x6. 3 7 21 2x4 🛛 16 4x5 II 8 2 -8-0 9 22 13 23 25 10 14 12 24 11 3x5= 3x8: 3x5= 4x6= 3x8= 4x6= 3x5= 9-2-8 18-9-8 28-4-8 36-3-0 9-2-8 9-7-0 9-7-0 7-10-8 Scale = 1:66.4 Plate Offsets (X, Y): [2:0-2-8,0-1-12], [4:0-3-0,0-3-4], [6:0-3-0,0-3-4] Loading 2-0-0 CSI DEFL in l/defl L/d PLATES GRIP (psf) Spacing (loc) TCLL (roof) 20.0 Plate Grip DOL 1.15 TC 0.80 Vert(LL) -0.26 10-12 >999 240 MT20 244/190 Snow (Pf) 20.0 Lumber DOL 1.15 BC 0.87 Vert(CT) -0.45 10-12 >951 180 10.0 Rep Stress Incr WB Horz(CT) YES 0.66 0.10 9 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MSH Weight: 215 lb 10.0 FT = 20% LUMBER 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; TOP CHORD 2x4 SP No 2 Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior BOT CHORD 2x4 SP No.1 zone and C-C Exterior(2E) -0-10-8 to 2-9-0, Interior (1) 2x4 SP No.3 2-9-0 to 15-2-0, Exterior(2R) 15-2-0 to 22-5-0, Interior BRACING (1) 22-5-0 to 32-5-12, Exterior(2E) 32-5-12 to 36-1-4 TOP CHORD Structural wood sheathing directly applied or zone; cantilever left and right exposed ; end vertical left 2-2-0 oc purlins, except end verticals. and right exposed:C-C for members and forces & BOT CHORD Rigid ceiling directly applied or 10-0-0 oc MWFRS for reactions shown; Lumber DOL=1.60 plate bracing. grip DOL=1.60 1 Row at midpt 4-12, 6-12, 3-15, 7-9 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 **REACTIONS** (size) 9= Mechanical, 15=0-5-8 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate Max Horiz 15=160 (LC 11) DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Max Uplift 9=-130 (LC 15), 15=-160 (LC 14) Cs=1.00; Ct=1.10 Max Grav 9=1592 (LC 3), 15=1640 (LC 3) 4) Unbalanced snow loads have been considered for this FORCES (Ib) - Maximum Compression/Maximum desian. Tension This truss has been designed for greater of min roof live 5) TOP CHORD 1-2=0/27, 2-3=-550/149, 3-5=-2406/299, load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on 5-7=-2164/299, 7-8=-173/90, 2-15=-457/158, overhangs non-concurrent with other live loads. 8-9=-180/81 This truss has been designed for a 10.0 psf bottom 6) BOT CHORD 14-15=-285/2138, 12-14=-164/1885,

10-12=-68/1779, 9-10=-142/1763 WEBS 3-14=-177/182, 4-14=-29/499, 4-12=-681/229, 5-12=-98/1198 6-12=-540/216, 7-10=0/244, 3-15=-2025/152, 7-9=-2125/170, 6-10=-4/267

NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- chord live load nonconcurrent with any other live loads. 7) * 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. Refer to girder(s) for truss to truss connections. 8)
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 9.
- 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15. 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 R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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818 Soundside Road

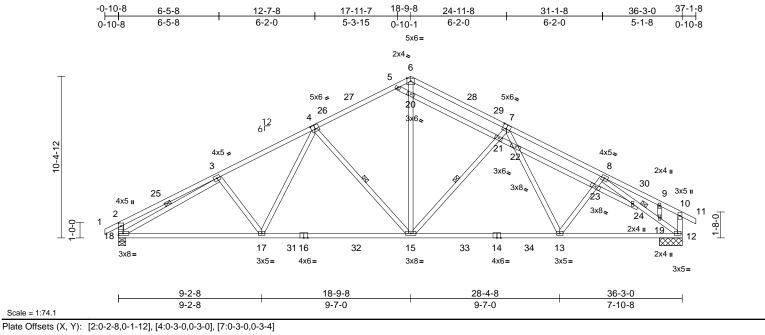
Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	BSE	Common Structural Gable	1	1	Job Reference (optional)	161412513

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Page: 1



ICLL ICDL OP CHORD 2x4 SP N OT CHORD 2x4 SP N VEBS 2x4 SP N	0.0* 10.0	Code	IRC2018	8/TPI2014	Matrix-MSH	0.68	Horz(CT)	0.10	13-15 12	>966 n/a	180 n/a		
OP CHORD 2x4 SP N OT CHORD 2x4 SP N	10.2				Wath wish							Weight: 243 lb	FT = 20%
OTHERS 2x4 SP N IRACING Structure OP CHORD Structure 3-3-10 o O OT CHORD Rigid cei bracing. bracing. VEBS 1 Row at OINTS 1 Brace VEBS 1 Row at OINTS 1 Brace VEACTIONS (size) Max Horiz Max Horiz Max Uplift Max Grav OP CHORD 1-2=0/27 5-6=-145 8-9=-160 2-18=-44 -94-160 VOT CHORD 17-18=-2 VEBS 3-17=-15	lo.1 lo.3 lo.3 al wood shea c purlins, ec ling directly t midpt at Jt(s): 24 12=1-5-8, 18=157 (L 12=-150 (12=1644 (ximum Com 7, 2-3=-537/- 76/228, 6-8= 1/104, 9-10= 15/155, 10-1 279/2147, 14 279/2147, 14 279/2147, 14	C 13) LC 15), 18=-160 (LC LC 3), 18=1639 (LC pression/Maximum 144, 3-5=-2407/295, -1828/191, -207/67, 10-11=0/27 2=-276/107 5-17=-153/1877, 13=-141/1867 =-34/509,	3) (14) (3) (4) (3) (5) (6) (7) (7) (8)	Vasd=103mp Cat. II; Exp E zone and C-(2-9-0 to 15-2 (1) 22-5-0 to cantilever lef right exposed for reactions DOL=1.60 Truss design 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 nu Truss to be fi braced again Gable studs	snow loads have be s been designed fo osf or 1.00 times fla on-concurrent with ully sheathed from st lateral movemen spaced at 2-0-0 oc.	CDL=6 (S) (env) (2-8 to 2) (2-0 t	.0psf; h=25ft; elope) exterio -9-0, Interior (22-5-0, Interior (0 to 37-1-8 zc vertical left an cces & MWFR 0 plate grip lane of the tru al to the face) ils as applicat s per ANSI/TF ulane of the tru al to the face) ils as applicat s per ANSI/TF L=1.15 Plate Exp.; Ce=0.9 asidered for th er of min roof bad of 20.0 ps ve loads. e or securely iagonal web).	r 1) or d S ss , ole, , 11. .15 ; is live fon	trus con forc 13) This Inte	s to bea nection es. truss is rnationa 2.10.2 a	iring wa is for u s desig al Resio and ref	connectors record alls due to UPLIF iplift only and do ned in accordand dential Code sec erenced standar	mmended to connect T at jt(s) 12. This es not consider later ce with the 2018 tions R502.11.1 and
6-20=-91 7-21=-53 3-18=-20 19-24=-2 7-22=-3/ 5-20=-48	/1168, 15-2 99/215, 13-2 937/157, 8-2 2182/169, 12 246, 13-22= 96/130, 20-2 506/129, 22-	0=-90/1185, 1=-556/221, 3=0/207, 8-23=0/23; 4=-1720/94, 2-19=-2177/191, -9/298, 9-19=-34/37 1=-488/123, 23=-517/124,	,	chord live loa) * This truss h on the bottom 3-06-00 tall b chord and an) One H2.5A S recommende	s been designed fo d nonconcurrent w las been designed in n chord in all areas y 2-00-00 wide will y other members, y simpson Strong-Tie d to connect truss is s) 18. This connect	ith any for a liv where fit betw with BC connee to bear	other live load e load of 20.0 a rectangle veen the botto DL = 10.0psf. ctors ing walls due	ipsf im to		Jan 1997		SEA 0363	• •

NOTES

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

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818 Soundside Road Edenton, NC 27932

October 16,2023

minim

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	С	Common	5	1	Job Reference (optional)	l61412514

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Page: 1

	-0-10-8 	7-11-12 7-11-12	15-1-8	17-7-8	20-1	1-8 -0	27-5- 7-4-3				<u>35-3-0</u> 7-9-5	36-1-8
	0-10-8	1-11-12	1-1-12	2-0-0	2-0 4x8=	0	/ -4-,				1-9-0	0-10-8
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		20 2x4 <i>y</i>	19 18 3x6= 3x	3 38 (5=	17 2x4 I	39	16 2x4=	15 3x6:	-		14 ^{2x4} %	_
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		6-0-13	12-10-3	17-7-8		22-4-13		29-2			35-3	
Scale = 1:66.6	1	6-0-13	6-9-6	4-9-5	1	4-9-5		6-9	-6		6-0-1	13
ate Offsets (X	, Y): [2:0-4-10,0-0-	5], [7:0-4-0,Edge], [12:0	-4-10,0-0-5]									-
bading	(psf)	1 · ·	2-0-0	CSI	0.74	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
CLL (roof) now (Pf)	20.0 20.0	Lumber DOL	1.15 1.15	TC BC		Vert(LL) Vert(CT)	-0.44	17	>999 >970	240 180	MT20	244/190
CDL CLL	10.0 0.0*		YES IRC2018/TPI2014	WB Matrix-MSH	0.85	Horz(CT)	0.09	12	n/a	n/a		
CDL	10.0										Weight: 235 lt	FT = 20%
DT CHORD EBS IDER RACING DP CHORD DT CHORD EBS EACTIONS	1-6-0 Structural wood shu 3-4-11 oc purlins. Rigid ceiling directh bracing. 1 Row at midpt size) 2=0-5-8, Aax Horiz 2=145 (L Aax Uplift 2=-47 (L	1-6-0, Right 2x6 SP No eathing directly applied of y applied or 10-0-0 oc 21-22 12=0-5-8	Cat. II; Exp B zone and C-C 2-10-0 to 14-1 (1) 21-1-13 to zone; cantilev and right exp MWFRS for m grip DOL=1.6 3) TCLL: ASCE Plate DOL=1. DOL=1.15); Is Cs=1.00; Ct= 4) Unbalanced s design.	7-16; Pr=20.0 psf 15); Pf=20.0 psf (l s=1.0; Rough Cat 1.10 snow loads have b	RS (enve -5 to 2-1 4-1-3 to 2E) 32-5- cposed ; bers and umber D (roof LL: Lum DO B; Fully I een con:	elope) exter 0-0, Interio 21-1-13, Ir -0 to 35-11 end vertica d forces & 00L=1.60 p : Lum DOL L=1.15 Pla Exp.; Ce=0 sidered for	rior r (1) -5 al left elate =1.15 te .9; this					
ORCES	(lb) - Maximum Cor	mpression/Maximum	load of 12.0 p	s been designed fo sf or 1.00 times fla	at roof lo	ad of 20.0						
OP CHORD		4/70, 4-6=-2135/76,	6) 200.0lb AC ur	n-concurrent with nit load placed on	the botto	om chord, 1						
	6-7=-95/96, 7-8=-10 10-12=-2449/71, 12	07/101, 8-10=-2136/73, 2-13=0/19	,	supported at two s been designed for	,							0.00
OT CHORD	2-20=-193/2078, 18 17-18=0/1689, 16-1	8-20=-98/2070, 17=0/1689, 14-16=0/207	chord live load	d nonconcurrent w as been designed	vith any o	other live lo	oads.				"TH C	ARO
EBS	12-14=-62/2085	=0/575, 4-18=-450/294,	on the bottom	n chord in all areas y 2-00-00 wide wil	where a	a rectangle				A	OFFES	IN N'S
OTES	18-21=0/586, 6-21= 21-23=-22/0, 22-23	=-451/295, 10-14=0/146 =0/612, 6-8=-1717/159, }=-22/0, 17-23=0/66	, chord and any 9) One H2.5A Si recommender UPLIFT at jt(s	y other members. impson Strong-Tie d to connect truss s) 2 and 12. This c s not consider late	e connec to bearin onnectio	tors ng walls du on is for upl	ie to		Jan 11	C.	SE/	•
Unbalanced this design.	I FOOT IIVE loads have	e been considered for	10) This truss is c International F R802.10.2 an	designed in accord Residential Code s d referenced stan	lance wit sections	th the 2018 R502.11.1			1111			IEER X
			LOAD CASE(S)	Stanuard						in a		GILBERT
											Octobe	er 16.2023

October 16,2023

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



Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	C1	Common	4	1	Job Reference (optional)	l61412515

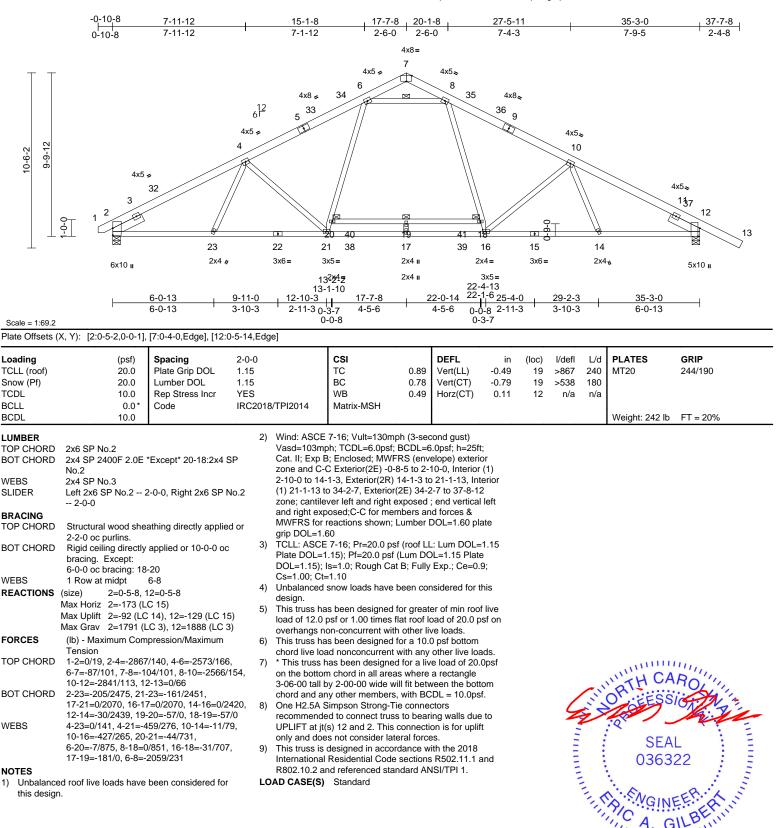
Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:42 ID:MV7Qc?M0dtQGkhooWQpRIZzEzeQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Dct 13 15:36:42 Page: 1 WrCDoi7J4zJC?f

October 16,2023

818 Soundside Road

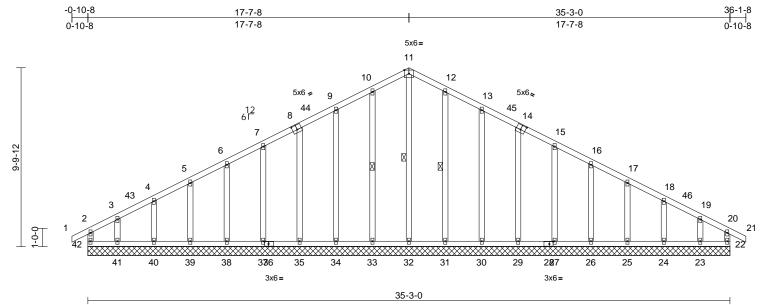
Edenton, NC 27932



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

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	CGE	Common Supported Gable	1	1	Job Reference (optional)	161412516

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:43 ID:HSVLvMXIBUOh6UIn9Dc1gjzEzgn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:63.2

Plate Offsets (X, Y): [8:0-3-0,0-3-0], [14:0-3-0,0-3-0], [28:0-2-8,0-1-8], [36:0-2-8,0-1-8]

Loading		(psf)	Spacing	2-0-0)	csi		DEFL	in	(lo	c) l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.15	Vert(LL)	n/a		- n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.07	Vert(CT)	n/a		- n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.22	Horz(CT)	0.01	2	2 n/a	n/a		
BCLL		0.0*	Code	IRC2	018/TPI2014	Matrix-MR								
BCDL		10.0					-						Weight: 243 lb	FT = 20%
LUMBER					FORCES	(lb) - Maximum C	ompressi	on/Maximum					; Vult=130mph (3	
TOP CHORE						Tension								L=6.0psf; h=25ft;
BOT CHORE					TOP CHORD	2-42=-121/65, 1-2	,	,						envelope) exterior
WEBS	2x4 SP N					3-4=-91/82, 4-5=	,	,	-					o 2-7-13, Exterior
OTHERS	2x4 SP N	10.3				6-7=-52/167, 7-9	,		3,					14-1-3 to 21-1-13, mer(3E) 32-7-3 to
BRACING						10-11=-122/342, 12-13=-105/303,							ilever left and right	
TOP CHORE			athing directly applie	ed or		15-16=-52/167, 1								for members and
			cept end verticals.			17-18=-43/77, 18			/47				for reactions sho	
BOT CHORE	•	ling directly	applied or 6-0-0 oc			20-21=0/27, 20-2			,				rip DOL=1.60	,
WEBS	bracing. 1 Row at	midnt	11-32, 10-33, 12-31		BOT CHORD	41-42=-44/119, 4	0-41=-44	/119,						ne plane of the truss
REACTIONS		•), 23=35-3-0, 24=35			39-40=-44/119, 3	8-39=-44	/119,		Ċ	only. For st	tuds ex	posed to wind (n	ormal to the face),
REACTIONS	s (size)), 23=35-3-0, 24=35), 26=35-3-0, 27=35			37-38=-44/119, 3								Details as applicable,
), 30=35-3-0, 31=35			34-35=-44/122, 3								er as per ANSI/TPI 1
), 33=35-3-0, 34=35			32-33=-44/122, 3		,						of LL: Lum DOL=1.15
), 37=35-3-0, 38=35	,		30-31=-44/122, 2		,						DOL=1.15 Plate
		39=35-3-0	0, 40=35-3-0, 41=35	-3-0,		27-29=-43/119, 2 25-26=-43/119, 2					DOL=1.15) Cs=1.00; C			Fully Exp.; Ce=0.9;
		42=35-3-0)			23-24=-43/119, 2		,						considered for this
		42=-133 (WEBS	11-32=-232/46, 1				'	design.	1 3110 W	Idads have been	
	Max Uplift		.C 11), 23=-107 (LC			9-34=-198/88, 8-3		,	71.					
			C 15), 25=-46 (LC 1			6-38=-123/79, 5-3		,	'				WITH CA	111
			.C 15), 27=-38 (LC 1			3-41=-95/113, 12	-31=-202	/64,					N''LL CA	Dill
		· ·	C 15), 30=-52 (LC 1			13-30=-198/88, 1	4-29=-13	3/77,					THUA	ROM
			.C 15), 33=-37 (LC 1 .C 14), 35=-44 (LC 1			15-27=-111/71, 1						×	ONFESS	Do his
			.C 14), 38=-44 (LC 1			17-25=-118/76, 1	8-24=-12	6/81,				1 k	ior	March 1
			.C 14), 40=-30 (LC 1			19-23=-91/123							:0	4: 3
			LC 14), 42=-55 (LC		NOTES						2	() }		
	Max Grav		_C 27), 23=131 (LC		,	ed roof live loads ha	ave been (considered for					SEA	L : =
			_C 22), 25=158 (LC		this desigr	۱.						:	0262	22 : =
			_C 22), 27=151 (LC										0303	~~ : :
			_C 22), 30=238 (LC								-			1 E
			_C 22), 32=203 (LC									1	·	Airs
			_C 21), 34=238 (LC									1,5	S GIN	EER HILL
			_C 21), 37=151 (LC									11	10	BEN
			_C 21), 39=158 (LC										11, A. G	ILLUN
		40=167 (L 42=154 (L	_C 21), 41=145 (LC	Z4),									(IIIIII)	mm
		42=104 (L	_0 _0)										Octoba	16 2022

October 16,2023

Page: 1



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 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)

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	CGE	Common Supported Gable	1	1	Job Reference (optional)	l61412516

- 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.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 22, 55 lb uplift at joint 42, 37 lb uplift at joint 33, 51 lb uplift at joint 34, 44 lb uplift at joint 35, 37 lb uplift at joint 37, 44 lb uplift at joint 38, 47 lb uplift at joint 39, 30 lb uplift at joint 40, 125 lb uplift at joint 41, 36 lb uplift at joint 31, 52 lb uplift at joint 30, 44 lb uplift at joint 29, 38 lb uplift at joint 27, 45 lb uplift at joint 26, 46 lb uplift at joint 25, 33 lb uplift at joint 24 and 107 lb uplift at joint 23.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:43 ID:HSVLvMXIBUOh6UIn9Dc1gjzEzgn-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	138 Serenity	
24020082	D	Common	4	1	Job Reference (optional)	161412517

6-11-8

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

TCDL

BCLL

BCDL

WEBS

WEBS

1)

2)

-0-10-8

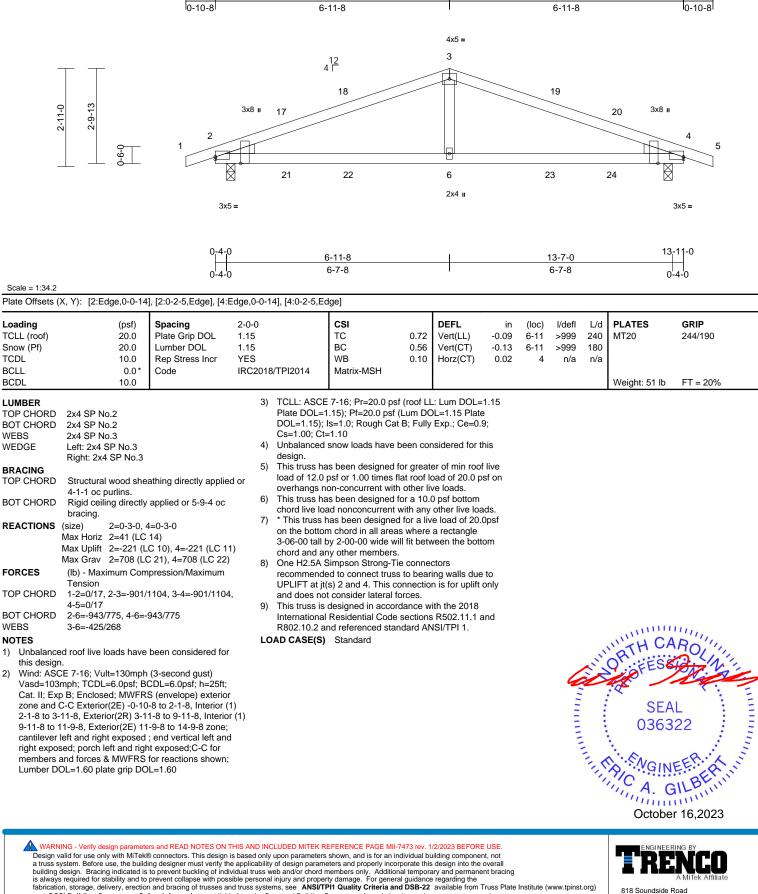
Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:43 ID:nqLL14Jf5JAmMe82YAnlwAzF_pM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

13-11-0



14-9-8

Page: 1



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

818 Soundside Road Edenton, NC 27932

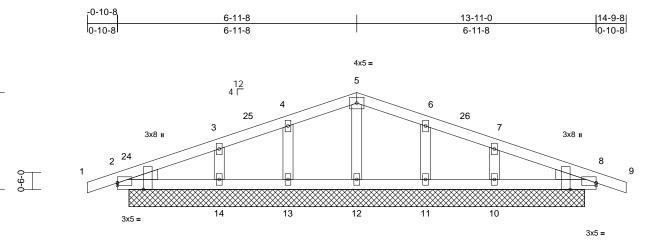
Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	DGE	Common Supported Gable	1	1	Job Reference (optional)	161412518

2-9-13

2-11-0

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:43 ID:UUQhZhEGk9Im0a6ieC968izF_pT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





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]

Plate Offsets ((X, Y): [2:Edge,0-0-14], [2:0-2-5,Edge], [8:Edge	e,0-0-1	4], [8:0-2-5,Ec	lge]								
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Plate Grip DOL1.Lumber DOL1.Rep Stress IncrYI	-0-0 .15 .15 ES &C2018	/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.3 Left: 2x4 SP No.3 Right: 2x4 SP No.3 Structural wood she 10-0-0 oc purlins. Rigid ceiling directly bracing. (size) 2=13-3-0, 11=13-3-(14=13-3-0) Max Horiz 2=41 (LC Max Uplift 2=-1 (LC 10=-44 (L 12=-47 (L 14=-75 (L 21=-71 (L Max Grav 2=0 (LC 1 10=302 (L 12=420 (L	8=13-3-0, 10=13-3-0, 0, 12=13-3-0, 13=13-3-0, 1, 18=13-3-0, 21=13-3-0 14), 18=41 (LC 14) 21), 8=-71 (LC 34), C 15), 11=-35 (LC 11), C 10), 13=-23 (LC 14), C 10), 18=-1 (LC 21), C 34) 0), 8=128 (LC 22), C 22), 11=205 (LC 22), C 21), 13=123 (LC 21), C 21), 18=0 (LC 10),	2) 	this design. Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-1 2-1-8 to 3-11 (2N) 9-11-8 t cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1.15); CS=1.00; Ct= Unbalanced design. This truss has load of 12.0 µ	roof live loads have 7-16; Vult=130mpl bh; TCDL=6.0psf; E 3; Enclosed; MWFF C Corner(3E) -0-10 -8, Corner(3R) 3-1 o 11-9-8, Corner(3R) 3-1 o 11-9-	h (3-sec 3CDL=6 3CDL=6 3C (env) -8 to 2- 1-8 to 2 E) 11-9 d; end v and fo DL=1.6(in the p d (norm hd Deta igner a: (roof LL Lum DC B; Fully een cor or great at roof h other lii	cond gust) 0.0psf; h=25ft; elope) exterior 1-8, Exterior(2 -11-8, Exterior(2 -11-8, Exterior(2 -11-8, Exterior(2 -11-8, Exterior(2 -11-8, Exterior(2 -12-8, Exterior(2 -12-11) -13-12 -13-	r 2N) or one; d S ss ss ble, l.15 l.15 l; live	13) This Inte	s truss is rnationa)2.10.2 a	s desig al Resid and ref	erenced standar	ce with the 2018 tions R502.11.1 and
FORCES		•	9)	This truss ha chord live loa	spaced at 2-0-0 oc s been designed fo ad nonconcurrent w has been designed	or a 10. vith any	other live load			4		SEA	L
BOT CHORD	7-8=-217/405, 8-9=0 2-14=-365/260, 13-1 12-13=-365/260, 11- 10-11=-365/260, 8-1	4=-365/260, -12=-365/260,	 8) Gable studs spaced at 2-0 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) N/A 								22		
WEBS	5-12=-360/181, 4-13 3-14=-275/153, 6-11 7-10=-212/127	8=-146/110,	11)	N/A								A. C	EELER
NOTES												A. C	IIIIIII I

October 16,2023

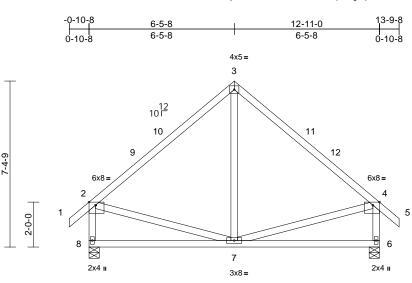
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use,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

A MiTek Affilia 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	E	Common	3	1	Job Reference (optional)	l61412519

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:44 $ID: wb1oEU3ot9zDodjcIXhweSzF_Yu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f$

Page: 1





Scale = 1:51.2	
Plate Offsets (X, Y):	[2:0-3-8,Edge], [4:0-3-8,Edge]

	, 1). [2.0-3-0,Euge],	[4.0-5-0,Luge]				-							
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	1.00 0.35 0.09	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: 81 lb	GRIP 244/190 FT = 20%
	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 5-1-1 oc purlins, exc Rigid ceiling directly bracing. (size) 6=0-5-8, & Max Horiz 8=205 (LC Max Grav 6=649 (LC (lb) - Maximum Com Tension 1-2=0/39, 2-3=-528/ 4-5=0/39, 2-8=-591/ 7-8=-205/268, 6-7=-i 3-7=0/211, 2-7=-50/2	cept end verticals. applied or 10-0-0 oc 3=0-5-8 C 13) C 15), 8=-49 (LC 14) C 22), 8=649 (LC 21) pression/Maximum 142, 3-4=-528/142, 175, 4-6=-591/160 82/168	d or 6) ; 7) 8) 9)	design. This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall t chord and ar One H2.5A \$ recommende UPLIFT at jtt and does no This truss is International	snow loads have as been designed psf or 1.00 times on-concurrent wit as been designed ad nonconcurrent has been designed m chord in all aree by 2-00-00 wide w y other members Simpson Strong-T ad to connect trus (s) 8 and 6. This c t consider lateral i designed in accoo Residential Code nd referenced sta Standard	for great flat roof I h other Ii for a 10. with any d for a Iiv as where vill fit betw Te conne s to bear connectio forces. w e sections	er of min rood oad of 20.0 p ve loads. 0 psf bottom other live loa re load of 20.1 a rectangle veen the bott ctors ing walls due n is for uplift ith the 2018 s R502.11.1 a	f live sf on ads. Opsf om e to only					
 Unbalance this design Wind: ASC Vasd=103r Cat. II; Exp 	d roof live loads have E 7-16; Vult=130mph mph; TCDL=6.0psf; B(B; Enclosed; MWFR; -C Exterior(2E) -0-10	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior	r							4	- ALI	ORTH CA	ROUNT

- zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 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 DOI = 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/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Schut Information, purplication component of component development properties. and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road Edenton, NC 27932

GI

11 GILIN October 16,2023

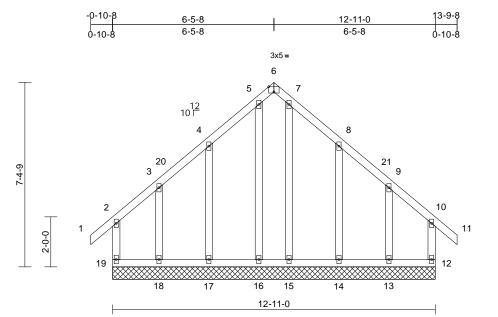
SEAL 036322

WITTER COMPANY

WWWWWWWWW

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	EGE	Common Supported Gable	1	1	Job Reference (optional)	161412520

Run: 8.63 Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:44 ID:hs_OLPz9_OqUDEXuG81pmYzF_Z1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:46.1

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

		1	-									1	
Loading	(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.24	Vert(LL)	n/a	· -	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.15	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC201	B/TPI2014	Matrix-MR								
BCDL	10.0											Weight: 95 lb	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, exi Rigid ceiling directly bracing. (size) 12=12-11 14=12-11 16=12-11 18=12-11 Max Horiz 19=-205 (Max Uplift 12=-132 (14=-85 (L 18=-149 (Max Grav 12=206 (L 14=270 (L	applied or 6-0-0 oc -0, 13=12-11-0, -0, 15=12-11-0, -0, 17=12-11-0, -0, 19=12-11-0 LC 12) LC 11), 13=-144 (LC 14) LC 15), 17=-84 (LC 14) LC 11), 19=-138 (LC	2) or 3) 10), 4) 10) 5), 2), 5)	this design. Wind: ASCE Vasd=103mg Cat. II; Exp E zone and C-((2N) 1-10-4 t (2N) 9-5-8 to cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct=	roof live loads have 7-16; Vult=130mpt bh; TCDL=6.0psf; E 3; Enclosed; MWFR C Corner(3E) -0-10 o 3-5-8, Corner(3E 10-9-8, Corner(3E t and right exposed t;C-C for members shown; Lumber DC hed for wind loads i 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 (15); Pf=20.0 psf(15); Pf=20.0 psf (15); Pf=20.0 psf(15); Pf=20.0 psf(15); Pf=20.0	n (3-sec GCDL=6 S (envi- 8 to 1-) 3-5-8) 10-9-8 i; end v i; end v i; end v contained Deta igner as (roof LL _um DC B; Fully	cond gust) .0psf; h=25ft; elope) exterior 10-4, Exterior to 9-5-8, Exterior to 10-4, Ex	r ne; d S ss), ole, 1.15);	bea join 149 upli 14) This Inte R80	ring plat t 19, 132 I b uplift ff at joint s truss is rnationa 12.10.2 <i>c</i> CASE(S)	e capa 2 lb upl at join t 13. 5 desig Il Resid and ref) Star	al connection (by able of withstand lift at joint 12, 84 It 18, 85 lb uplift ned in accordam, dential Code sec ierenced standar ndard	/ others) of truss to ing 138 lb uplift at lb uplift at joint 17, at joint 14 and 144 lb ce with the 2018 tions R502.11.1 and d ANSI/TPI 1.
FORCES	18=257 (L (lb) - Maximum Com	C 24), 19=212 (LC 25	5) 6)		s been designed fo							NITH CA	ROUL
IONCES	Tension	pression/maximum			osf or 1.00 times fla			st on			1	R	- Alle
TOP CHORD	2-19=-157/201, 1-2= 3-4=-64/218, 4-5=-1 6-7=-88/237, 7-8=-1	0/39, 2-3=-125/137, 17/346, 5-6=-89/237, 18/345, 8-9=-60/222, 1=0/39, 10-12=-153/1	7) 8) 9)	All plates are Gable require Truss to be f	on-concurrent with 2x4 MT20 unless es continuous botto ully sheathed from	otherwi om chor one fac	se indicated. d bearing. e or securely			4	20	11/	KAU
BOT CHORD	18-19=-108/102, 17- 16-17=-108/102, 15- 14-15=-108/102, 13- 12-13=-108/102	18=-108/102, 16=-108/102,	10 11) Gable studs :) This truss ha chord live loa	Institute and the second state of the second second state of the s	or a 10.0 vith any) psf bottom other live load	ds.		1111111111		SEA 0363	
WEBS		-178/7, 4-17=-228/17 228/170,	8, ¹²	on the botton 3-06-00 tall b	as been designed n chord in all areas by 2-00-00 wide will by other members.	where	a rectangle	•				RIC NGIN	EERER
NOTES					,								

October 16,2023

Page: 1

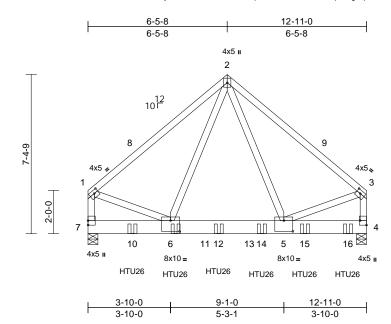


WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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 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/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	138 Serenity	
24020082	EGR	Common Girder	1	2	Job Reference (optional)	l61412521

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:44 ID:ySTbSIhb7CBDnk89ITG2qHzF_9Z-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:53.4

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

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	0.77 0.28 0.70	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.05 -0.09 0.00	(loc) 5-6 5-6 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 202 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x8 SP 2400F 2.0E 2x4 SP No.3 Structural wood shea 5-2-11 oc purlins, e: Rigid ceiling directly bracing.	xcept end verticals. applied or 10-0-0 oc 7=0-5-8 C 9) C 12), 7=-419 (LC 1 .C 6), 7=4833 (LC 5)	5) 6) 3) 7)	Vasd=103mj Cat. II; Exp B zone; cantile and right exp DOL=1.60 TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct: Unbalanced design. This truss ha chord live loa	7-16; Vult=130m poh; TCDL=6.0psf; 3; Enclosed; MWF ver left and right e bosed; Lumber DC 57-16; Pr=20.0 psf ls=1.0; Rough Ca =1.10 snow loads have us been designed ad nonconcurrent has been designed	BCDL=6 RS (env exposed DL=1.60 of (roof LL (Lum DC t B; Fully been cor for a 10.1 with any	.0psf; h=25ft elope) interio end vertical olate grip .: Lum DOL= DL=1.15 Plate Exp.; Ce=0.1 usidered for t 0 psf bottom other live loa	r left 1.15 9; his nds.				(B), 10=-1417 (B 15=-1414 (B), 16	
TOP CHORD BOT CHORD WEBS	Tension 1-2=-4324/435, 2-3= 1-7=-4234/385, 3-4=	:-4349/439, :-4252/387 213/2268, 4-5=-90/2 :-248/2687,	,	on the bottor 3-06-00 tall to chord and ar One H2.5A S recommende	n chord in all area by 2-00-00 wide w by other members Simpson Strong-T ed to connect trus: s) 7 and 4. This c	as where rill fit betw , with BC ie conne s to bear	a rectangle veen the bott DL = 10.0ps ctors ing walls due	om f. to					
 (0.131"x3 Top chord oc. Bottom ch staggeree Web conr All loads a except if n CASE(S) provided unless oth 	s to be connected toget ") nails as follows: ds connected as follows: nords connected as follows at 0-6-0 oc. nected as follows: 2x4 - are considered equally noted as front (F) or bac section. Ply to ply conr to distribute only loads nerwise indicated. ed roof live loads have	ther with 10d 5: 2x4 - 1 row at 0-9- ows: 2x8 - 2 rows 1 row at 0-9-0 oc. applied to all plies, ck (B) face in the LO nections have been noted as (F) or (B),	0 11 DAD 12 LC 1)	and does no) This truss is International R802.10.2 a) Use Simpson 11-10dx1 1/2 spaced at 2- end to 12-0- end to 12-0- bottom chore) Fill all nail ho Pad + San Increase=1 Uniform Lo Vert: 1-2	t consider lateral f designed in accor Residential Code and referenced stain o Strong-Tie HTU: 2 Truss, Single Ply 0-0 oc max. startii 12 to connect trus d. oles where hanger Standard w (balanced): Lu .15	Forces. rdance w sections ndard AN 26 (20-10 y Girder) ng at 2-0 s(es) to b r is in cor mber Inc	ith the 2018 R502.11.1 a ISI/TPI 1. Od Girder, or equivalent -12 from the pack face of ttact with lum	and t left iber.		Contraction of the second seco		SEA 0363	

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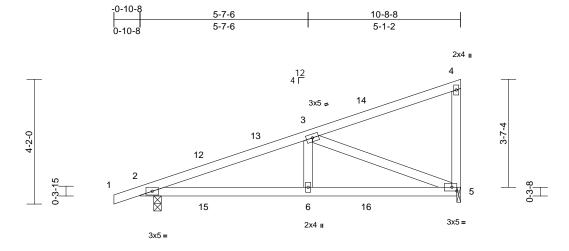
October 16,2023

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	F	Monopitch	2	1	Job Reference (optional)	l61412522

Scale = 1:38.5

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:45 ID:9J?nSM2QtleiTNQUoeql4rzF_lq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



0-5-8	5-7-6	10-7-0	10-8-8
0-5-8	5-1-14	4-11-10	0-1-8

		1											
Loading	(psf)	Spacing	2-0-0		CSI	0.40	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.40	Vert(LL)	0.06	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.28	Vert(CT)	0.05	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.44	Horz(CT)	0.01	5	n/a	n/a		
BCLL BCDL	0.0* 10.0	Code	IRC201	8/TPI2014	Matrix-MSH							Weight: 49 lb	FT = 20%
		Į	5)	This truss ha	s been designed fo	or a 10 () psf bottom						-
TOP CHORD	2x4 SP No.2		0)		ad nonconcurrent w			ds.					
BOT CHORD	2x4 SP No.2		6)	* This truss h	as been designed	for a liv	e load of 20.0	Opsf					
WEBS	2x4 SP No.3				n chord in all areas								
BRACING					y 2-00-00 wide wil	ll fit betv	veen the botto	om					
TOP CHORD	Structural wood she		d or 7)		y other members.								
	6-0-0 oc purlins, ex		.,	capacity of 5	assumed to be: , .	Joint 5 c	SP NO.3 Crush	ling					
BOT CHORD	Rigid ceiling directly bracing.	applied or 6-5-13 or	; 8)	Bearing at jo	int(s) 5 considers p								
REACTIONS	(size) 2=0-3-0, 5	5=0-1-8			Pl 1 angle to grain uld verify capacity								
	Max Horiz 2=147 (LC	C 13)	9)		hanical connection			0					
	Max Uplift 2=-191 (L	.C 10), 5=-160 (LC 1	0) (0)	bearing plate				0					
	Max Grav 2=560 (LC	C 21), 5=527 (LC 21	10		Simpson Strong-Tie	e conne	ctors						
FORCES	(lb) - Maximum Com Tension	pression/Maximum		recommende	ed to connect truss s) 2 and 5. This co	to bear	ing walls due						
TOP CHORD	1-2=0/17, 2-3=-862/	778, 3-4=-104/63,		and does not	consider lateral fo	orces.		,					
BOT CHORD	4-5=-188/103 2-6=-737/778, 5-6=-	727/770	11		designed in accord			ام ما					
WEBS	3-6=-309/217.3-5=-				Residential Code and referenced stan			nu					
NOTES	0 0- 000/217, 0-0	000/002	1.	DAD CASE(S)		uaru An	NGI/1F11.						
			L.		Stanuaru								

 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 7-6-12, Exterior(2E) 7-6-12 to 10-6-12 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

- 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.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.



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Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	F1	Monopitch	4	1	Job Reference (optional)	l61412523

5-1-14 5-1-14

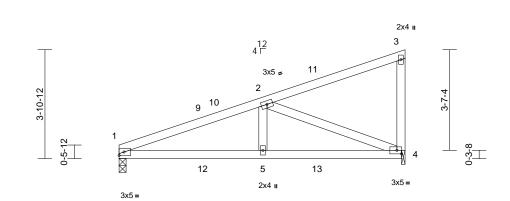
Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:45 ID:GvbiD6mwqAlkl5J6aNwunUzF_nU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

10-3-0

5-1-2





L	5-1-14	10-1-8	10-3-0 Ll
Γ	5-1-14	4-11-10	0-1-8

Scale =	1:41.3
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				· · · · · · · · · · · · · · · · · · ·					
Loading (psf)	Spacing	2-0-0	CSI	DEFL in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0		1.15	TC 0.41	Vert(LL) 0.05	4-5	>999	240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL	1.15	BC 0.28	Vert(CT) 0.04	4-5	>999	180		
TCDL 10.0		YES	WB 0.45	Horz(CT) 0.01	4	n/a	n/a		
BCLL 0.0*	Code	IRC2018/TPI2014	Matrix-MSH						
BCDL 10.0								Weight: 46 lb	FT = 20%
LUMBER TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3 BRACING TOP CHORD Structural wood she 6-0-0 oc purlins, ex BOT CHORD Rigid ceiling directly bracing. REACTIONS (size) 1=0-3-0,4 Max Horiz 1=139 (LC Max Uplift 1=-142 (L Max Grav 1=465 (LC FORCES (lb) - Maximum Com Tension	applied or 6-2-4 oc 4=0-1-8 C 13) C 10), 4=-163 (LC 10) C 21), 4=532 (LC 21) pression/Maximum 104/50, 3-4=-187/103 826/799 830/924 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior to 3-0-0, Interior (1) 4 to 10-1-4 zone; ; end vertical left and nt exposed;C-C for for reactions shown; ν L=1.60 roof LL: Lum DOL=1.1 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9; then considered for this r a 10.0 psf bottom	on the bottor 3-06-00 tall b chord and ar 6) Bearings are capacity of 5 7) Bearing at jo using ANSI/I designer sho 8) Provide mec bearing plate 9) One H2.5A S recommende UPLIFT at jt(and does noi 10) This truss is International R802.10.2 ar LOAD CASE(S)	int(s) 4 considers parallel f TPI 1 angle to grain formula puld verify capacity of bear hanical connection (by oth at joint(s) 4. Simpson Strong-Tie conne- d to connect truss to bear (s) 1 and 4. This connection t consider lateral forces. designed in accordance w Residential Code sections nd referenced standard AN	a rectangle ween the bottom SP No.3 crushing to grain value a. Building ing surface. wers) of truss to ctors ing walls due to n is for uplift only with the 2018 s R502.11.1 and		With the second s	in	OR FESS	ROUTIN

- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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G 11111111 October 16,2023

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	F1GE	Monopitch Supported Gable	1	1	Job Reference (optional)	l61412524

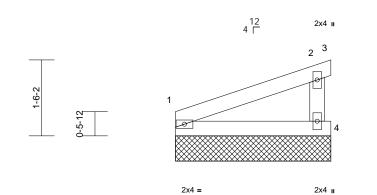
3-1-0

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

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:45 ID:05Rb2nqdzWbg0FxJai2r9FzF_oh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-6-2

Page: 1







Scale = 1:22.9

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	/TPI2014	CSI TC BC WB Matrix-MP	0.12 0.08 0.00	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 1	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 11 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.3 Structural wood she 3-1-0 oc purlins, ex Rigid ceiling directly bracing. (size) 1=3-1-0, Max Horiz 1=43 (LC Max Uplift 1=-8 (LC 4=-80 (L1 Max Grav 1=126 (L	y applied or 10-0-0 oc 3=3-1-0, 4=3-1-0, 5= 13), 5=43 (LC 13) 10), 3=-183 (LC 20), C 14), 5=-8 (LC 10) C 20), 3=49 (LC 14),	8) d or 9) 3-1-0 10)	This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and ar Provide mech bearing plate 1, 183 lb upli uplift at joint This truss is International R802.10.2 ar	designed in accord Residential Code nd referenced stan	or a 10.0 with any for a liv s where Il fit betw (by oth anding & uplift at ju dance w sections	other live loa e load of 20.0 a rectangle veen the botto ers) of truss t lb uplift at joi oint 4 and 8 lb ith the 2018 R502.11.1 a)psf om o int o					
FORCES TOP CHORD BOT CHORD	4=375 (LC 20), 5=126 (LC 20) ORCES (Ib) - Maximum Compression/Maximum Tension OP CHORD 1-2=-31/49, 2-3=-65/56, 2-4=-332/326												
Vasd=103 Cat. II; Ex zone and exposed ; members Lumber D 2) Truss de: only. For see Stanc or consult 3) TCLL: AS Plate DOI DOL=1.19; Cs=1.00; 4) Unbalanc design.	CE 7-16; Vult=130mpl 3mph; TCDL=6.0psf; E qp B; Enclosed; MWFF C-C Corner(3E) zone ; end vertical left and r and forces & MWFRS ODL=1.60 plate grip D0 signed for wind loads studs exposed to wind tard Industry Gable Er t qualified building des CE 7-16; Pr=20.0 psf L=1.15); Pf=20.0 psf (I 5); Is=1.0; Rough Cat Ct=1.10 ed snow loads have b	CDL=6.0psf; h=25ft; S (envelope) exterior c cantilever left and rig ight exposed;C-C for for reactions shown; DL=1.60 in the plane of the true d (normal to the face) ad Details as applicab igner as per ANSI/TP (roof LL: Lum DOL=1 .um DOL=1.15 Plate B; Fully Exp.; Ce=0.9 een considered for th	ght ss , le, I 1. .15 ;							UN TITUTE		SEA 0363	22 EER

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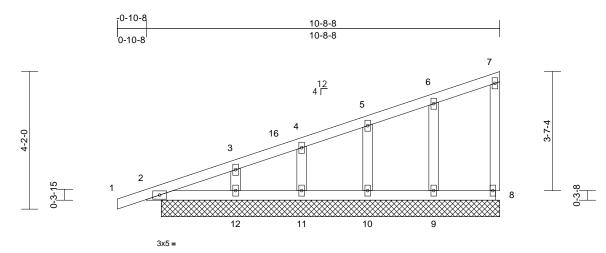
October 16,2023

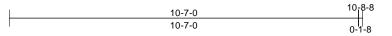
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Joł	b	Truss	Truss Type	Qty	Ply	138 Serenity	
24	020082	FGE	Monopitch Supported Gable	1	1	Job Reference (optional)	161412525

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:46 ID:_?Pus1XWS1h0GXUA82Y8iGzF_IC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:34.9

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	8/TPI2014	CSI TC BC WB Matrix-MSH	0.17 0.10 0.05	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 8	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 49 lb	GRIP 244/190 FT = 20%	
	$\begin{array}{llllllllllllllllllllllllllllllllllll$	applied or 10-0-0 oc 8=10-3-0, 9=10-3-0, 0, 11=10-3-0, 12=10- 10, 11=10-3-0, 12=10- 10, 10, 15=147 (LC 13) 10), 18=-13 (LC 11), 10), 10=-34 (LC 14) C 10), 12=-38 (LC 14) C 10) C 21), 10=214 (LC 21), C 21), 10=99 (LC 1), C 2	d or 2) 3-0, 3) 3) 3) 4) 5) 6) 7) 8) 9) 31,	Vasd=103m Cat. II; Exp E zone and C-1 2-1-8 to 7-6- cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct Unbalanced design. This truss ha load of 12.0 overhangs n All plates are Gable studs This truss ha chord live los on the bottor 3-06-00 tall b	7-16; Vult=130m 7-16; Vult=130m bit; TCDL=6.0psf; 3; Enclosed; MWI C Corner(3E) -0- 12, Corner(3E) 7- t and right expose d;C-C for membe shown; Lumber I ned for wind load ids exposed to wid ids exposed to wid is hown; Lumber I ned for wind load ids exposed to wid is been designed ad nonconcurrent mas been designed ad nonconcurrent mas been designed ad nonconcurrent mas been designed ad nonconcurrent wid other members	BCDL=6 FRS (env 10-8 to 2- 6-12 to 1 ed; end v rrs and fo DOL=1.6(s in the p ind (norm End Deta esigner a: s f (roof LL (Lum DC at B; Fully been con for great flat roof I th other li is other wi oc. for a 10. with any ed for a liv as where vill fit betw	i.Opsř, h=25ft; elope) exterio 1-8, Exterior(2 0-6-12 zone; vertical left and rcces & MWFR 0 plate grip lane of the tru al to the face) ils as applicat s per ANSI/TF 2: Lum DOL=1 DL=1.15 Plate Exp.; Ce=0.9 hsidered for the er of min roof pad of 20.0 ps ve loads. se indicated. 0 ps bottom other live load e load of 20.0 a rectangle	r 2N) d S S S S S S S S S S S S S S S S S S	trus con forc 13) Nor 14) This Inte R80 LOAD (s to bea nection es. a Standa is truss is rnationa 12.10.2 a CASE(S)	ring w is for u rd bee s desig il Resi and ref) Sta	alls due to UPLIF uplift only and dou aring condition. F ned in accordand dential Code sec ferenced standar ndard	es not consider later Review required. Se with the 2018 tions R502.11.1 and d ANSI/TPI 1.	ral d
			11	truss to bear	liTek connectors ing walls due to L s for uplift only an	JPLIFT at	t jt(s) 2. This					SEA 0363	. LAV .	

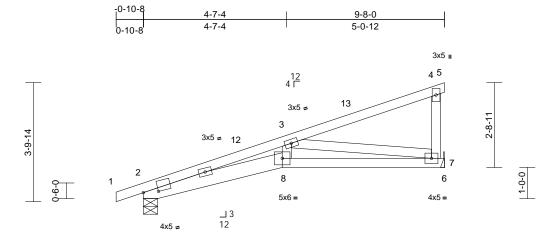
- 11) One RT8A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- WARNING Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. 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 Schut Information, purplication component of component development properties. 818 Soundside Road Edenton, NC 27932 and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

A. GI A. GIL October 16,2023

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	G	Monopitch	9	1	Job Reference (optional)	161412526

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:46 ID:Dy_JjEEKvGAptckEgqDBdczF_tK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



0-5-8	4-5-8	9-4-12	9-8-0
0-5-8	4-0-0	4-11-4	0-3-4

Scale = 1:37	
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Plate Offsets (X, Y): [2:0-5-12,0-1-0]

	(X, T). [2.0-5-12,0-1-0]	L. L											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.60 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%
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Wind: ASG Vasd=103 Cat. II; Exj zone and (1) 1-11-13 cantilever right expos for reaction DOL=1.60 2) TCLL: ASG Plate DOL DOL=1.15 Cs=1.00; 0	4-5-5 oc purlins, exit Rigid ceiling directly bracing. (size) 2=0-5-8,7 Max Horiz 2=121 (LC Max Uplift 2=-81 (LC Max Grav 2=491 (LC (lb) - Maximum Com 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 imph; TCDL=6.0psf; BK p B; Enclosed; MWFR3 C-C Exterior(2E) -0-10 3 to 6-8-0, Exterior(2E) left and right exposed sed;C-C for members a ns shown; Lumber DO) CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L i); Is=1.0; Rough Cat B	athing directly applie cept end verticals. applied or 7-11-15 o 7= Mechanical C 11) C 10), 7=-74 (LC 14) C 21), 7=524 (LC 21) ypression/Maximum I/550, 3-4=-154/35, 119 -544/1531, 6-7=0/0 460/561 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior b to 1-11-13, Interio) 6-8-0 to 9-8-0 zone; c end vertical left and and forces & MWFRS IL=1.60 plate grip roof LL: Lum DOL=1 um DOL=1.15 Plate 8; Fully Exp.; Ce=0.9;	5) d or 6) c 7) 8) 9) 10) 11) .11)	load of 12.0 overhangs n This truss ha chord live loa * This truss l on the bottor 3-06-00 tall l chord and ar Refer to gird Bearing at jc using ANSI/ designer sho Provide mec bearing plate 7. One H2.5A \$ recommendu UPLIFT at jt does not cor) This truss is International	as been designed for psf or 1.00 times fit on-concurrent with is been designed for ad nonconcurrent with has been designed for ad nonconcurrent with as been designed in chord in all areas by 2-00-00 wide will by other members. er(s) for truss to true int(s) 2 considers p IPI 1 angle to grain build verify capacity hanical connection a capable of withsta Simpson Strong-Tie ad to connect truss (s) 2. This connection sider lateral forces designed in accord Residential Code s and referenced stand Standard	at roof le other li or a 10.1 vith any for a liv s where I fit betw uss conn of bear (by oth anding 7 e conne to bear on is for. lance w sections	bad of 20.0 p ve loads. D psf bottom other live loa e load of 20. a rectangle veen the bott nections. to grain value a. Building ing surface. ers) of truss i '4 lb uplift at j ctors ing walls due r uplift only at ith the 2018 s R502.11.1 a	esf on ads. Opsf oom e to joint e to nd				SEA 0363	22 EER R. LIVI

- 2 1.15); 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)



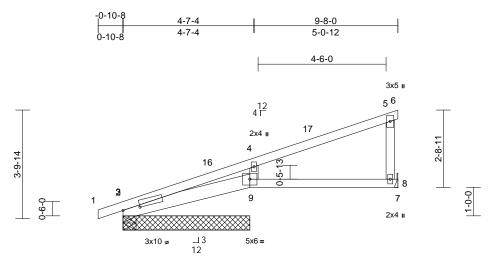
GI minimum) October 16,2023

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	GSE	Monopitch	1	1	Job Reference (optional)	161412527

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:46 ID:j7LOAWWFe1s7RV5MhJbHFGzF_qO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:40.5

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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Plate Grip DOL1Lumber DOL1Rep Stress IncrY	-0-0 .15 .15 ES RC2018/TPI2014	CSI TC BC WB Matrix-MSH	0.42 0.21 0.09	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.02 -0.03 0.00	(loc) 8-9 8-9 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 39 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x6 SP No.2 *Exce 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex	ot* 9-7:2x4 SP No.2 eathing directly applied o ccept end verticals. y applied or 6-0-0 oc	only. For s see Standa or consult o 3) TCLL: ASC Plate DOL= DOL=1.15) Cs=1.00; C	gned for wind loads tuds exposed to wir rd Industry Gable E ualified building de E 7-16; Pr=20.0 psf :1.15); Pf=20.0 psf ; Is=1.0; Rough Cat t=1.10 4 snow loads have I	nd (norm ind Deta signer a f (roof Ll (Lum DC B; Fully	al to the face) ils as applicat s per ANSI/TF .: Lum DOL=1 DL=1.15 Plate Exp.; Ce=0.9), ble, PI 1. 1.15);	Inte R80 16) Gra or ti	ernationa 02.10.2 a ophical p he orien tom choi	al Resid and ref urlin re tation o rd.	ned in accordance dential Code sec erenced standare presentation doe of the purlin alone	ce with the 2018 tions R502.11.1 and d ANSI/TPI 1. es not depict the size
REACTIONS	(size) 2=0-5-8, 9=4-5-8, Max Horiz 3=164 (L Max Uplift 2=-37 (L) 8=-24 (L) 10=-117 Max Grav 2=87 (LC	3=4-5-8, 8= Mechanical, 10=4-5-8 C 11), 10=164 (LC 11) C 10), 3=-117 (LC 10), C 14), 9=-151 (LC 14), (LC 10) 2 11), 3=332 (LC 1), 8=25 9=628 (LC 21), 10=332	load of 12.0 overhangs 6) Gable stud 7) This truss f chord live le 8) * This truss on the botto	as been designed i psf or 1.00 times f non-concurrent with s spaced at 2-0-0 o as been designed has been designed om chord in all area	lat roof I n other li c. for a 10. with any I for a liv s where	bad of 20.0 ps ve loads. D psf bottom other live load e load of 20.0 a rectangle	sf on ds.)psf					
FORCES	()	npression/Maximum	chord and a	3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.								
TOP CHORD BOT CHORD	1-2=0/17, 2-3=-149 4-5=-130/29, 5-6=-8 3-9=-634/472, 8-9=	3/0, 5-8=-202/109	capacity of 565 psi.	e assumed to be: J 565 psi, Joint 2 SP der(s) for truss to tr	No.2 cru	ushing capacit					THCA	ROUT
WEBS	4-9=-475/292		11) Bearing at	oint(s) 3, 9, 2, 3 co	nsiders p	parallel to grai				A	OHEES	in Aller
Vasd=103 Cat. II; Ex zone and (1) 1-11-1 cantilever right expo	C-C Exterior(2E) -0-1 3 to 6-8-0, Exterior(2E left and right exposed sed;C-C for members	CDL=6.0psf; h=25ft; (envelope) exterior 0-8 to 1-11-13, Interior (c) 6-8-0 to 9-8-0 zone; (c) end vertical left and and forces & MWFRS	designer sh 12) Provide me bearing pla	ANSI/TPI 1 angle to ould verify capacity chanical connection te capable of withst uplift at joint 2.	of bear (by oth	ing surface. ers) of truss to	0		A HILLING	it	SEA 0363	• •
for reactio DOL=1.60	ns shown; Lumber D()	DL=1.60 plate grip		MiTek connectors r ring walls due to U			ect			in the	AC AGIN	EERALIUN

- (1) 1-11-13 to 6-8-0, Exterior(2E) 6-8-0 to 9-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 14) One RT8A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.

818 Soundside Road Edenton, NC 27932

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11111111 October 16,2023

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Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	V1	Valley	1	1	Job Reference (optional)	l61412528

Loading

TCDL

BCLL

BCDL

OTHERS

FORCES

WEBS

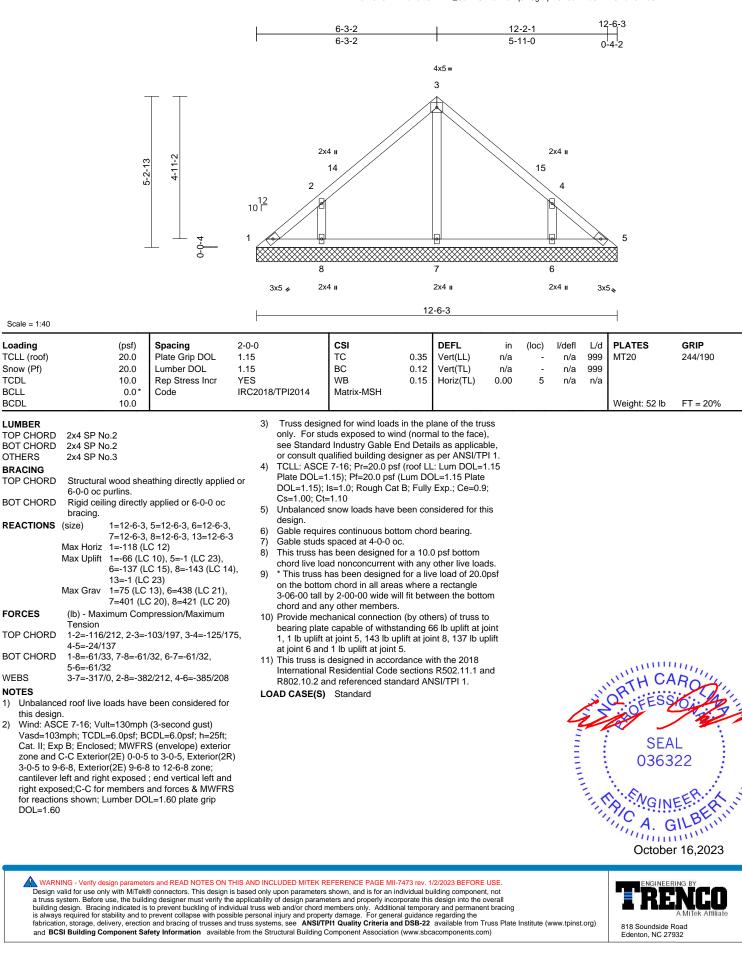
NOTES

1)

2)

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:46 ID:F?srD3E8Afz2EulzeZOMFizF_Uo-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



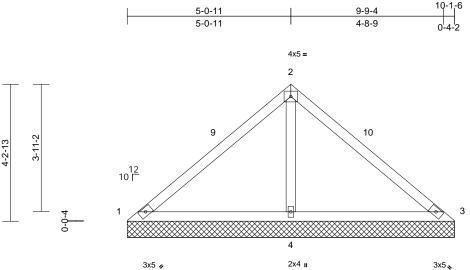
Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	V2	Valley	1	1	Job Reference (optional)	161412529

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:47 ID:jCQDRPFmxy5us2K9CGvbovzF_Un-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



2 10





10-1-6

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 IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.50 0.47 0.21	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: 39 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	10-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=10-1-6 Max Horiz 1=-95 (LC Max Uplift 1=-62 (LC 4=-119 (L Max Grav 1=92 (LC 21) (lb) - Maximum Com Tension	C 21), 3=-62 (LC 20), C 14) 20), 3=92 (LC 21), 4 npression/Maximum -126/409	6 7 8 9 =833 1 1	 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, 62 lb upliff This truss is International 	snow loads have b es continuous bott spaced at 4-0-0 or is been designed n chord in all area: by 2-00-00 wide wi yy other members. hanical connectior capable of withst at joint 3 and 119 designed in accord Residential Code nd referenced star	Lum DC B; Fully been cor om chor c. or a 10.0 vith any for a liv s where Il fit betv (by oth anding 6 Ib uplift dance w sections	DL=1.15 Plate Exp.; Ce=0.9 nsidered for the d bearing. 0 psf bottom other live loa re load of 20.1 a rectangle veen the bottw ers) of truss t 32 lb uplift at j at joint 4. ith the 2018 \$ R502.11.1 a	ds. Dpsf om o oint					
NOTES 1) Unbalance this design	ed roof live loads have n.	been considered for											in the

- Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 7-1-11, Exterior(2E) 7-1-11 to 10-1-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 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.

WITTER CONTRACTOR WITTER PARTY SEAL 036322 G 11111111 October 16,2023

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818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	V3	Valley	1	1	Job Reference (optional)	161412530

3-10-5

3-10-5

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

3-2-13

(psf)

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:47 ID:_PCt1VqtCUIRorSEgzcdUCzF_Jj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4x5 =

7-4-8

3-6-3



GRIP

244/190

FT = 20%

2 9 10 Ņ 2-1 12 10 ∟ 3 0-0-4 4 2x4 🛛 3x5 🍫 3x5 💊 7-8-10 CSI DEFL Spacing 2-0-0 (loc) l/defl L/d PLATES in n/a 999 MT20 999 n/a 4 n/a n/a Weight: 29 lb LOAD CASE(S) Standard



Loading

TCLL (roof)		20.0	Plate Grip DOL	1.15		тс	0.30	Vert(LL)	n/a	-
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.30	Vert(TL)	n/a	-
TCDL		10.0	Rep Stress Incr	YES		WB	0.10	Horiz(TL)	0.00	4
BCLL		0.0*	Code	IRC20	18/TPI2014	Matrix-MP				
BCDL		10.0								
LUMBER					4) TCLL: ASCI	E 7-16; Pr=20.0	psf (roof Ll	L: Lum DOL=	1.15	
TOP CHORD	2x4 SP N	0.2				1.15); Pf=20.0 p				
BOT CHORD	2x4 SP N	o.2			DOL=1.15);	Is=1.0; Rough C	Cat B; Fully	Exp.; Ce=0.9	9;	
OTHERS	2x4 SP N	0.3			Cs=1.00; Ct					
BRACING				:	,	snow loads hav	e been co	nsidered for th	nis	
TOP CHORD	Structura	wood she	athing directly applie	ed or	design. 6) Gable requi	res continuous b				
	7-8-10 oc	purlins.								
BOT CHORD	Rigid ceil	ing directly	applied or 6-0-0 oc		,	spaced at 4-0-0		0		
	bracing.			i		as been designe ad nonconcurre			do	
REACTIONS	· · /	,	3=7-8-10, 4=7-8-10) ,		has been design				
	Max Horiz	· ·	,			m chord in all ar			0001	
	Max Uplift		21), 3=-27 (LC 20)	,		by 2-00-00 wide			om	
		4=-84 (LC				ny other membe				
	Max Grav		C 20), 3=105 (LC 21), .	10) Provide med	chanical connect	tion (by oth	ers) of truss t	to	
	<i></i>	4=588 (LC	,		bearing plat	e capable of with	nstanding 2	27 lb uplift at j	joint	
FORCES		imum Com	pression/Maximum			ft at joint 3 and 8				
	Tension		100/000			designed in acc				
TOP CHORD BOT CHORD		′260, 2-3=- ′164, 3-4=-′				I Residential Co			and	
WEBS	2-4=-179/	,	1/3/104			and referenced s	tandard Al	NSI/TPI 1.		
VVEDO	2-4=-421/	220			_OAD CASE(S)	Standard				

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 4-8-14, Exterior(2E) 4-8-14 to 7-8-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 3) only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

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G 11111111 October 16,2023

SEAL

036322

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	V4	Valley	1	1	Job Reference (optional)	161412531

1-11-2

0-0-C

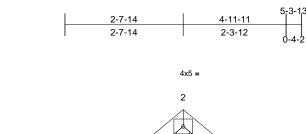
2-2-13

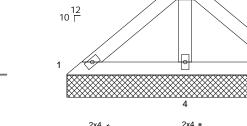
Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:47 ID:_PCt1VqtCUIRorSEgzcdUCzF_Jj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

3

2x4 💊

Page: 1







5-3-13

Scale = 1:25.9 _

Loading (psf) TCLL (roof) 20.0 Snow (Pf) 20.0 TCDL 10.0 BCLL 0.0* BCDL 10.0	Spacing2-0Plate Grip DOL1.1Lumber DOL1.1Rep Stress IncrYECodeIRC	5 5 S C2018/TPI2014	CSI TC 0. BC 0. WB 0. Matrix-MP	13 Vert(TL))4 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: 19 lb	GRIP 244/190 FT = 20%
TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 OTHERS 2x4 SP No.3 BRACING TOP CHORD Structural wood she 5-3-13 oc purlins. BOT CHORD Rigid ceiling directly bracing. REACTIONS (size) 1=5-3-13, Max Horiz 1=-48 (LC Max Uplift 3=-6 (LC	3=5-3-13, 4=5-3-13 ; 12) 15), 4=-40 (LC 14) 20), 3=93 (LC 21), 4=336 apression/Maximum 5/124 4/101 been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and right ght exposed;C-C for for reactions shown; bL=1.60 n the plane of the truss I (normal to the face), d Details as applicable, gner as per ANSI/TPI 1. toof LL: Lum DOL=1.15 um DOL=1.15 Plate	 design. 6) Gable requir 7) Gable studs 8) This truss ha chord live loc 9) * This truss h on the bottor 3-06-00 tall h chord and ar 10) Provide mec bearing plate and 40 lb up 11) This truss is International 	es continuous bottom o spaced at 4-0-0 oc. as been designed for a ad nonconcurrent with a has been designed for a n chord in all areas wh by 2-00-00 wide will fit by other members. hanical connection (by a capable of withstandir lift at joint 4. designed in accordanc Residential Code secti nd referenced standard	hord bearing. 10.0 psf bottom iny other live load live load of 20.0 pre a rectangle etween the botto others) of truss to g 6 lb uplift at jours with the 2018 ons R502.11.1 a	ids. Dpsf om to int 3				SEA 0363	EER HR

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

A. GIL October 16,2023

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	V5	Valley	1	1	Job Reference (optional)	l61412532

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:47 ID:yvQIJ7HG7Iv1hWYdmKf4S6zF_A5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2-8-11

1-2-4

3x5 =



3 2x4 🍬 2x4 💊

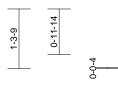
Scale = 1:25.1

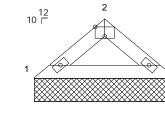
Plate Offsets (X, Y): [2:0-2-8,Edge]

Loading (psf) TCLL (roof) 20.0 Snow (Pf) 20.0 TCDL 10.0 BCLL 0.0* BCDL 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	0.07 0.07 0.00	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 9 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 BRACING TOP CHORD Structural wood shea 3-0-13 oc purlins. BOT CHORD Rigid ceiling directly bracing. REACTIONS (Size) 1=3-0-13, Max Horiz 1=-26 (LC Max Uplift 1=-10 (LC Max Grav 1=141 (LC FORCES (b) - Maximum Com Tension TOP CHORD 1-2=-178/73, 2-3=-17 BOT CHORD 1-3=-42/129 NOTES 1) Unbalanced roof live loads have this design. 2) Wind: ASCE 7-16; Vult=130mph Vasd=103mph; TCDL=6.0psf; BC Cat. II; Exp B; Enclosed; MWFRS 1 Lumber DOL=1.60 plate grip DO 3) Truss designed for wind loads in only. For studs exposed to wind see Standard Industry Gable Enc or consult qualified building desig 4) TCLL: ASCE 7-16; Pr=20.0 psf (L DOL=1.15); Is=1.0; Rough Cat B Cs=1.00; Ct=1.10 5) Unbalanced snow loads have be design. 6) Gable requires continuous bottor	3=3-0-13 12) 14), 3=-10 (LC 15) 20), 3=141 (LC 21) pression/Maximum 78/73 been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and rig ght exposed;C-C for for reactions shown; L=1.60 n the plane of the truss (normal to the face), d Details as applicable gner as per ANSI/TPI roof LL: Lum DOL=1.1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for this	 8) This truss ha chord live lo: 9) * This truss 1 on the botton 3-06-00 tall i chord and at 10) Provide mee bearing plate 1 and 10 lb u 11) This truss is International R802.10.2 a LOAD CASE(S) 	spaced at 4-0-0 oc as been designed fo ad nonconcurrent w has been designed n chord in all areas by 2-00-00 wide wil y other members. chanical connection e capable of withsta uplift at joint 3. designed in accorc Residential Codes and referenced stan Standard	or a 10. vith any for a liv where I fit betw (by oth anding 1 dance w sections	other live loa e load of 20.0 a rectangle veen the both ers) of truss t 0 lb uplift at j ith the 2018 s R502.11.1 a	Opsf om to joint				SEA 0363	EER ALU
										1	

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1-6-6

1-6-6

3-0-13

Job	Truss	Truss Type	Qty	Ply	138 Serenity	
24020082	V11	Valley	1	1	Job Reference (optional)	l61412533

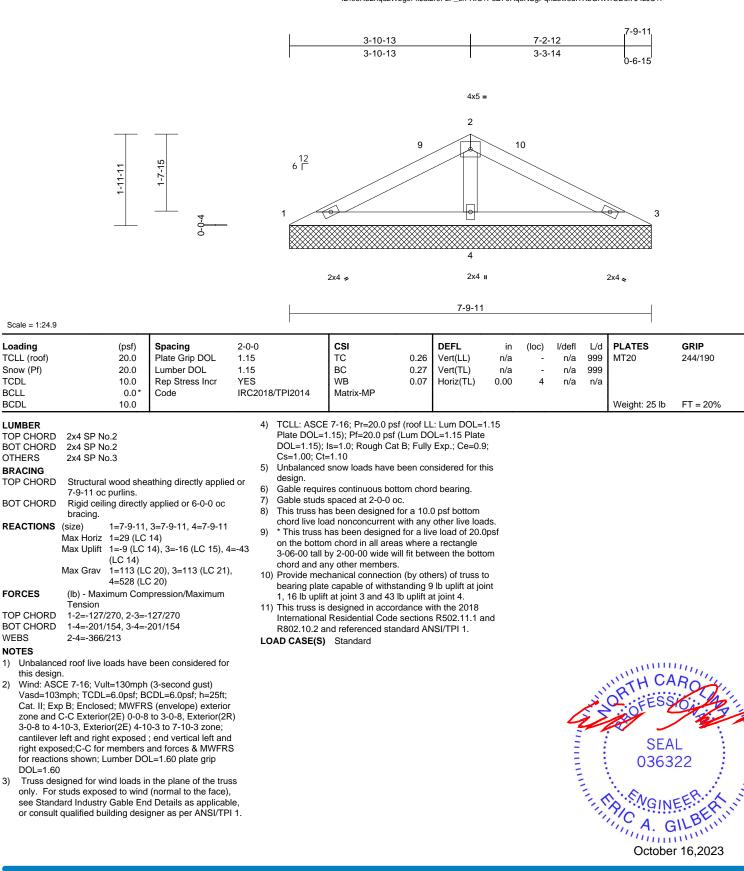
1)

2)

3)

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:48 ID:05Rb2nqdzWbg0FxJai2r9FzF_oh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







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

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	138 Serenity		
24020082	V12	Valley	1	1	Job Reference (optional)	l61412534	

0-11-15

1-3-11

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:48 ID:OFXJJBg5e0puLYiHs6bBoUzF_ZP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-11-14

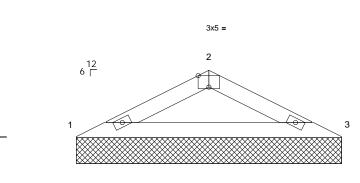


'): [2:0-2-8,Edge] (psf) Spacing 2-0-0 CSI DEFL in (loc) 20.0 Plate Grip DOL 1.15 тс 0.22 Vert(LL) n/a 20.0 Lumber DOL 1.15 BC 0.18 Vert(TL) n/a 10.0 Rep Stress Incr YES WB 0.00 Horiz(TL) 0.01 0.0 Code IRC2018/TPI2014 Matrix-MP 10.0 7) Gable studs spaced at 2x4 SP No.2 This truss has been des 8) 2x4 SP No.2 chord live load noncond 9) * This truss has been de on the bottom chord in Structural wood sheathing directly applied or 3-06-00 tall by 2-00-00 5-1-11 oc purlins. chord and any other me Rigid ceiling directly applied or 10-0-0 oc 10) Provide mechanical cor bearing plate capable of 1=5-1-11, 3=5-1-11 1 and 20 lb uplift at joint Max Horiz 1=18 (LC 14) 11) This truss is designed i Max Uplift 1=-20 (LC 14), 3=-20 (LC 15) International Residentia Max Grav 1=237 (LC 20), 3=237 (LC 21) R802.10.2 and reference (Ib) - Maximum Compression/Maximum LOAD CASE(S) Standard 1-2=-419/183, 2-3=-419/183 1-3=-150/364 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) 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.
- 6) Gable requires continuous bottom chord bearing.

5-1-11 2-6-13 4-6-12





5-1-11

2x4 🍃

2-6-13

2x4 👟

l/defl

n/a 999

n/a 999

n/a n/a

3

L/d

PLATES

Weight: 14 lb

MT20

GRIP

244/190

FT = 20%

Scale	Scale = $1:22.3$				
Plate	Offsets	(X.	١		

Loading

TCLL (roof)

Snow (Pf)

LUMBER

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

NOTES

1)

TOP CHORD

BOT CHORD

REACTIONS (size)

bracing.

Tension

TCDL

BCLL

BCDL

t 4-0-0 oc. esigned for a 10.0 psf bottom ncurrent with any other live loads. designed for a live load of 20.0psf a lal areas where a rectangle 0 wide will fit between the bottom nembers. onnection (by others) of truss to of withstanding 20 lb uplift at joint nt 3. in accordance with the 2018 ial Code sections R502.11.1 and nced standard ANSI/TPI 1. 'd	SEAL 036322 VGINEEER October 16,2023
PAGE MII-7473 rev. 1/2/2023 BEFORE USE. is for an individual building component, not operly incorporate this design into the overall	TRENCO

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