ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 24070208-01
1 Serenity-Roof-B330 E COP TMB BNS 4 GLH

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

Pages or sheets covered by this seal: I67463796 thru I67463838

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

North Carolina COA: C-0844

August 13,2024

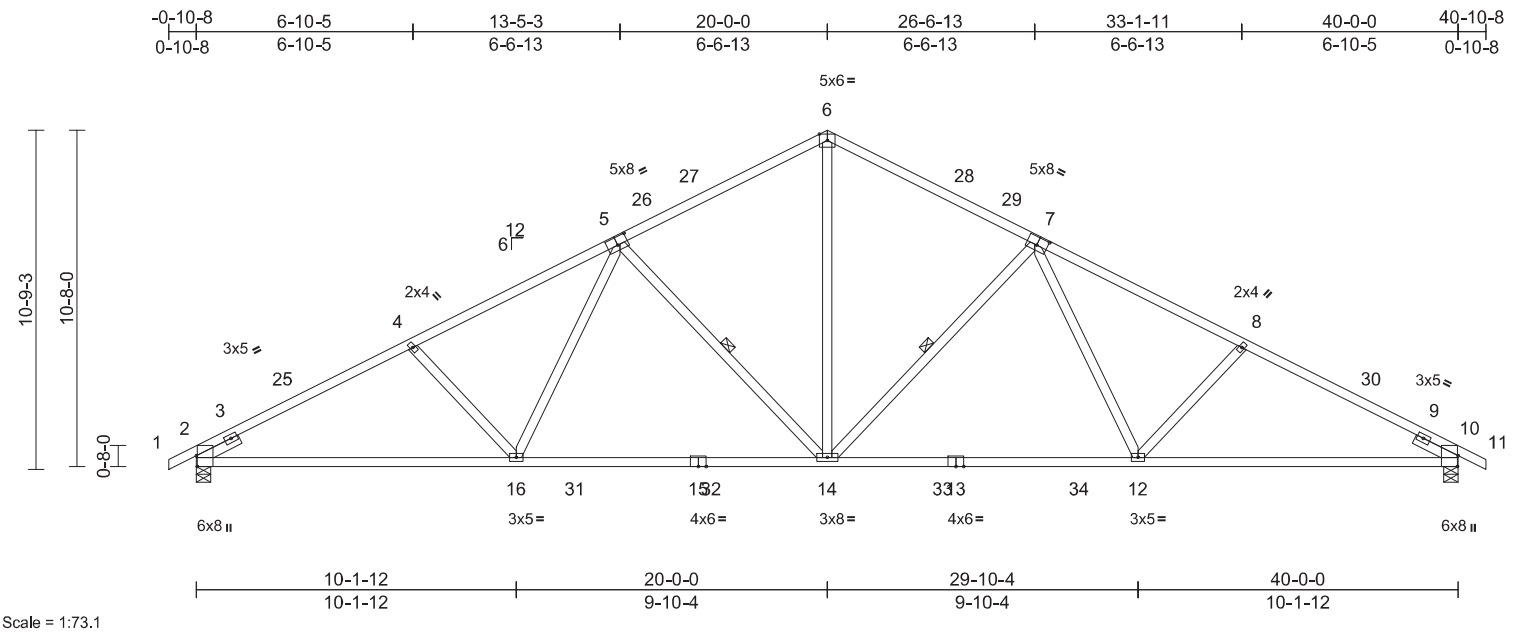
Gagan, Iqbal

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

Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	A	Common	4	1	I67463796 Job Reference (optional)

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

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 14:29:53 ID:CttcSzQgwNcSj9X9hY?FsHzF_uO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:73.1

Plate Offsets (X, Y): [2:0-4-1,Edge], [5:0-4-0,0-3-0], [7:0-4-0,0-3-0], [10:0-4-1,Edge]

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	0.87	Vert(LL)	-0.37	14-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.64	14-16	>754	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.15	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 213 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 14-6:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

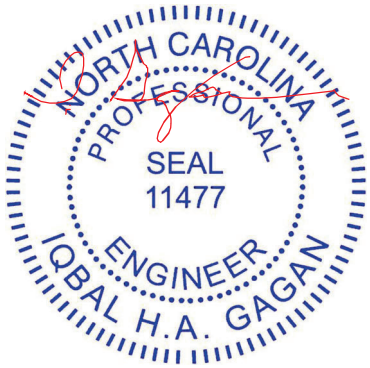
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 7-14, 5-14

REACTIONS (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=165 (LC 18)
Max Uplift 2=-170 (LC 14), 10=-170 (LC 15)
Max Grav 2=1809 (LC 3), 10=1809 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-4=-3431/320, 4-6=-3226/333, 6-8=-3226/333, 8-10=-3431/320, 10-11=0/23
BOT CHORD 2-16=-330/2978, 14-16=-191/2524, 12-14=-108/2524, 10-12=-185/2978
WEBS 6-14=-114/1658, 7-14=-853/247, 7-12=-25/626, 8-12=-301/191, 5-14=-853/247, 5-16=-25/626, 4-16=-301/191

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 3-1-6, Interior (1) 3-1-6 to 16-0-2, Exterior(2R) 16-0-2 to 23-11-14, Interior (1) 23-11-14 to 36-10-10, Exterior(2E) 36-10-10 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
9) 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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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	AGE	Common Supported Gable	1	1	I67463797 Job Reference (optional)

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

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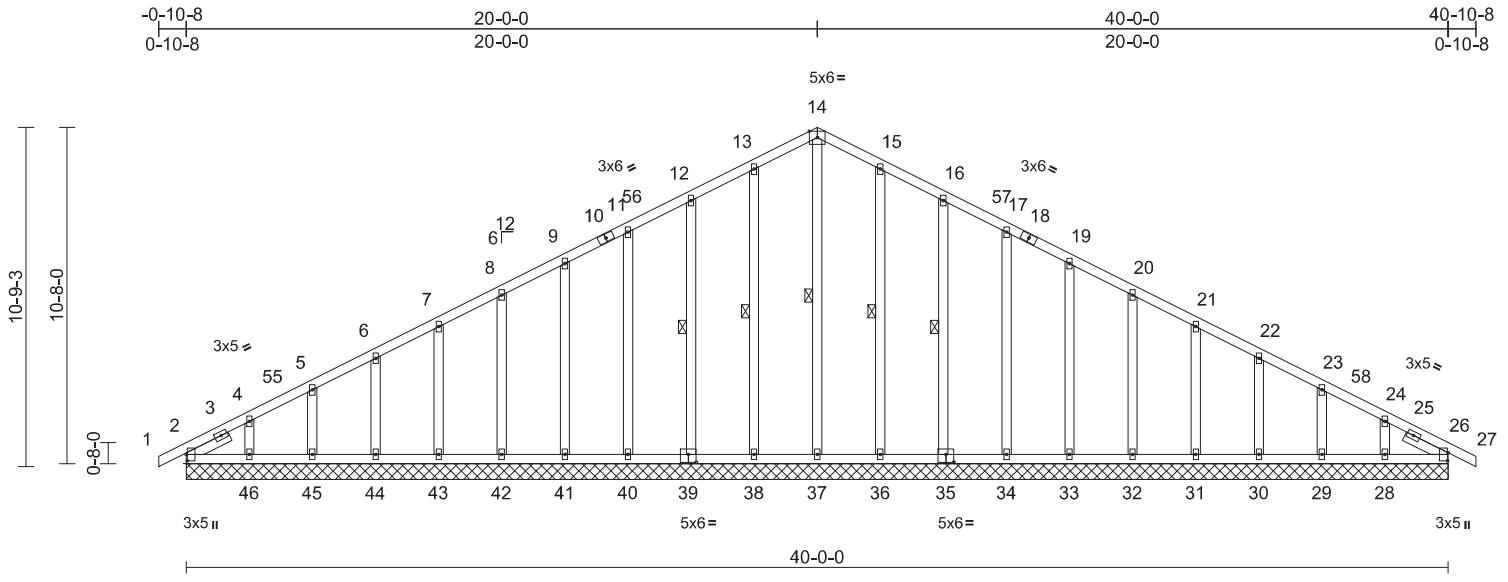

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Plate Offsets (X, Y): [2:0-2-8,0-0-5], [26:0-3-1,0-0-5], [35:0-3-0,0-3-0], [39:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	26	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 286 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3 *Except* 37-14:2x4 SP No.2
SLIDER	Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 14-37, 13-38, 12-39, 15-36, 16-35

REACTIONS (size) 2=40-0-0, 26=40-0-0, 28=40-0-0, 29=40-0-0, 30=40-0-0, 31=40-0-0, 32=40-0-0, 33=40-0-0, 34=40-0-0, 35=40-0-0, 36=40-0-0, 37=40-0-0, 38=40-0-0, 39=40-0-0, 40=40-0-0, 41=40-0-0, 42=40-0-0, 43=40-0-0, 44=40-0-0, 45=40-0-0, 46=40-0-0, 47=40-0-0, 51=40-0-0

Max Horiz 2=165 (LC 14), 47=165 (LC 14)

Max Uplift 2=-21 (LC 10), 28=-80 (LC 15), 29=-36 (LC 15), 30=-46 (LC 15), 31=-43 (LC 15), 32=-44 (LC 15), 33=-44 (LC 15), 34=-44 (LC 15), 35=-48 (LC 15), 36=-35 (LC 15), 38=-39 (LC 14), 39=-47 (LC 14), 40=-44 (LC 14), 41=-43 (LC 14), 42=-44 (LC 14), 43=-43 (LC 14), 44=-46 (LC 14), 45=-33 (LC 14), 46=-96 (LC 14), 47=-21 (LC 10)

Max Grav 2=162 (LC 27), 26=139 (LC 1), 28=161 (LC 37), 29=160 (LC 1), 30=160 (LC 37), 31=160 (LC 1), 32=161 (LC 22), 33=160 (LC 37), 34=179 (LC 22), 35=233 (LC 22), 36=247 (LC 22), 37=200 (LC 28), 38=247 (LC 21), 39=233 (LC 21), 40=179 (LC 21), 41=160 (LC 36), 42=161 (LC 21), 43=160 (LC 1), 44=160 (LC 36), 45=160 (LC 1), 46=161 (LC 36), 47=162 (LC 27), 51=139 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

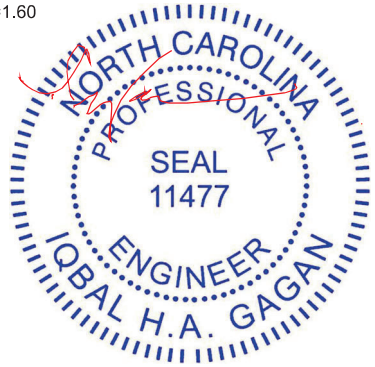
TOP CHORD 1-2=0/23, 2-4=-216/79, 4-5=-167/82, 5-6=-129/94, 6-7=-96/108, 7-8=-74/131, 8-9=-62/154, 9-11=-72/178, 11-12=-85/222, 12-13=-104/271, 13-14=-121/311, 14-15=-121/311, 15-16=-104/271, 16-17=-85/222, 17-19=-72/177, 19-20=-60/132, 20-21=-48/86, 21-22=-44/41, 22-23=-66/27, 23-24=-99/35, 24-26=-144/59, 26-27=0/23

BOT CHORD 2-46=-44/167, 45-46=-44/167, 44-45=-44/167, 43-44=-44/167, 42-43=-44/167, 41-42=-44/167, 40-41=-44/167, 38-40=-44/167, 37-38=-44/166, 36-37=-44/166, 34-36=-44/167, 33-34=-44/167, 32-33=-44/167, 31-32=-44/167, 30-31=-44/167, 29-30=-44/167, 28-29=-44/167, 26-28=-44/167

WEBS 14-37=-205/45, 13-38=-205/66, 12-39=-193/83, 11-40=-140/76, 9-41=-126/77, 8-42=-126/77, 7-43=-126/77, 6-44=-127/77, 5-45=-126/80, 4-46=-131/135, 15-36=-205/66, 16-35=-193/83, 17-34=-140/76, 19-33=-126/77, 20-32=-126/77, 21-31=-126/77, 22-30=-127/77, 23-29=-126/80, 24-28=-131/135

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 3-1-6, Exterior(2N) 3-1-6 to 16-0-0, Corner(3R) 16-0-0 to 24-0-0, Exterior(2N) 24-0-0 to 36-10-10, Corner(3E) 36-10-10 to 40-10-8 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



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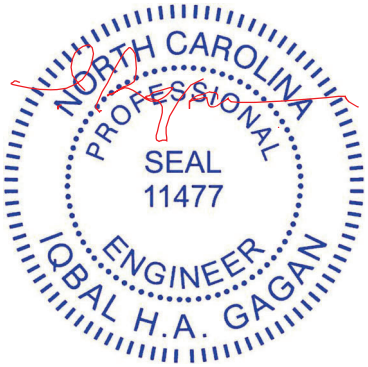
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf 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, 44 lb uplift at joint 40, 43 lb uplift at joint 41, 44 lb uplift at joint 42, 43 lb uplift at joint 43, 46 lb uplift at joint 44, 33 lb uplift at joint 45, 96 lb uplift at joint 46, 35 lb uplift at joint 36, 48 lb uplift at joint 35, 44 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, 36 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



August 13,2024

Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	B	Attic	3	1	I67463798 Job Reference (optional)

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

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 14:29:54 Page: 1

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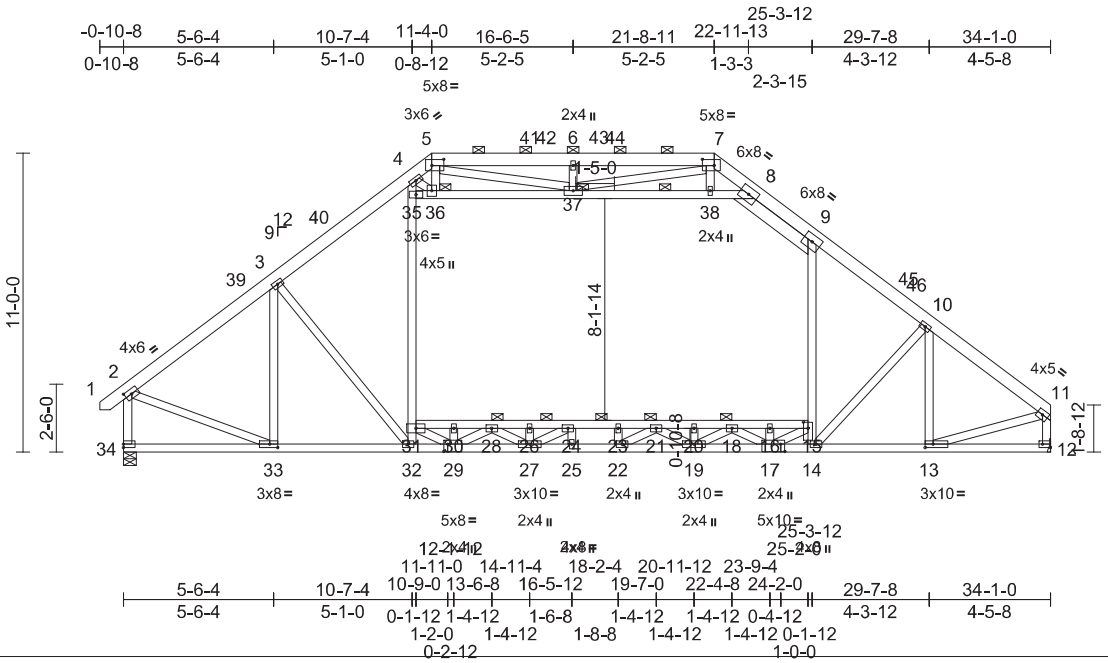


Scale = 1:84.9

Plate Offsets (X, Y): [2:0-2-14,0-2-0], [5:0-5-4,0-2-12], [7:0-5-4,0-2-12], [12:Edge,0-1-8], [13:0-3-8,0-1-8], [15:0-2-12,0-2-0], [17:0-1-12,0-3-4], [29:0-1-12,0-3-4], [33:0-3-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.36	14-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.58	18	>700	180		
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.09	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH		Attic	-0.28	15-31	>634	360		
BCDL	10.0										Weight: 318 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2 *Except* 7-11:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SP No.2 *Except* 34-29:2x4 SP No.1, 29-17:2x4 SP 2400F 2.0E

WEBS 2x4 SP No.3 *Except* 4-32:2x4 SP No.1, 35-8:2x4 SP No.2, 8-9:2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-5-12 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-3 max.): 5-7.

BOT CHORD Rigid ceiling directly applied or 2-9-13 oc bracing.

WEBS 1 Row at midpt 8-37

JOINTS 1 Brace at Jt(s): 18, 28, 21, 36, 37

REACTIONS (size) 12= Mechanical, 34=0-5-8
Max Horiz 34=-279 (LC 12)
Max Grav 12=2105 (LC 48), 34=2065 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension

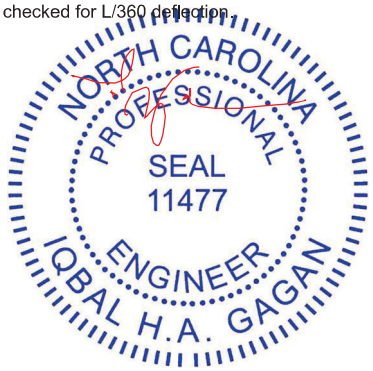
TOP CHORD 1-2=0/30, 2-3=-2330/0, 3-4=-2558/0, 4-5=-1481/111, 5-6=-1802/463, 6-7=-1802/463, 7-8=-992/318, 8-9=-2077/32, 9-10=-2859/0, 10-11=-2661/0, 2-34=-2239/0, 11-12=-2314/0

BOT CHORD 33-34=-240/279, 32-33=0/1785, 27-32=-20/3439, 25-27=0/4934, 22-25=0/4934, 19-22=0/4877, 14-19=0/3928, 13-14=0/2123, 12-13=-9/67, 30-31=-847/123, 28-30=-847/123, 26-28=-2746/0, 24-26=-2746/0, 23-24=-3399/0, 21-23=-3399/0, 20-21=-2965/0, 18-20=-2965/0, 16-18=-1309/0, 15-16=-1309/0

WEBS 3-33=-656/5, 3-32=-108/491, 31-32=-80/229, 31-35=0/944, 4-35=0/919, 14-15=-32/229, 9-15=0/1054, 35-36=-528/160, 36-37=-1402/182, 37-38=-1857/0, 8-38=-1881/0, 2-33=0/1812, 11-13=0/2167, 15-17=0/1511, 29-31=0/1357, 16-17=-178/0, 29-30=-197/0, 17-18=-1128/0, 28-29=-1246/0, 18-19=0/862, 27-28=0/996, 19-20=-140/0, 26-27=-122/0, 19-21=-445/0, 24-27=-750/0, 21-22=-100/115, 24-25=0/116, 22-23=-76/32, 10-13=-580/0, 10-14=-316/274, 5-36=-32/986, 5-37=-643/885, 6-37=-441/121, 7-38=0/252, 7-37=-446/1083, 4-36=-1294/62

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-4 to 2-11-4, Interior (1) 2-11-4 to 7-8-8, Exterior(2R) 7-8-8 to 14-11-8, Interior (1) 14-11-8 to 18-1-3, Exterior(2R) 18-1-3 to 25-3-12, Interior (1) 25-3-12 to 30-3-12, Exterior(2E) 30-3-12 to 33-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide adequate drainage to prevent water ponding.
7) All plates are 3x5 MT20 unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Ceiling dead load (5.0 psf) on member(s). 8-9, 35-36, 36-37, 37-38, 8-38; Wall dead load (5.0psf) on member (s).31-35, 9-15
11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 30-31, 28-30, 26-28, 24-26, 23-24, 21-23, 20-21, 18-20, 16-18, 15-16
12) Refer to girder(s) for truss to truss connections.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
15) Attic room checked for L/360 deflection.



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Continued on page 2

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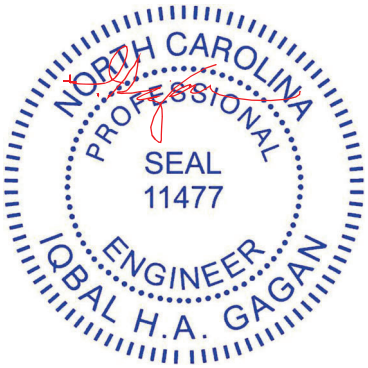
Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	B	Attic	3	1	I67463798 Job Reference (optional)

LOAD CASE(S) Standard



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	B1	Piggyback Base	1	1	I67463799 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 14:29:55 Page: 1
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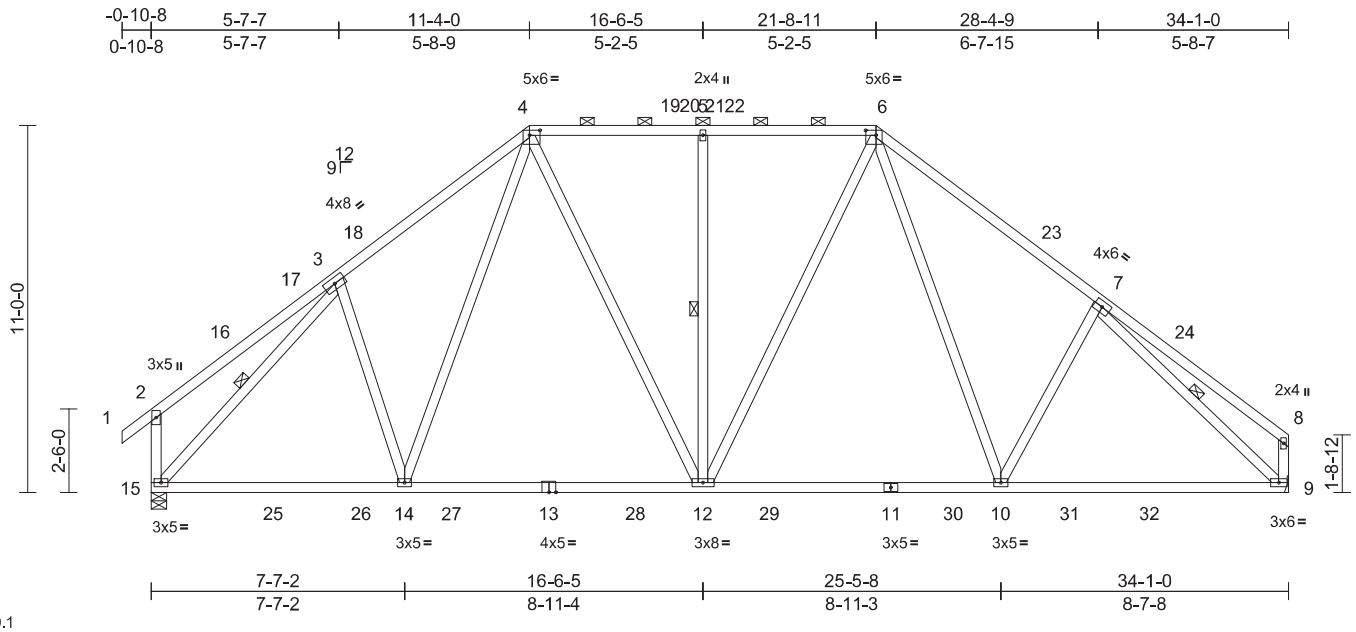


Scale = 1:69.1

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

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	0.89	Vert(LL)	-0.20	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.33	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.07	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 242 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-8:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 14-4,12-4,12-5,12-6,10-6:2x4 SP No.2

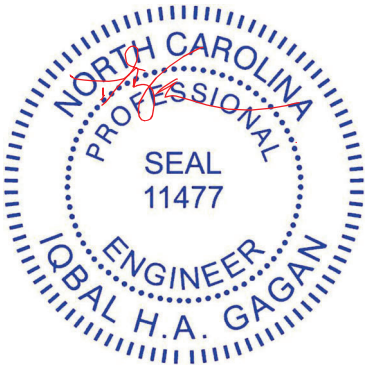
BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-5-4 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing, Except: 10-0-0 oc bracing: 14-15.
WEBS 1 Row at midpt 3-15, 7-9, 5-12

REACTIONS (size) 9= Mechanical, 15=0-5-8
Max Horiz 15=-283 (LC 12)
Max Uplift 9=-127 (LC 15), 15=-139 (LC 14)
Max Grav 9=1617 (LC 47), 15=1680 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-228/123, 3-4=-1911/287, 4-5=-1537/266, 5-6=-1537/266, 6-7=-2064/283, 7-8=-261/100, 2-15=-290/136, 8-9=-248/86
BOT CHORD 14-15=-175/1361, 12-14=-121/1232, 10-12=-28/1288, 9-10=-92/1543
WEBS 3-15=-1919/111, 7-9=-2016/118, 4-14=-118/464, 3-14=-106/339, 4-12=-121/554, 5-12=-562/154, 6-12=-132/450, 6-10=-108/600, 7-10=-221/245

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-6-6, Interior (1) 2-6-6 to 6-6-3, Exterior(2R) 6-6-3 to 16-1-13, Interior (1) 16-1-13 to 16-10-13, Exterior(2R) 16-10-13 to 26-6-8, Interior (1) 26-6-8 to 30-6-6, Exterior(2E) 30-6-6 to 33-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 9.
11) 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.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



August 13,2024

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Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	B1GE	Piggyback Base Supported Gable	1	1	I67463800 Job Reference (optional)

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

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 14:29:55 Page: 1
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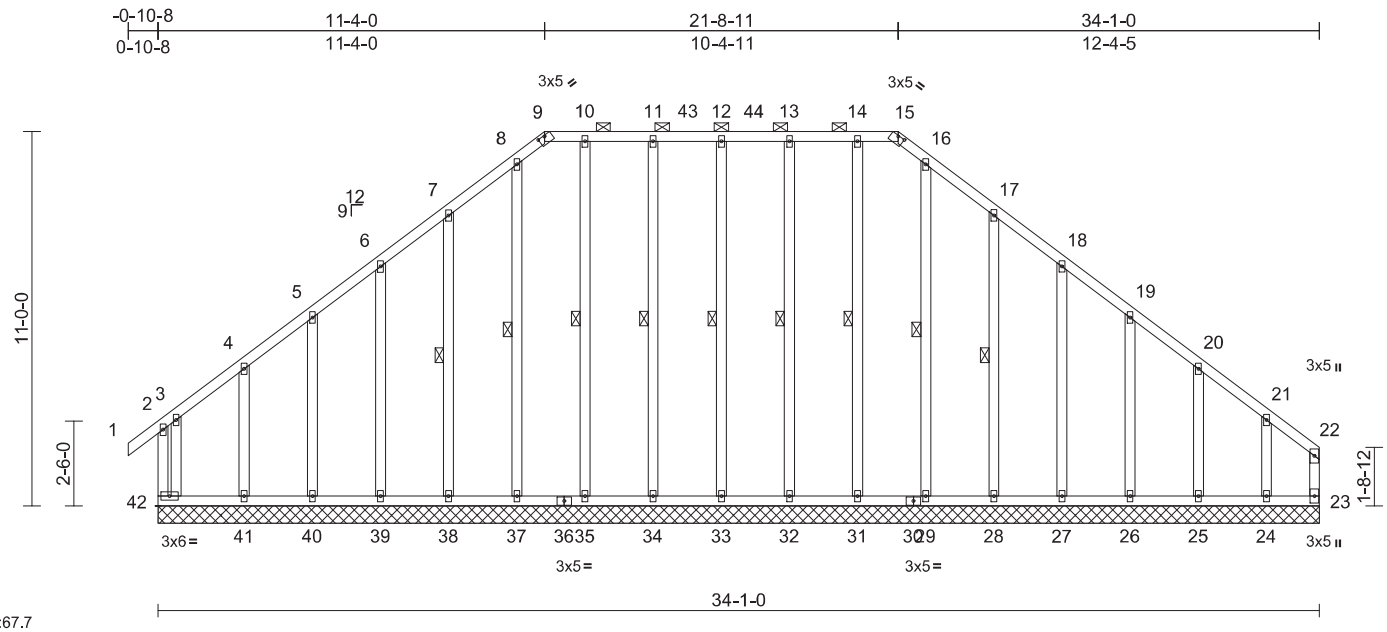


Scale = 1:67.7

Plate Offsets (X, Y): [9:0-2-8,0-0-5], [15:0-2-8,0-0-5]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	-0.01	23	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 304 lb	FT = 20%

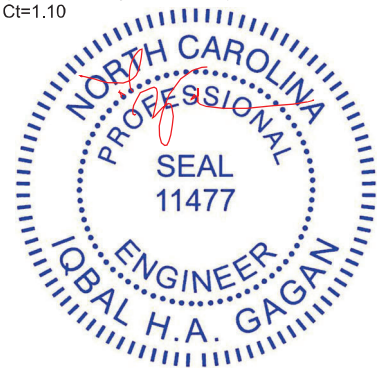
LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3 *Except*
33-12,32-13,31-14,34-11,35-10:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-15.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 12-33, 13-32, 14-31, 16-29, 17-28, 11-34, 10-35, 8-37, 7-38

REACTIONS (size) 23=34-1-0, 24=34-1-0, 25=34-1-0, 26=34-1-0, 27=34-1-0, 28=34-1-0, 29=34-1-0, 31=34-1-0, 32=34-1-0, 33=34-1-0, 34=34-1-0, 35=34-1-0, 37=34-1-0, 38=34-1-0, 39=34-1-0, 40=34-1-0, 41=34-1-0, 42=34-1-0
Max Horiz 42=-283 (LC 12)
Max Uplift 23=-262 (LC 11), 24=-239 (LC 10), 25=-46 (LC 15), 26=-72 (LC 15), 27=-62 (LC 15), 28=-92 (LC 15), 31=-4 (LC 10), 32=-36 (LC 11), 33=-24 (LC 10), 34=-34 (LC 11), 38=-92 (LC 14), 39=-69 (LC 14), 40=-36 (LC 14), 41=-187 (LC 11), 42=-138 (LC 10)
Max Grav 23=309 (LC 12), 24=332 (LC 13), 25=164 (LC 1), 26=203 (LC 53), 27=233 (LC 41), 28=234 (LC 41), 29=212 (LC 55), 31=221 (LC 40), 32=231 (LC 40), 33=229 (LC 40), 34=231 (LC 40), 35=221 (LC 40), 37=205 (LC 57), 38=234 (LC 41), 39=234 (LC 51), 40=192 (LC 41), 41=310 (LC 25), 42=253 (LC 53)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-42=-345/308, 1-2=0/37, 2-3=-186/179, 3-4=-155/154, 4-5=-94/145, 5-6=-131/191, 6-7=-160/254, 7-8=-206/335, 8-9=-186/294, 9-10=-176/299, 10-11=-176/299, 11-12=-176/299, 12-13=-176/299, 13-14=-176/299, 14-15=-176/299, 15-16=-186/294, 16-17=-206/335, 17-18=-160/254, 18-19=-135/212, 19-20=-148/173, 20-21=-158/155, 21-22=-230/215, 22-23=-196/170
BOT CHORD 41-42=-165/165, 40-41=-165/165, 39-40=-165/165, 38-39=-165/165, 37-38=-165/165, 35-37=-165/165, 34-35=-165/165, 33-34=-165/165, 32-33=-165/165, 31-32=-165/165, 29-31=-165/165, 28-29=-165/165, 27-28=-165/165, 26-27=-165/165, 25-26=-165/165, 24-25=-165/165, 23-24=-165/165
WEBS 12-33=-189/48, 13-32=-194/70, 14-31=-181/29, 16-29=-172/20, 17-28=-215/116, 18-27=-199/87, 19-26=-173/93, 20-25=-151/83, 21-24=-193/147, 11-34=-194/70, 10-35=-181/25, 8-37=-165/0, 7-38=-215/117, 6-39=-201/92, 5-40=-164/84, 4-41=-226/176, 3-42=-434/410

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-6-5, Exterior(2N) 2-6-5 to 7-8-8, Corner(3R) 7-8-8 to 14-11-8, Exterior(2N) 14-11-8 to 18-1-3, Corner(3R) 18-1-3 to 25-4-3, Exterior (2N) 25-4-3 to 30-3-12, Corner(3E) 30-3-12 to 33-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10



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Continued on page 2

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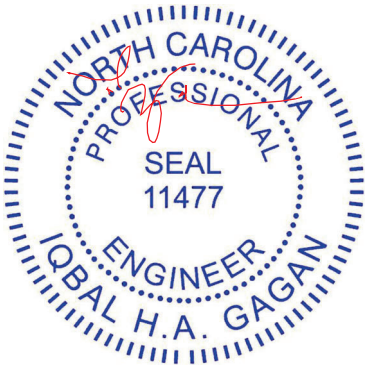
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 42, 262 lb uplift at joint 23, 24 lb uplift at joint 33, 36 lb uplift at joint 32, 4 lb uplift at joint 31, 92 lb uplift at joint 28, 62 lb uplift at joint 27, 72 lb uplift at joint 26, 46 lb uplift at joint 25, 239 lb uplift at joint 24, 34 lb uplift at joint 34, 92 lb uplift at joint 38, 69 lb uplift at joint 39, 36 lb uplift at joint 40 and 187 lb uplift at joint 41.
15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



August 13,2024

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	B1T	Piggyback Base	4	1	I67463801 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 14:29:55 Page: 1
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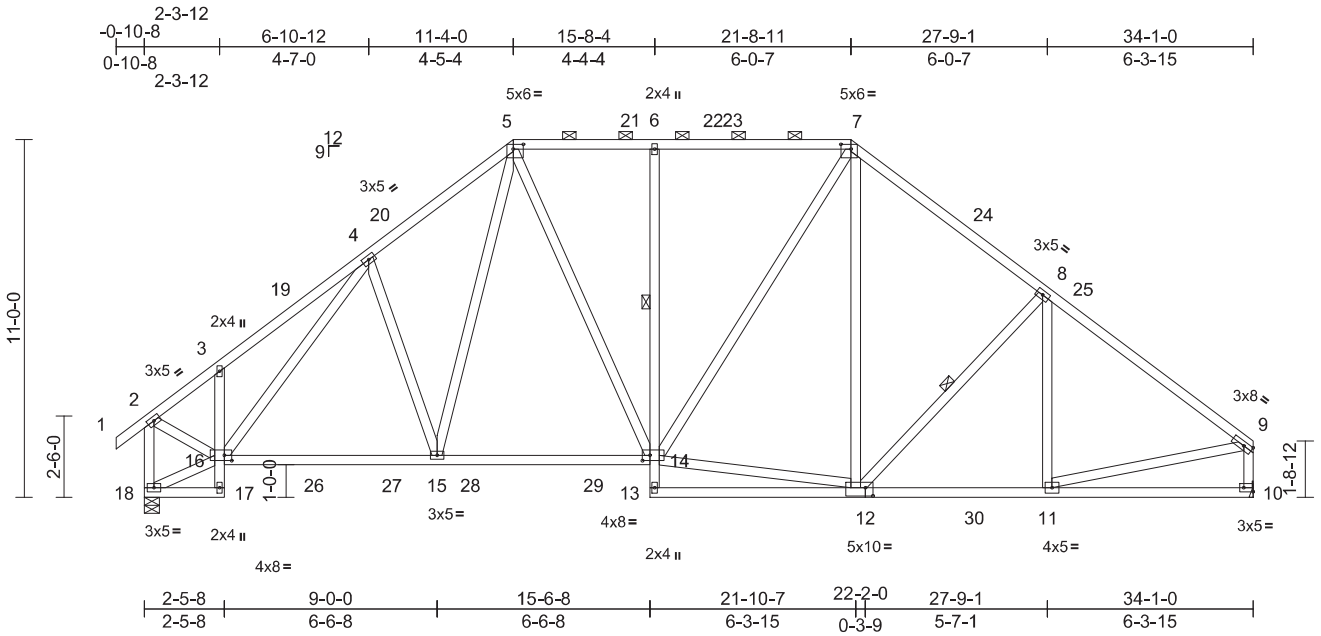


Scale = 1:70.9

Plate Offsets (X, Y): [5:0-3-12,0-1-12], [7:0-3-12,0-1-12], [10:Edge,0-1-8], [12:0-2-12,0-3-0], [14:0-2-12,0-2-0], [16:0-2-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.12	14-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.21	14-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 266 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 17-3:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 14-5,14-7,12-7:2x4 SP No.2

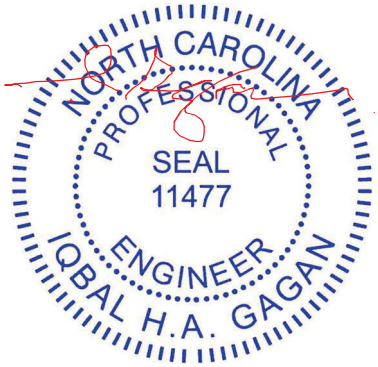
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-5 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 17-18.
1 Row at midpt 6-14
WEBS 1 Row at midpt 8-12

REACTIONS (size) 10= Mechanical, 18=0-5-8
Max Horiz 18=-283 (LC 12)
Max Uplift 10=-80 (LC 15), 18=-90 (LC 14)
Max Grav 10=1551 (LC 47), 18=1629 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-1680/116, 3-4=-1805/247, 4-5=-2103/290, 5-6=-1681/270, 6-7=-1680/271, 7-8=-1885/274, 8-9=-2046/193, 2-18=-1847/136, 9-10=-1703/152
BOT CHORD 17-18=-28/19, 16-17=0/41, 3-16=-277/161, 15-16=-182/1592, 14-15=-130/1351, 13-14=0/121, 6-14=-581/156, 11-13=-21/1577, 10-11=-38/133
WEBS 5-14=-144/546, 12-14=-28/1263, 7-14=-162/549, 7-12=-92/402, 8-12=-423/203, 8-11=-171/82, 9-11=-34/1494, 4-16=-464/151, 4-15=-317/239, 5-15=-140/653, 2-16=-71/1495, 16-18=-265/275

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-9-0, Interior (1) 2-9-0 to 7-8-8, Exterior(2R) 7-8-8 to 14-11-8, Interior (1) 14-11-8 to 18-1-3, Exterior(2R) 18-1-3 to 25-4-3, Interior (1) 25-4-3 to 30-3-12, Exterior(2E) 30-3-12 to 33-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 10.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	BGR	Attic Girder	1	2	I67463802 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 14:29:55 Page: 1
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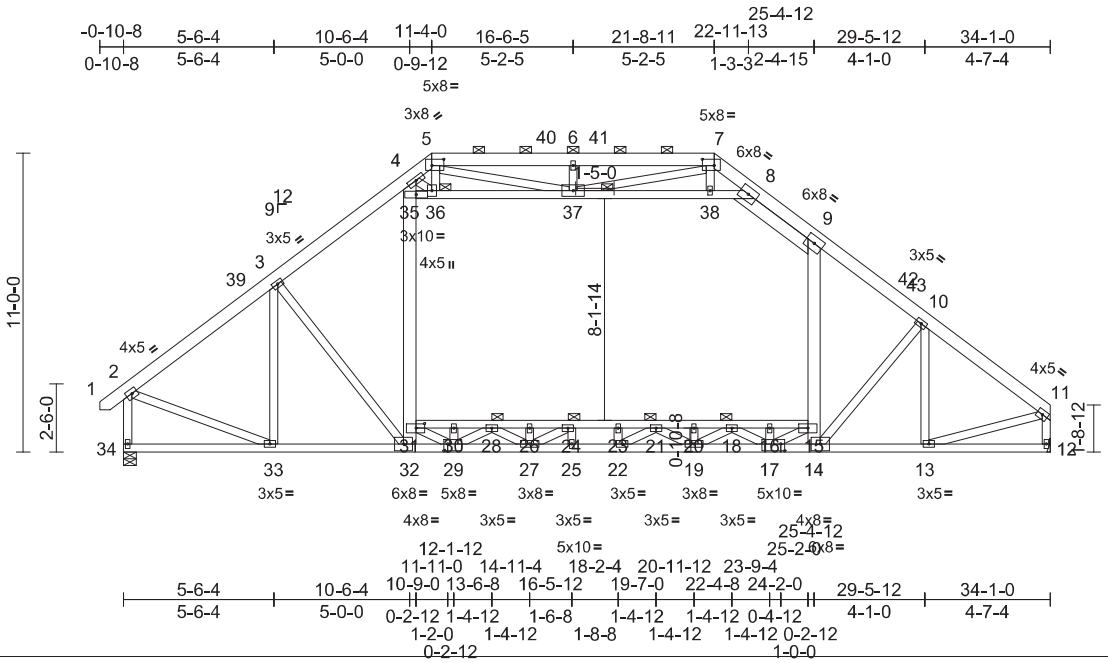


Scale = 1:84.9

Plate Offsets (X, Y): [5:0-5-4,0-2-12], [7:0-5-4,0-2-12], [17:0-1-12,0-3-0], [29:0-1-12,0-3-0], [31:0-3-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.20	18-20	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.34	19-22	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.07	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH		Attic	-0.13	15-31	>999	360		
BCDL	10.0										Weight: 666 lb	FT = 20%

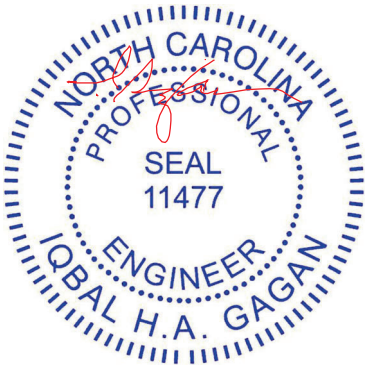
LUMBER
TOP CHORD 2x6 SP No.2 *Except* 7-11:2x6 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 4-32,9-14,8-9:2x6 SP No.2, 35-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 36, 37, 18, 28, 21

REACTIONS (size) 12= Mechanical, 34=0-5-8
Max Horiz 34=-279 (LC 10)
Max Grav 12=2899 (LC 48), 34=2811 (LC 46)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-2878/0, 3-4=-3204/0, 4-5=-1383/278, 5-6=-1701/411, 6-7=-1701/411, 7-8=-865/268, 8-9=-2492/29, 9-10=-3645/0, 10-11=-3344/0, 2-34=-2747/0, 11-12=-2849/0
BOT CHORD 33-34=-245/284, 32-33=-20/2385, 27-32=-305/3814, 25-27=0/5275, 22-25=0/5275, 19-22=0/5241, 14-19=-72/4288, 13-14=0/2657, 12-13=-5/65, 30-31=-430/504, 28-30=-430/504, 26-28=-2309/0, 24-26=-2309/0, 23-24=-2981/0, 21-23=-2981/0, 20-21=-2687/0, 18-20=-2687/0, 16-18=-1187/42, 15-16=-1187/42
WEBS 3-33=-828/6, 3-32=-100/670, 31-32=-145/878, 31-35=0/1643, 4-35=0/1601, 14-15=-104/1025, 9-15=0/1767, 10-14=-232/231, 10-13=-771/0, 35-36=-1336/310, 36-37=-2125/251, 37-38=-3139/0, 8-38=-3166/0, 2-33=0/2312, 11-13=0/2721, 5-36=-45/836, 5-37=-644/697, 6-37=-460/134, 7-37=-296/1258, 7-38=0/213, 4-36=-1345/131, 15-17=0/1522, 29-31=0/1577, 16-17=-233/0, 29-30=-249/0, 17-18=-1019/0, 28-29=-1219/0, 18-19=0/922, 27-28=0/1111, 19-20=-235/0, 26-27=-171/0, 19-21=-307/83, 24-27=-816/0, 21-22=-172/146, 24-25=0/134, 22-23=-82/55

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) All plates are 2x4 MT20 unless otherwise indicated.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) Ceiling dead load (5.0 psf) on member(s). 8-9, 35-36, 36-37, 37-38, 8-38; Wall dead load (5.0psf) on member (s).31-35, 9-15



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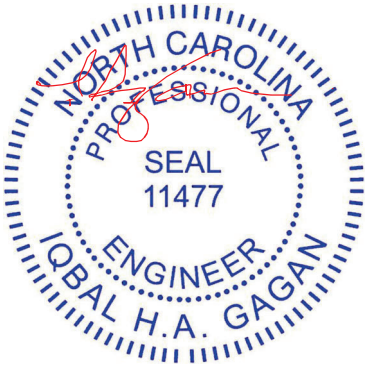
13) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 30-31, 28-30, 26-28, 24-26, 23-24, 21-23, 20-21, 18-20, 16-18, 15-16
14) Refer to girder(s) for truss to truss connections.
15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 839 lb down and 71 lb up at 10-6-4, and 839 lb down and 71 lb up at 25-4-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
18) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-2=-60, 2-5=-60, 5-7=-60, 7-8=-60, 8-9=-70, 9-11=-60, 12-34=-20, 15-31=-30, 35-36=-10, 36-37=-10, 37-38=-10, 8-38=-10
   Drag: 31-35=-10, 9-15=-10
   Concentrated Loads (lb)
   Vert: 32=-450 (F), 14=-450 (F)



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Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	C	Attic	7	1	I67463803 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 14:29:56 Page: 1
ID:VP5mnZE7ejtTka?ri?H4b3zEzov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

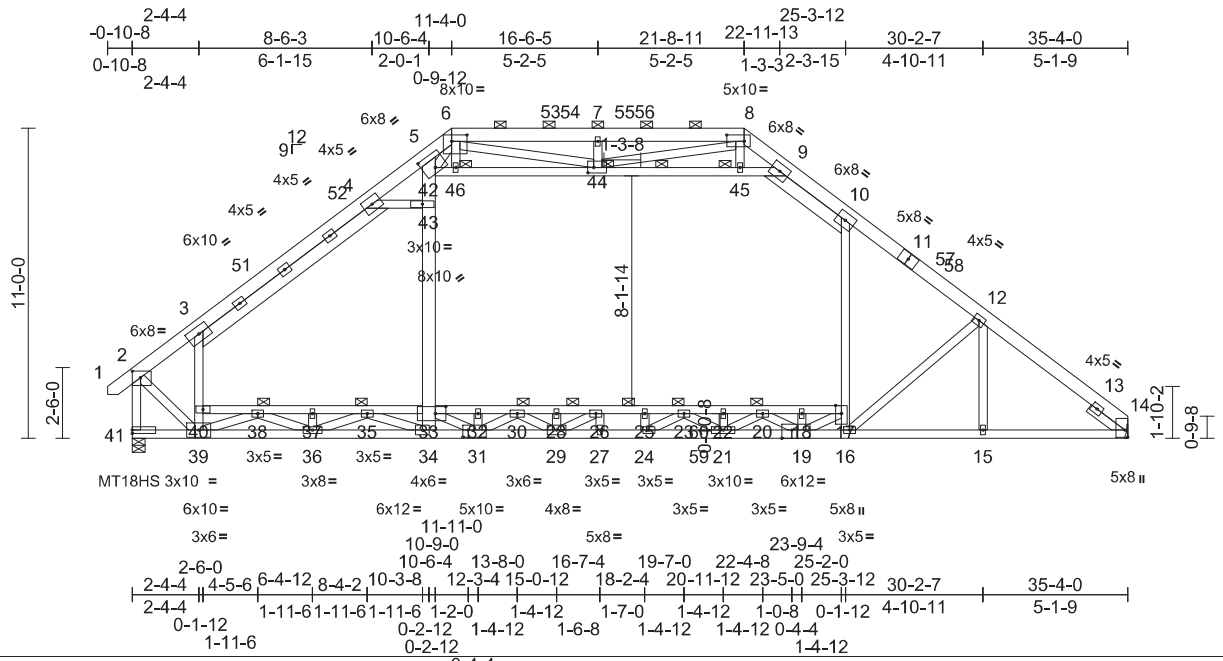


Plate Offsets (X, Y): [2:0-3-8,0-2-12], [6:0-6-8,0-2-12], [8:0-7-8,0-2-12], [14:Edge,0-1-3], [19:0-4-4,Edge], [31:0-2-4,0-3-0], [33:0-4-8,0-3-0], [42:0-5-0,0-5-12], [44:0-2-8,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.30	15-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.61	21-24	>691	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.12	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH		Attic	-0.19	17-33	>938	360		
BCDL	10.0										Weight: 354 lb	FT = 20%

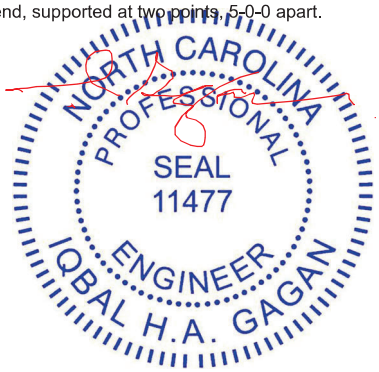
LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 6-8,11-14:2x6 SP No.2
BOT CHORD 2x4 SP No.1 *Except* 33-17,40-33:2x4 SP No.2, 31-19:2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 3-39:2x4 SP 2400F 2.0E, 10-16,42-9,39-2,31-33,6-42:2x4 SP No.2, 5-34:2x6 SP 2400F 2.0E, 3-4,9-10:2x6 SP No.2
SLIDER Right 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-8 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 3-0-0 oc bracing.
WEBS 2 Rows at 1/3 pts 9-44
JOINTS 1 Brace at Jt(s): 20, 23, 30, 38, 35, 44, 46

REACTIONS (size) 14= Mechanical, 41=0-5-8
Max Horiz 41=-277 (LC 12)
Max Grav 14=2367 (LC 48), 41=2957 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-2438/0, 3-4=-3609/0, 4-5=-3640/0, 5-6=-3682/0, 6-7=-1795/403, 7-8=-1795/403, 8-9=-882/297, 9-10=-2718/0, 10-12=-3600/0, 12-14=-3786/0, 2-41=-3312/0
BOT CHORD 39-41=-263/246, 36-39=0/2013, 34-36=-221/1748, 29-34=-1063/3372, 27-29=0/5133, 24-27=0/5133, 21-24=0/5219, 16-21=0/4251, 15-16=0/2893, 14-15=0/2893, 32-33=-490/1714, 30-32=-490/1714, 28-30=-2116/186, 26-28=-2116/186, 25-26=-2961/0, 23-25=-2961/0, 22-23=-2785/0, 20-22=-2785/0, 18-20=-981/0, 17-18=-981/0, 38-40=0/959, 37-38=-123/979, 35-37=-123/979, 33-35=0/2122
WEBS 39-40=-1897/0, 3-40=-1799/0, 16-17=0/476, 10-17=0/1161, 12-16=-410/251, 12-15=-49/122, 42-46=-1161/381, 44-46=-1147/382, 44-45=-3020/0, 9-45=-3059/0, 2-39=0/3264, 17-19=0/1304, 18-19=-204/0, 19-20=-1174/0, 20-21=0/955, 21-22=-151/0, 21-23=-310/176, 23-24=-379/111, 24-25=-22/127, 31-33=0/2157, 31-32=-161/0, 33-34=0/542, 33-43=0/1867, 42-43=0/1881, 5-42=-447/345, 30-31=-1519/0, 29-30=0/1284, 28-29=-114/15, 26-29=-1087/0, 26-27=0/219, 36-37=-267/0, 38-39=-574/86, 36-38=-162/165, 35-36=0/556, 34-35=-1016/0, 4-43=0/666, 7-44=-439/122, 8-44=-177/1534, 8-45=0/385, 6-44=-1413/457, 6-46=-9/163, 6-42=0/2481

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-4 to 2-10-1, Interior (1) 2-10-1 to 7-9-11, Exterior(2R) 7-9-11 to 14-10-5, Interior (1) 14-10-5 to 18-2-6, Exterior(2R) 18-2-6 to 25-3-12, Interior (1) 25-3-12 to 31-8-15, Exterior(2E) 31-8-15 to 35-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 200.0lb AC unit load placed on the bottom chord, 17-7-8 from left end, supported at two points, 5-0-0 apart.



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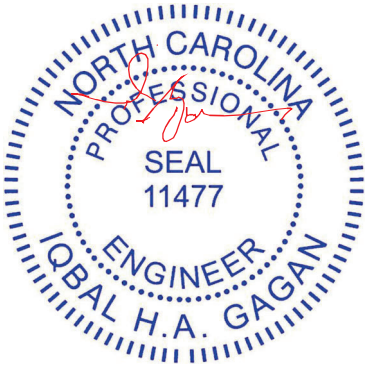
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) All plates are 2x4 MT20 unless otherwise indicated.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) Ceiling dead load (5.0 psf) on member(s). 3-4, 9-10, 42-46, 44-46, 44-45, 9-45, 4-43; Wall dead load (5.0psf) on member(s).3-40, 10-17, 33-43, 42-43
13) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 32-33, 30-32, 28-30, 26-28, 25-26, 23-25, 22-23, 20-22, 18-20, 17-18, 38-40, 37-38, 35-37, 33-35
14) Refer to girder(s) for truss to truss connections.
15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
17) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



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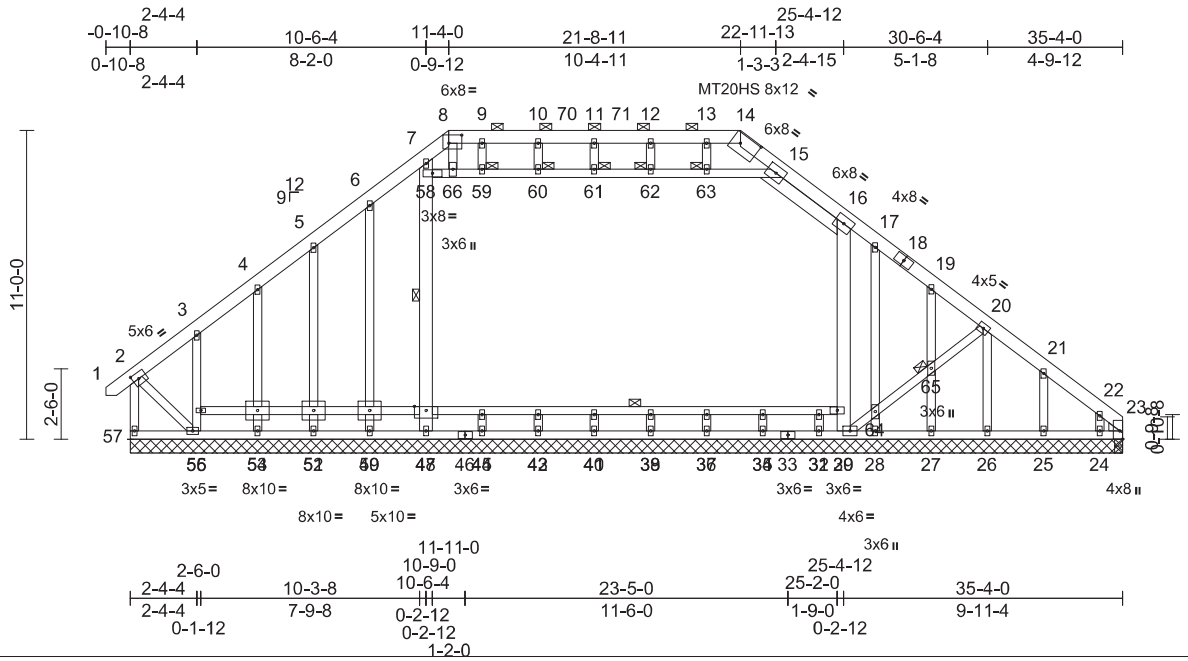
Job	Truss	Truss Type	Qty	Ply	1 Serenity-Roof-B330 E COP TMB BNS 4 GLH
24070208-01	CGE	Attic Structural Gable	1	1	I67463804 Job Reference (optional)

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

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 14:29:57 ID:HSVLvMXIBUOh6UIn9Dc1gjzEzgn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:82.2

Plate Offsets (X, Y): [2:0-2-8,0-2-8], [8:0-5-8,0-3-8], [14:0-8-2,0-3-15], [23:Edge,0-1-3]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	0.00	16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	0.00	16	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.03	23	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 344 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 16-29,7-48,15-16:2x6 SP No.2, 58-15:2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-3-1 oc purlins, except end verticals, and 2-0-0 oc purlins (4-11-11 max.): 8-14.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 47-58
JOINTS 1 Brace at Jt(s): 59, 60, 61, 62, 63, 65

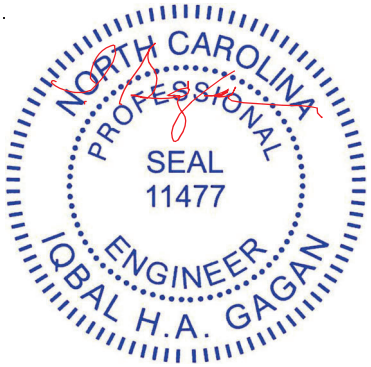
REACTIONS (size) 23=35-4-0, 24=35-4-0, 25=35-4-0, 26=35-4-0, 27=35-4-0, 28=35-4-0, 29=35-4-0, 32=35-4-0, 35=35-4-0, 37=35-4-0, 39=35-4-0, 41=35-4-0, 43=35-4-0, 45=35-4-0, 48=35-4-0, 50=35-4-0, 52=35-4-0, 54=35-4-0, 56=35-4-0, 57=35-4-0, 67=35-4-0
Max Horiz 57=-278 (LC 12)
Max Uplift 23=-64 (LC 11), 24=-141 (LC 57), 25=-52 (LC 15), 26=-15 (LC 11), 27=-61 (LC 15), 28=-126 (LC 57), 29=-48 (LC 15), 50=-124 (LC 55), 52=-47 (LC 14), 54=-43 (LC 14), 56=-512 (LC 55), 57=-298 (LC 10), 67=-64 (LC 11)
Max Grav 23=449 (LC 41), 24=103 (LC 13), 25=199 (LC 23), 26=473 (LC 41), 27=185 (LC 42), 28=51 (LC 13), 29=513 (LC 42), 32=218 (LC 21), 35=268 (LC 21), 37=258 (LC 21), 39=260 (LC 21), 41=261 (LC 21), 43=254 (LC 21), 45=283 (LC 21), 48=545 (LC 45), 50=223 (LC 52), 52=278 (LC 42), 54=250 (LC 52), 56=266 (LC 10), 57=1210 (LC 41), 67=449 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-838/234, 3-4=-877/229, 4-5=-874/223, 5-6=-889/220, 6-7=-780/230, 7-8=-1460/262, 8-9=-1196/237, 9-10=-1196/237, 10-11=-1196/237, 11-12=-1196/237, 12-13=-1196/237, 13-14=-1196/237, 14-15=-1312/242, 15-16=-945/222, 16-17=-692/167, 17-19=-801/125, 19-20=-796/122, 20-21=-490/69, 21-22=-466/70, 22-23=-496/75, 2-57=-1185/306
BOT CHORD 56-57=-237/251, 54-56=-101/562, 52-54=-101/562, 50-52=-101/562, 48-50=-101/562, 45-48=-99/573, 43-45=-99/573, 41-43=-99/573, 39-41=-99/573, 37-39=-99/573, 35-37=-99/573, 32-35=-99/573, 29-32=-99/573, 28-29=-54/364, 27-28=-54/364, 26-27=-54/364, 25-26=-54/364, 24-25=-54/364, 23-24=-54/364, 44-47=-9/67, 42-44=-9/67, 40-42=-9/67, 38-40=-9/67, 36-38=-9/67, 34-36=-9/67, 31-34=-9/67, 30-31=-9/67, 53-55=-15/120, 51-53=-15/120, 49-51=-15/120, 47-49=-15/120
WEBS 55-56=-203/87, 3-55=-186/97, 29-30=-616/0, 16-30=-615/63, 29-64=-66/334, 64-65=-67/339, 20-65=-68/343, 58-66=-77/478, 59-66=-89/556, 59-60=-89/556, 60-61=-89/556, 61-62=-89/556, 62-63=-89/556, 15-63=-89/556, 2-56=-269/904, 47-48=-505/0, 47-58=-463/111, 7-58=-686/170, 4-53=-176/96, 53-54=-224/68, 5-51=-210/94, 51-52=-250/71, 6-49=-148/187, 49-50=-183/164, 9-59=-294/61, 44-45=-243/0, 10-60=0/26, 42-43=-214/0, 11-61=-15/19, 40-41=-221/0, 12-62=-96/33, 38-39=-220/0, 13-63=-12/168, 36-37=-218/0, 34-35=-227/0, 31-32=-185/0, 17-64=-21/153, 28-64=-23/161, 19-65=-166/84, 27-65=-162/86, 20-26=-435/39, 21-25=-174/79, 22-24=-65/92, 8-66=-113/703

NOTES

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



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2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-8-4 to 2-10-1, Exterior(2N) 2-10-1 to 7-9-11, Corner(3R) 7-9-11 to 14-10-5, Exterior (2N) 14-10-5 to 18-2-6, Corner(3R) 18-2-6 to 25-4-12, Exterior(2N) 25-4-12 to 31-9-11, Corner(3E) 31-9-11 to 35-4-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) All plates are 2x4 MT20 unless otherwise indicated.
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) Ceiling dead load (5.0 psf) on member(s). 15-16, 58-66, 59-66, 59-60, 60-61, 61-62, 62-63, 15-63; Wall dead load (5.0psf) on member(s).16-30, 47-58
14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 44-47, 42-44, 40-42, 38-40, 36-38, 34-36, 31-34, 30-31
15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 512 lb uplift at joint 56.
16) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 57, 29, 23, 54, 52, 50, 28, 27, 26, 25, and 24. This connection is for uplift only and does not consider lateral forces.
17) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
18) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
19) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

August 13,2024

ENGINEERING BY TRENCO
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