

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 21040035-A
1100 Carolina Way-Roof-BB-2250

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: I45815316 thru I45815364

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



April 26, 2021

Johnson, Andrew

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.

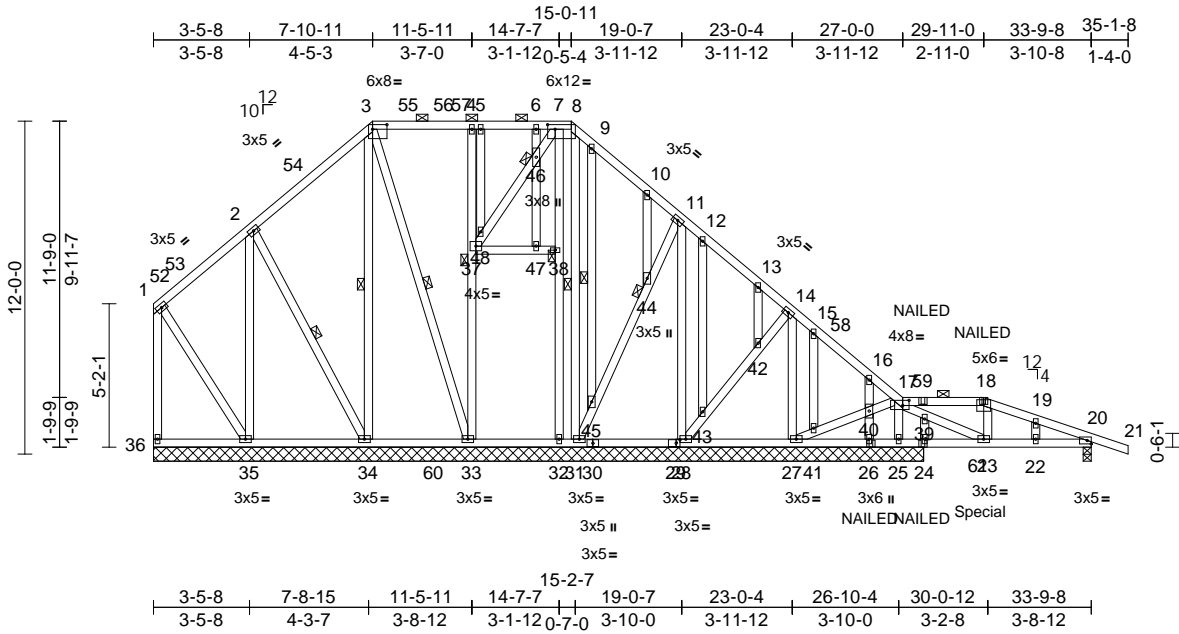
Job 21040035-A	Truss A01	Truss Type Piggyback Base Girder	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250	I45815316
					Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:27

Page: 1

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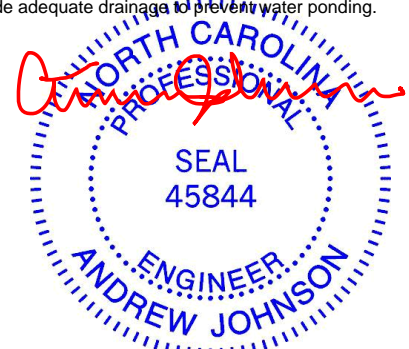
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Plate Offsets (X, Y): [3:0-6-4,0-2-0], [8:0-3-4,0-2-0], [17:0-2-12,0-2-4], [29:0-1-11,0-1-8]

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	0.44	Vert(LL)	-0.01	22-23	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.02	22-23	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.01	20	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 356 lb	FT = 20%

LUMBER	TOP CHORD	1-52=111/80, 52-53=76/86, 2-53=32/115, 2-54=124/159, 3-54=11/213, 3-55=0/172, 55-56=0/172, 56-57=0/172, 4-57=0/172, 4-5-0/172, 5-6=0/172, 6-7=0/172, 7-8=0/172, 8-9=0/211, 9-10=5/184, 10-11=56/130, 11-12=11/142, 12-13=40/105, 13-14=95/70, 14-15=25/69, 15-58=34/63, 16-58=112/57, 16-17=101/79, 17-59=540/148, 18-59=540/148, 18-19=578/140, 19-20=604/121, 20-21=0/36, 1-36=185/116	1)
TOP CHORD	2x4 SP No.2		Unbalanced roof live loads have been considered for this design.
BOT CHORD	2x4 SP No.2		Wind: ASCE 7-10; 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
WEBS	2x4 SP No.3 *Except* 34-3,33-3,4-33,31-8,7-32:2x4 SP No.2		Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
OTHERS	2x4 SP No.3		TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
BRACING			Unbalanced snow loads have been considered for this design.
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.): 3-8, 17-18.		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.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.		Provide adequate drainage to prevent water ponding.
WEBS	1 Row at midpt 2-34, 3-34, 3-33, 8-31, 9-45		
JOINTS	1 Brace at Jt(s): 37, 38, 44, 46		
REACTIONS	(size) 20=0-3-8, 24=27-9-0, 25=27-9-0, 26=27-9-0, 27=27-9-0, 28=27-9-0, 31=27-9-0, 32=27-9-0, 33=27-9-0, 34=27-9-0, 35=27-9-0, 36=27-9-0		
	Max Horiz 36=361 (LC 10)		
	Max Uplift 20=135 (LC 9), 25=125 (LC 9), 26=69 (LC 13), 27=6 (LC 13), 28=116 (LC 65), 31=111 (LC 65), 32=18 (LC 9), 33=106 (LC 9), 34=75 (LC 12), 35=53 (LC 64), 36=107 (LC 62)		
	Max Grav 20=535 (LC 47), 24=183 (LC 46), 25=420 (LC 39), 26=396 (LC 39), 27=260 (LC 39), 28=368 (LC 39), 31=439 (LC 39), 32=241 (LC 56), 33=536 (LC 38), 34=414 (LC 51), 35=336 (LC 51), 36=213 (LC 53)		
FORCES	(lb) - Maximum Compression/Maximum Tension		

NOTES



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Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1100 Carolina Way-Roof-BB-2250	I45815316
21040035-A	A01	Piggyback Base Girder	1	1	Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:27
 ID:INrpEw9gxzjNdX?LUorAzuzNyJp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 2

- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 12) N/A

- 13) This truss is designed in accordance with the 2015 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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 205 lb down and 41 lb up at 35-2-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 17) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-3=-60, 3-8=-60, 8-17=-60, 17-18=-60,
 18-21=-60, 36-49=-20
 Concentrated Loads (lb)
 Vert: 18=-47 (B), 24=-23 (B), 26=-131 (B), 59=-43 (B), 61=-205 (B)

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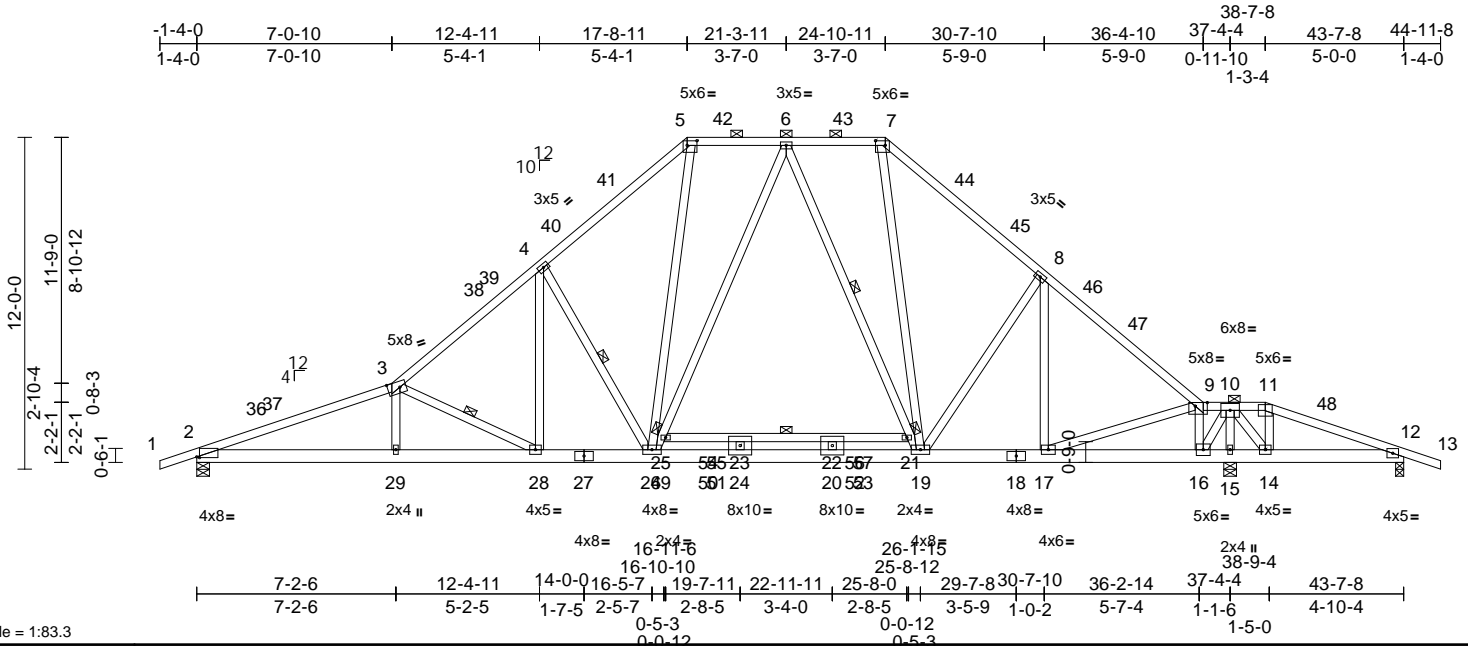
818 Soundside Road
 Edenton, NC 27932

Job 21040035-A	Truss A02	Truss Type Piggyback Base	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250	I45815317
					Job Reference (optional)	

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

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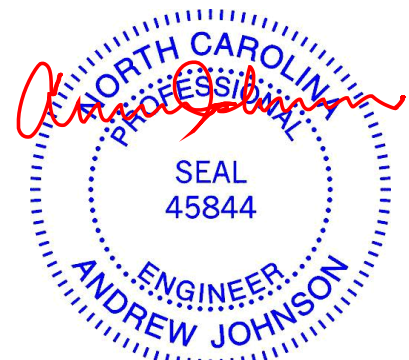
Scale = 1:83.3

Plate Offsets (X, Y): [2:0-1-3,0-0-5], [3:0-5-4,0-2-8], [5:0-4-4,0-2-0], [7:0-4-4,0-2-0], [9:0-5-4,0-1-8]

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	0.94	Vert(LL)	-0.25	22-23	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.54	22-23	>831	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.07	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 338 lb	FT = 20%

LUMBER	TOP CHORD	BOT CHORD	WEBS	BRACING	TOP CHORD	BOT CHORD	WEBS	REACTIONS	FORCES	TOP CHORD
2x4 SP No.2 *Except* 1-3:2x4 SP No.1	2x6 SP No.2 *Except* 25-21:2x4 SP No.3	2x4 SP No.3 *Except*	5-26,7-19,6-26,6-19:2x4 SP No.2	Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-6-12 max.): 5-7, 9-11.	Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 6-0-0 oc bracing: 21-25	1 Row at midpt 3-28, 4-26, 6-21	(size) 2=0-5-8, 12=0-3-8, 15=0-5-8 Max Horiz 2=214 (LC 13) Max Uplift 2=-56 (LC 14), 12=-222 (LC 58) Max Grav 2=1699 (LC 21), 12=210 (LC 53), 15=2727 (LC 43)	(lb) - Maximum Compression/Maximum Tension 1-2=0/41, 2-36=-4079/49, 36-37=-4056/55, 3-37=-4041/70, 3-38=-2872/59, 38-39=-2757/69, 4-39=-2692/82, 4-40=-2370/84, 40-41=-2223/103, 5-41=-2221/121, 5-42=-1568/156, 6-42=-1568/156, 6-43=-1316/153, 7-43=-1316/153, 7-44=-1851/110, 44-45=-1858/91, 8-45=-2021/70, 8-46=-1669/61, 46-47=-1810/39, 9-47=-1987/35, 9-10=-24/241, 10-11=0/893, 11-48=0/1005, 12-48=0/959, 12-13=0/39		

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; 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 (2) 1-4-0 to 3-0-6, Interior (1) 3-0-6 to 13-4-6, Exterior (2) 13-4-6 to 29-3-0, Interior (1) 29-3-0 to 40-7-2, Exterior (2) 40-7-2 to 44-11-8 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 200.0lb AC unit load placed on the bottom chord, 21-3-11 from left end, supported at two points, 5-0-0 apart.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 12. This connection is for uplift only and does not consider lateral forces.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 26, 2021

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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1100 Carolina Way-Roof-BB-2250	I45815317
21040035-A	A02	Piggyback Base	1	1	Job Reference (optional)	

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

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Page: 2

12) 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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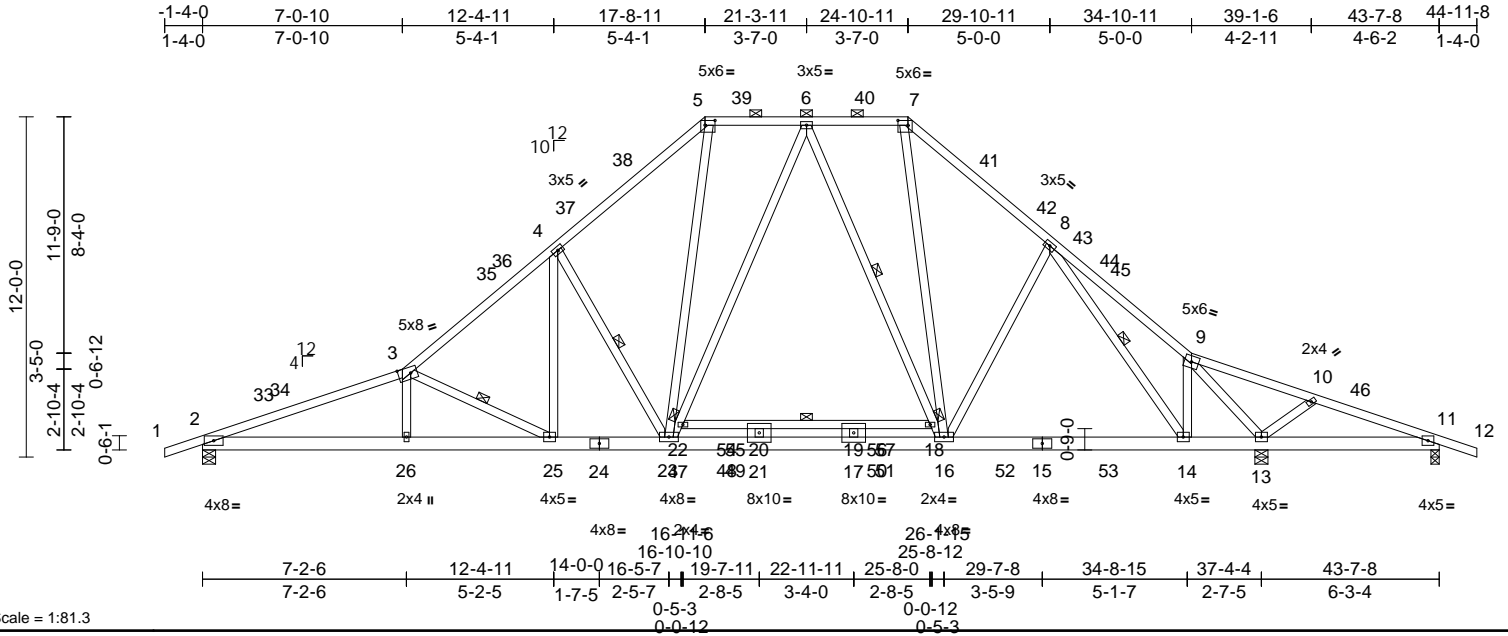
818 Soundside Road
 Edenton, NC 27932

Job 21040035-A	Truss A03	Truss Type Piggyback Base	Qty 5	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815318
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:81.3

Plate Offsets (X, Y): [3:0-5-4,0-2-8], [5:0-4-4,0-2-0], [7:0-4-4,0-2-0]

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	0.94	Vert(LL)	-0.24	19-20	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.53	19-20	>840	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.09	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 334 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-3:2x4 SP No.1
BOT CHORD 2x6 SP No.2 *Except* 22-18:2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
5-23,7-16,6-23,6-16:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (4-6-9 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
2-2-0 oc bracing: 23-25
6-0-0 oc bracing: 11-13.
6-0-0 oc bracing: 18-22
WEBS 1 Row at midpt 3-25, 4-23, 8-14, 6-18

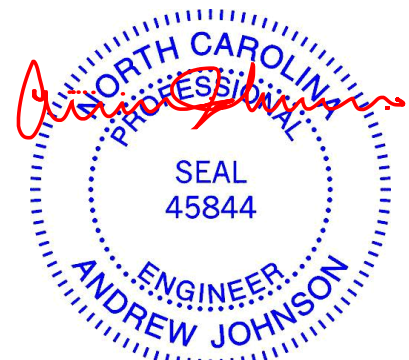
REACTIONS (size) 2=0-5-8, 11=0-3-8, 13=0-5-8
Max Horiz 2=195 (LC 14)
Max Uplift 2=-54 (LC 14), 11=-288 (LC 55)
Max Grav 2=1697 (LC 21), 11=200 (LC 49), 13=2494 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-33=-4046/36, 33-34=-4016/42,
3-34=-4002/58, 3-35=-2850/49,
35-36=-2754/59, 4-36=-2701/73,
4-37=-2384/74, 37-38=-2237/93,
5-38=-2235/111, 5-39=-1577/149,
6-39=-1577/149, 6-40=-1330/143,
7-40=-1330/143, 7-41=-1883/110,
41-42=-1887/91, 8-42=-2019/75,
8-43=-843/82, 43-44=-857/77,
44-45=-910/67, 9-45=-1006/59,
9-10=-83/1148, 10-46=-26/1004,
11-46=-39/978, 11-12=0/41

BOT CHORD 2-26=-73/3797, 25-26=-70/3801,
24-25=0/2222, 23-24=0/2222, 23-47=0/1490,
47-48=0/1490, 48-49=0/1490, 21-49=0/1490,
17-21=0/1490, 17-50=0/1490, 50-51=0/1490,
16-51=0/1490, 16-52=0/1428, 15-52=0/1428,
15-53=0/1428, 14-53=0/1428, 13-14=0/701,
11-13=-928/96, 22-54=-33/0, 54-55=-33/0,
20-55=-33/0, 19-20=-33/0, 19-56=-33/0,
56-57=-33/0, 18-57=-33/0
WEBS 3-26=0/170, 3-25=-1929/122, 4-25=-77/809,
4-23=-1037/315, 8-16=-139/311,
8-14=-1255/0, 9-14=0/1026, 9-13=-2753/76,
10-13=-522/156, 5-23=0/1186, 7-16=0/966,
22-23=-99/387, 6-22=-69/435,
6-18=-575/131, 16-18=-622/100,
20-21=-135/0, 17-19=-139/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; 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 (2) -1-4-0 to 3-0-6, Interior (1) 3-0-6 to 13-4-6, Exterior (2) 13-4-6 to 29-3-0, Interior (1) 29-3-0 to 40-7-2, Exterior (2) 40-7-2 to 44-11-8 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 21-3-11 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 11. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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Continued on page 2

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1100 Carolina Way-Roof-BB-2250	I45815318
21040035-A	A03	Piggyback Base	5	1	Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:33
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Page: 2

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

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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818 Soundside Road
 Edenton, NC 27932

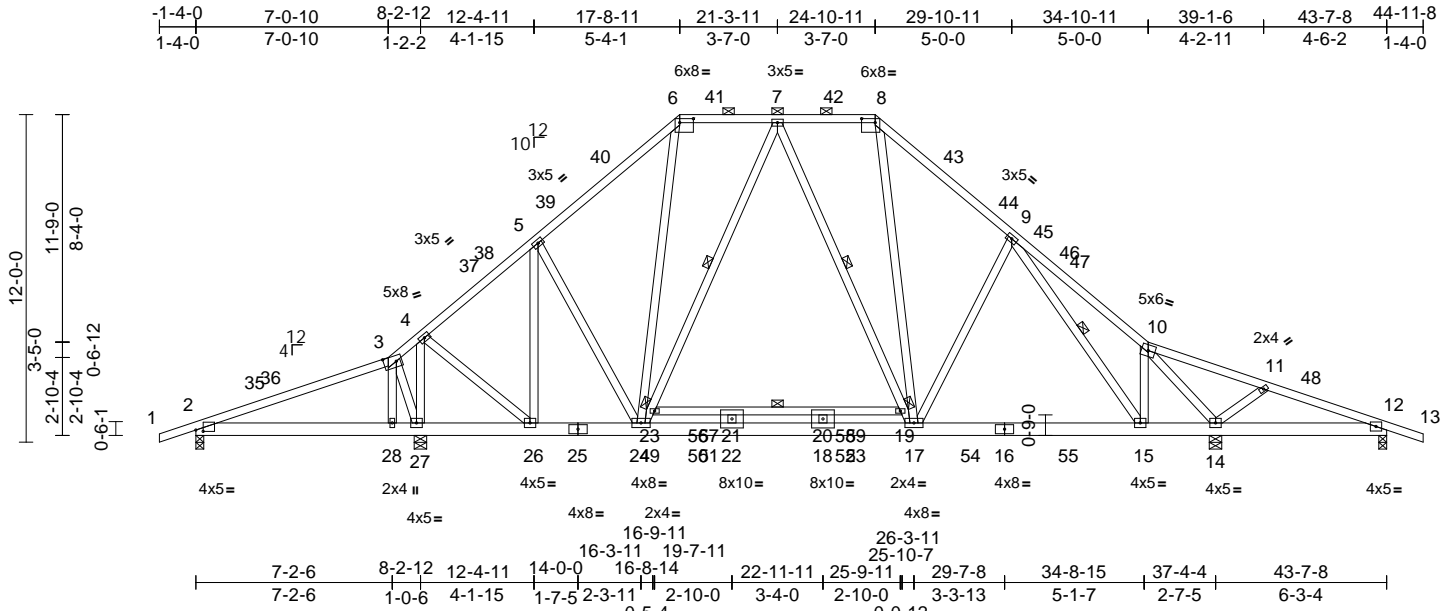
Job 21040035-A	Truss A04	Truss Type Piggyback Base	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250	I45815319
					Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:34

Page: 1

ID:uyVzEGNnnCS0DbN5oAMD?zNyXk-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRcDoi7J4zJC?



Scale = 1:84.4
Plate Offsets (X, Y): [2:0-3-3,0-0-9], [3:0-5-8,0-2-8], [6:0-6-0,0-1-12], [8:0-6-0,0-1-12]

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	0.70	Vert(LL)	-0.19	20-21	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.39	20-21	>904	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.03	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 342 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 23-19:2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
24-6,17-8,17-7,24-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-1 oc purlins, except 2-0-0 oc purlins (5-8-3 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-28,26-27,12-14.
6-0-0 oc bracing: 19-23
WEBS 1 Row at midpt 9-15, 7-19, 7-23

REACTIONS (size) 2=0-3-8, 12=0-3-8, 14=0-5-8, 27=0-5-8
Max Horiz 2=195 (LC 14)
Max Uplift 2=-148 (LC 10), 12=-120 (LC 11), 14=-53 (LC 15), 27=-2 (LC 14)
Max Grav 2=566 (LC 45), 12=355 (LC 49), 14=1878 (LC 6), 27=1809 (LC 51)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-35=-307/135, 35-36=-238/141, 3-36=-205/157, 3-4=-62/182, 4-37=-1064/41, 37-38=-971/52, 5-38=-930/62, 5-39=-1419/58, 39-40=-1276/76, 6-40=-1271/95, 6-41=-906/141, 7-41=-906/141, 7-42=-1034/139, 8-42=-1034/139, 8-43=-1468/103, 43-44=-1474/85, 9-44=-1606/68, 9-45=-970/83, 45-46=-976/78, 46-47=-1036/68, 10-47=-1132/60, 10-11=-101/522, 11-48=-25/412, 12-48=-37/383, 12-13=0/41

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; 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 (2) -1-4-0 to 3-0-6, Interior (1) 3-0-6 to 13-4-6, Exterior (2) 13-4-6 to 29-3-0, Interior (1) 29-3-0 to 40-7-2, Exterior (2) 40-7-2 to 44-11-8 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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, 21-3-11 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 14, 12, and 27. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss A04	Truss Type Piggyback Base	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 I45815319 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:34
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Page: 2

- 12) 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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818 Soundside Road
Edenton, NC 27932

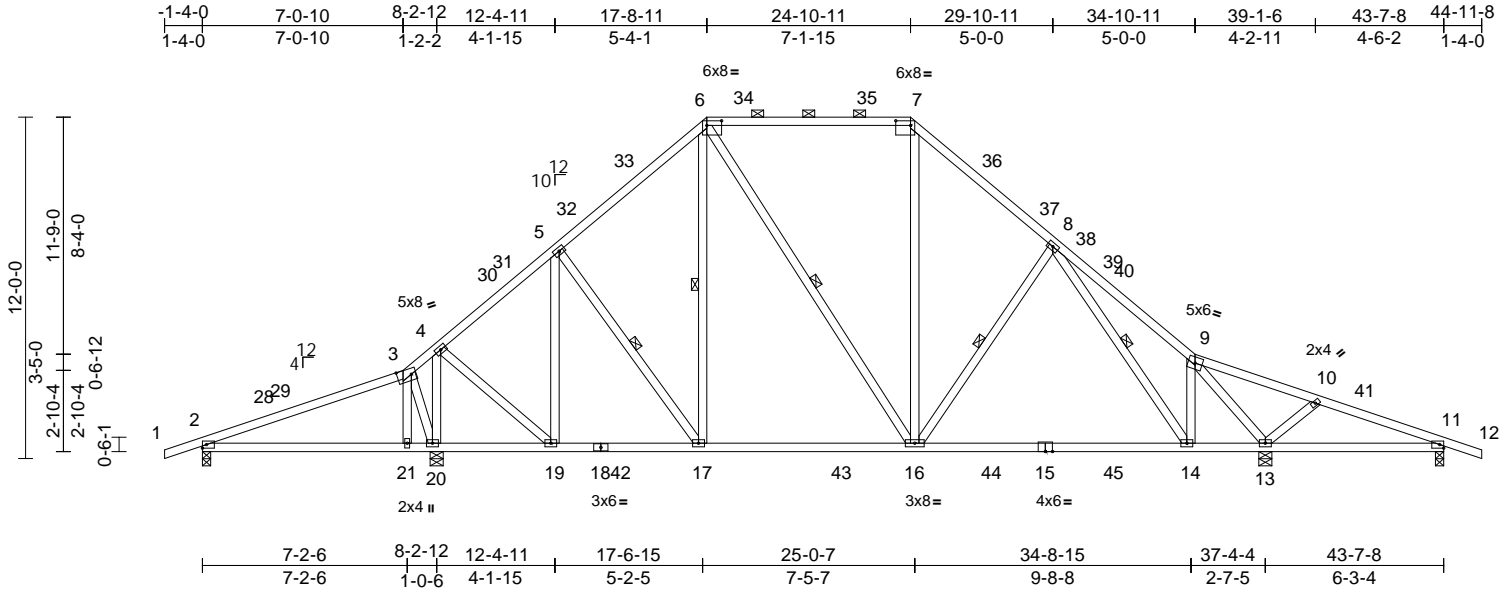
Job 21040035-A	Truss A04A	Truss Type Piggyback Base	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815320
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:36

Page: 1

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Job 21040035-A	Truss A05	Truss Type Piggyback Base	Qty 5	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815321
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:37

Page: 1

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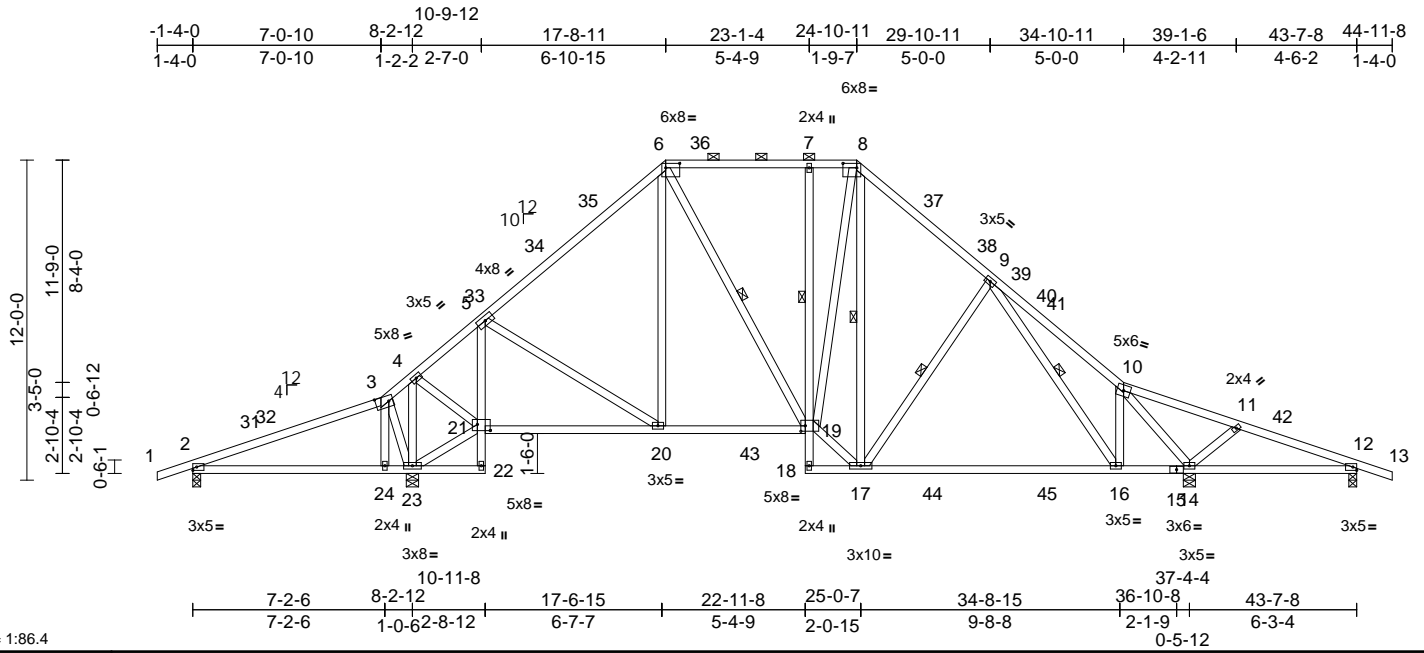


Plate Offsets (X, Y): [3:0-6-0,0-2-8], [6:0-6-4,0-2-0], [8:0-6-4,0-2-0], [19:0-2-0,0-2-8], [21:0-5-12,0-2-12]

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	0.99	Vert(LL)	-0.24	16-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.43	16-17	>813	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.06	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 306 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 22-5:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 19-6,17-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (5-2-7 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 7-19
WEBS 1 Row at midpt 6-19, 8-17, 9-17, 9-16

REACTIONS (size) 2=0-3-8, 12=0-3-8, 14=0-5-8, 23=0-5-8
Max Horiz 2=195 (LC 14)
Max Uplift 2=-202 (LC 10), 12=-99 (LC 11), 14=-211 (LC 15), 23=-157 (LC 14)
Max Grav 2=609 (LC 45), 12=388 (LC 49), 14=1580 (LC 22), 23=1663 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-31=-422/308, 31-32=-338/321, 3-32=-317/363, 3-4=-113/456, 4-5=-780/148, 5-33=-1215/210, 33-34=-1203/230, 34-35=-984/240, 6-35=-939/264, 6-36=-833/286, 7-36=-833/286, 7-8=-827/286, 8-37=-970/309, 37-38=-978/290, 9-38=-1142/274, 9-39=-855/177, 39-40=-861/172, 40-41=-921/162, 10-41=-1017/154, 10-11=-108/421, 11-42=-45/294, 12-42=-105/260, 12-13=0/41

BOT CHORD 2-24=-185/301, 23-24=-175/319, 22-23=-23/18, 21-22=0/44, 5-21=-735/144, 20-21=-136/743, 20-43=0/818, 19-43=0/818, 18-19=-177/0, 7-19=-452/139, 17-18=-58/7, 17-44=0/909, 44-45=0/909, 16-45=0/909, 15-16=0/731, 14-15=0/731, 12-14=-226/113
WEBS 3-24=0/365, 5-20=-44/359, 6-20=-31/209, 6-19=-114/291, 17-19=0/1024, 8-19=-119/747, 8-17=-276/122, 9-17=-340/239, 9-16=-346/78, 10-16=0/464, 10-14=-1704/216, 11-14=-536/153, 4-21=-97/1108, 3-23=-832/159, 4-23=-1269/52, 21-23=-327/147

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; 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 (2) -1-4-0 to 3-0-6, Interior (1) 3-0-6 to 13-4-6, Exterior (2) 13-4-6 to 29-3-0, Interior (1) 29-3-0 to 40-7-2, Exterior (2) 40-7-2 to 44-11-8 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 12, and 23. This connection is for uplift only and does not consider lateral forces.
10) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) 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



April 26, 2021

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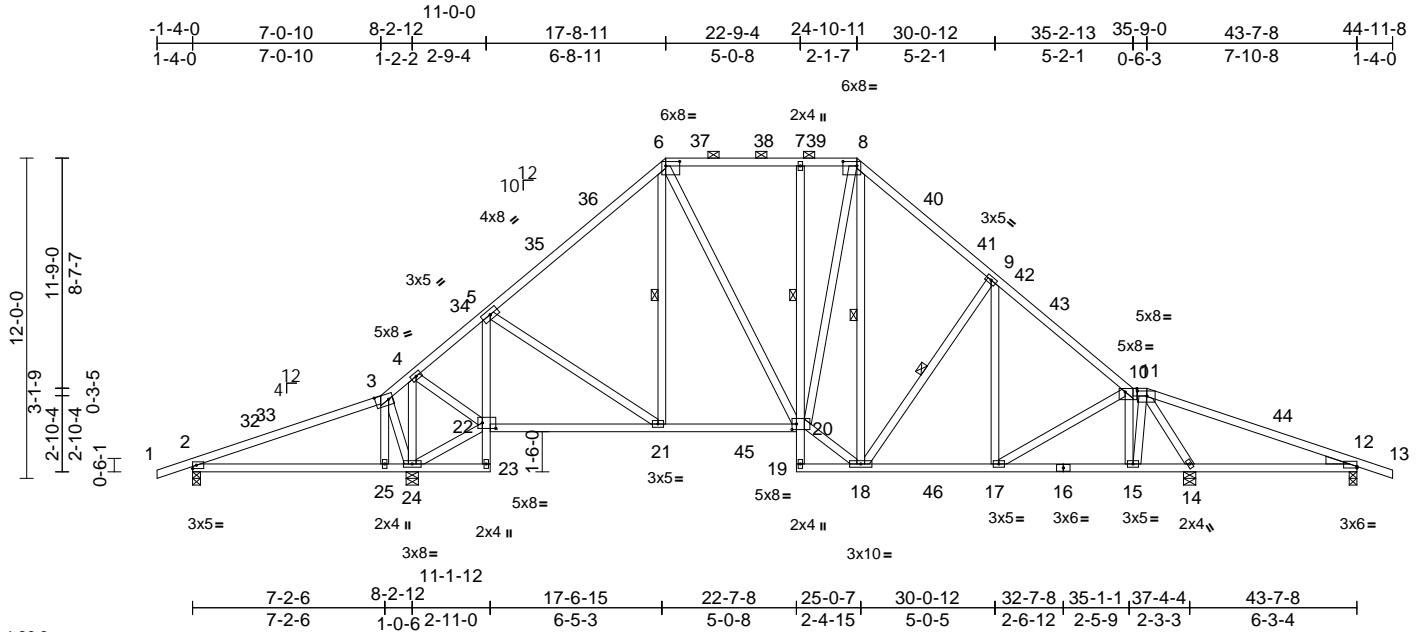
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss A06	Truss Type Piggyback Base	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250	I45815322
					Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:38
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Page: 1



Scale = 1:86.3

Plate Offsets (X, Y): [3:0-6-0,0-2-8], [6:0-6-4,0-2-0], [8:0-6-4,0-2-0], [10:0-5-4,0-1-8], [11:0-4-4,0-2-4], [12:Edge,0-0-11], [20:0-2-0,0-2-8], [22:0-6-0,0-2-8]

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	0.95	Vert(LL)	-0.09	25-28	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.16	25-28	>600	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.06	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 313 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 11-13:2x4 SP No.1
BOT CHORD 2x4 SP No.2 *Except* 23-5:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 20-6,18-8:2x4 SP No.2
WEDGE Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (4-6-10 max.): 6-8, 10-11.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 7-20
WEBS 1 Row at midpt 6-21, 8-18, 9-18

REACTIONS (size) 2=0-3-8, 12=0-3-8, 14=0-5-8, 24=0-5-8
Max Horiz 2=195 (LC 14)
Max Uplift 2=-202 (LC 69), 12=-183 (LC 70), 14=-106 (LC 15), 24=-167 (LC 14)
Max Grav 2=607 (LC 48), 12=574 (LC 53), 14=1706 (LC 43), 24=1737 (LC 43)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-32=-417/322, 32-33=-332/334, 3-33=-312/377, 3-4=-107/472, 4-34=-858/158, 5-34=-762/161, 5-35=-1281/248, 35-36=-1050/259, 6-36=-1010/282, 6-37=-907/306, 37-38=-907/306, 7-38=-907/306, 7-39=-905/306, 8-39=-905/306, 8-40=-1066/341, 40-41=-1076/323, 9-41=-1251/305, 9-42=-1294/267, 42-43=-1303/265, 10-43=-1585/246, 10-11=-1055/210, 11-44=-296/290, 12-44=-406/239, 12-13=0/38

BOT CHORD 2-25=-204/296, 24-25=-194/313, 23-24=-22/17, 22-23=0/48, 5-22=-734/144, 21-22=-133/771, 21-45=0/842, 20-45=0/842, 19-20=-5/17, 7-20=-423/129, 18-19=-19/19, 18-46=-14/1120, 17-46=-14/1120, 16-17=-93/1055, 15-16=-93/1055, 14-15=-98/919, 12-14=-200/281
WEBS 3-25=0/362, 5-21=-45/345, 6-21=-40/199, 6-20=-129/336, 18-20=0/966, 8-20=-100/697, 8-18=-304/132, 9-18=-532/254, 9-17=-26/183, 10-17=-113/287, 10-15=-900/102, 11-15=-49/899, 11-14=-1691/202, 4-22=-93/1161, 3-24=-825/161, 4-24=-1325/69, 22-24=-341/154

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 1-1-4-0 to 3-0-6, Interior (1) 3-0-6 to 13-4-6, Exterior (2) 13-4-6 to 29-3-0, Interior (1) 29-3-0 to 40-7-2, Exterior (2) 40-7-2 to 44-11-8 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 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 24, and 12. This connection is for uplift only and does not consider lateral forces.
10) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 26, 2021

Continued on page 2

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Job 21040035-A	Truss A06	Truss Type Piggyback Base	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815322
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:38
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Page: 2

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 86 lb down and 38 lb up at 30-7-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-6=-60, 6-8=-60, 8-10=-60,
10-11=-60, 11-13=-60, 23-26=-20, 20-22=-20,
19-29=-20
Concentrated Loads (lb)
Vert: 42=-7

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



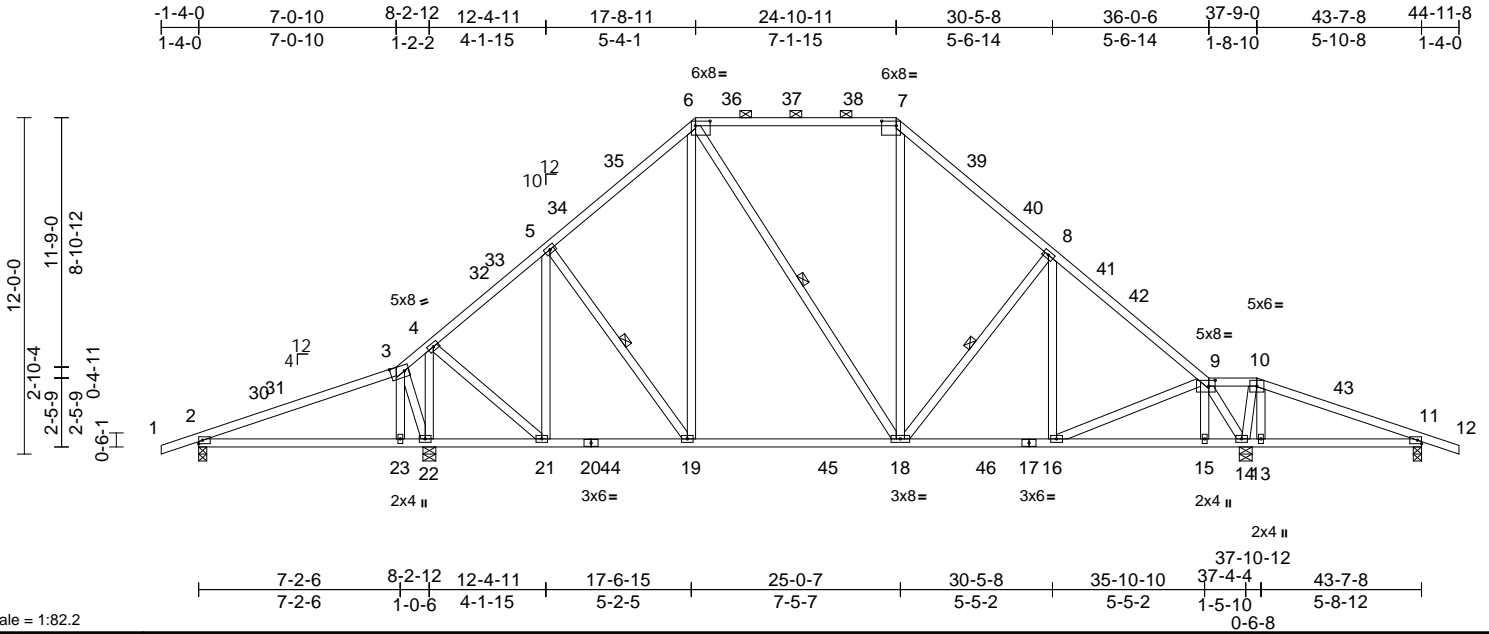
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss A07	Truss Type Piggyback Base	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815323
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:39
ID:TGbrfQl4wGk2Y8?K889gLqzNyRN-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:82.2

Plate Offsets (X, Y): [3:0-6-0,0-2-8], [6:0-6-4,0-2-0], [7:0-6-4,0-2-0], [9:0-2-12,0-2-8]

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	0.97	Vert(LL)	0.06	23-26	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.20	18-19	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.03	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 283 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-7:2x4 SP 2400F 2.OE
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 19-6,18-6,18-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 6-7, 9-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 13-14,11-13.
WEBS 1 Row at midpt 6-18, 8-18, 5-19

REACTIONS (size) 2=0-3-8, 11=0-3-8, 14=0-5-8, 22=0-5-8
Max Horiz 2=202 (LC 13)
Max Uplift 2=-171 (LC 10), 11=-142 (LC 11), 14=-152 (LC 15), 22=-149 (LC 14)
Max Grav 2=674 (LC 48), 11=446 (LC 53), 14=1843 (LC 43), 22=1548 (LC 43)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-30=-603/191, 30-31=-519/199, 3-31=-497/214, 3-4=-300/247, 4-32=-990/192, 32-33=-879/198, 5-33=-830/212, 5-34=-1124/273, 34-35=-963/291, 6-35=-957/310, 6-36=-801/307, 36-37=-801/307, 37-38=-801/307, 7-38=-801/307, 7-39=-1049/320, 39-40=-1052/300, 8-40=-1250/281, 8-41=-1213/234, 41-42=-1337/214, 9-42=-1521/209, 9-10=0/363, 10-43=-90/322, 11-43=-172/259, 11-12=0/38

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; 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 (2) 1-4-0 to 3-0-6, Interior (1) 3-0-6 to 13-4-6, Exterior (2) 13-4-6 to 29-3-0, Interior (1) 29-3-0 to 40-7-2, Exterior (2) 40-7-2 to 44-11-8 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 22, and 11. This connection is for uplift only and does not consider lateral forces.
- One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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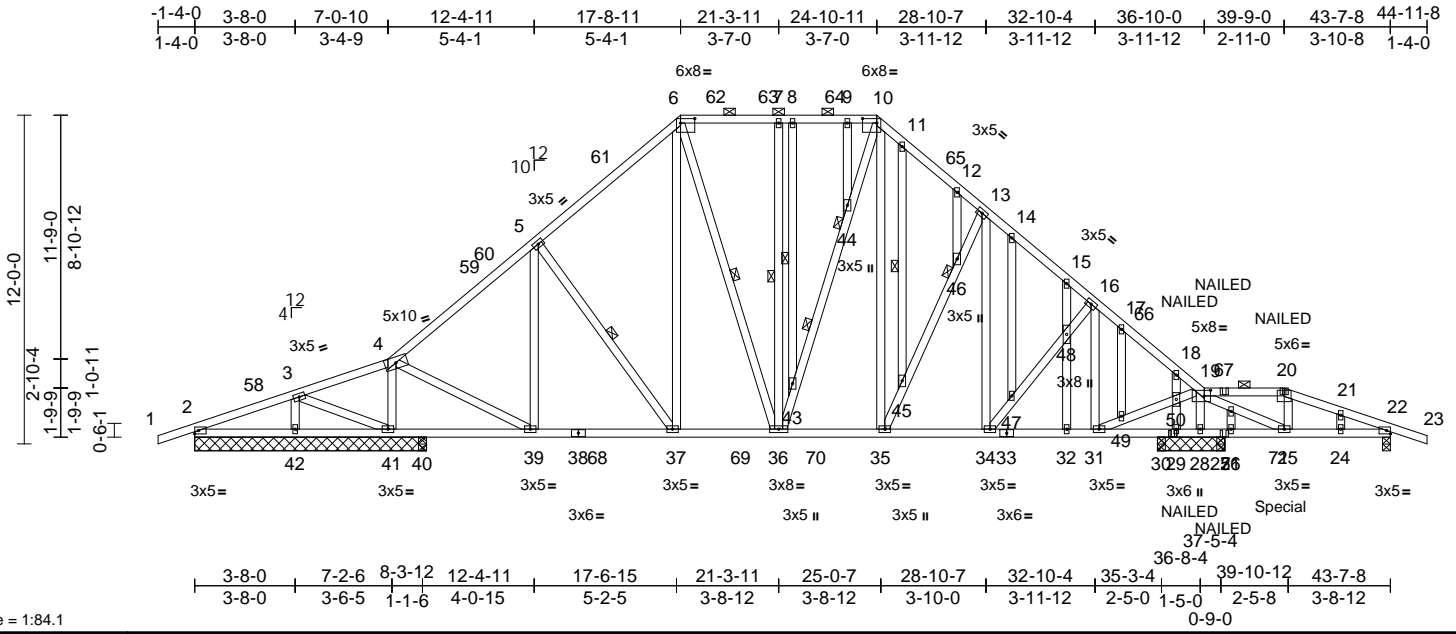
Job 21040035-A	Truss A08	Truss Type Piggyback Base Girder	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250	I45815324
					Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:41

Page: 1

ID:UtmO3JX3vbbaoqow6Z_bUKzNyPn-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC7f



Scale = 1:84.1

Plate Offsets (X, Y): [6:0-6-4,0-2-0], [10:0-6-4,0-2-0], [19:0-2-12,0-2-8]

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	0.67	Vert(LL)	-0.04	37-39	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.08	37-39	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.02	30	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 390 lb	FT = 20%

LUMBER	TOP CHORD	WEBS
TOP CHORD	2x4 SP No.2	3-42=284/112, 3-41=136/72,
BOT CHORD	2x4 SP No.2	4-41=1358/211, 4-39=72/1099,
WEBS	2x4 SP No.3 *Except*	5-39=391/93, 5-37=175/185, 6-37=92/295,
OTHERS	2x4 SP No.3	6-36=133/285, 7-36=318/111,
BRACING		36-43=112/201, 43-44=135/248,
TOP CHORD	Structural wood sheathing directly applied or 4-6-4 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-10, 19-20.	10-44=148/271, 10-35=152/436,
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	35-45=347/221, 45-46=337/214,
WEBS	1 Row at midpt 5-37, 6-36, 7-36, 36-44, 8-43, 11-45	13-46=301/194, 13-34=102/84,
JOINTS	1 Brace at Jt(s): 44, 46	34-47=30/234, 47-48=32/239,
REACTIONS	(size) 2=8-5-8, 22=0-3-8, 27=0-3-8, 28=2-5-8, 29=2-5-8, 30=0-3-8, 40=0-3-8, 41=8-5-8, 42=8-5-8, 52=8-5-8	16-48=24/235, 16-31=451/13,
	Max Horiz 2=229 (LC 11), 52=229 (LC 11)	31-49=38/1319, 49-50=50/1327,
	Max Uplift 2=-127 (LC 66), 22=-141 (LC 9), 28=-121 (LC 13), 29=-136 (LC 13), 41=-202 (LC 68), 42=60 (LC 66), 52=-127 (LC 66)	19-50=39/1235, 19-28=1311/137,
	Max Grav 2=347 (LC 46), 22=530 (LC 51), 27=177 (LC 50), 28=1258 (LC 41), 29=568 (LC 41), 30=234 (LC 41), 40=128 (LC 7), 41=1406 (LC 41), 42=372 (LC 46)	19-51=181/809, 25-51=177/795,
FORCES	(lb) - Maximum Compression/Maximum Tension	20-25=101/64, 8-43=60/24, 9-44=23/18,
		11-45=14/9, 12-46=39/23, 14-47=10/3,
		15-48=83/61, 32-48=60/48, 17-49=21/28,
		18-50=408/122, 29-50=706/157,
		26-51=8/31, 21-24=89/43

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



April 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1100 Carolina Way-Roof-BB-2250	I45815324
21040035-A	A08	Piggyback Base Girder	1	1	Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:41

Page: 2

ID:UtmO3JX3vbbaoqow6Z_bUKzNyPn-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

- 2) Wind: ASCE 7-10; 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
- 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) TCELL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber
DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow:
Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B;
Fully Exp.; Ct=1.10
- 5) Unbalanced snow loads have been considered for this
design.
- 6) This truss has been designed for greater of min roof live
load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on
overhangs non-concurrent with other live loads.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members, with BCDL = 10.0psf.
- 12) N/A

- 13) This truss is designed in accordance with the 2015
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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d
(0.148"x3.25") toe-nails per NDS guidelines.
- 16) Hanger(s) or other connection device(s) shall be
provided sufficient to support concentrated load(s) 205
lb down and 41 lb up at 39-6-12 on bottom chord. The
design/selection of such connection device(s) is the
responsibility of others.
- 17) In the LOAD CASE(S) section, loads applied to the face
of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate
Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 4-6=-60, 6-10=-60, 10-19=-60,
19-20=-60, 20-23=-60, 52-55=-20
Concentrated Loads (lb)
Vert: 20=-47 (F), 18=-102 (F), 29=-29 (F), 27=-23
(F), 67=-43 (F), 71=-205 (F)

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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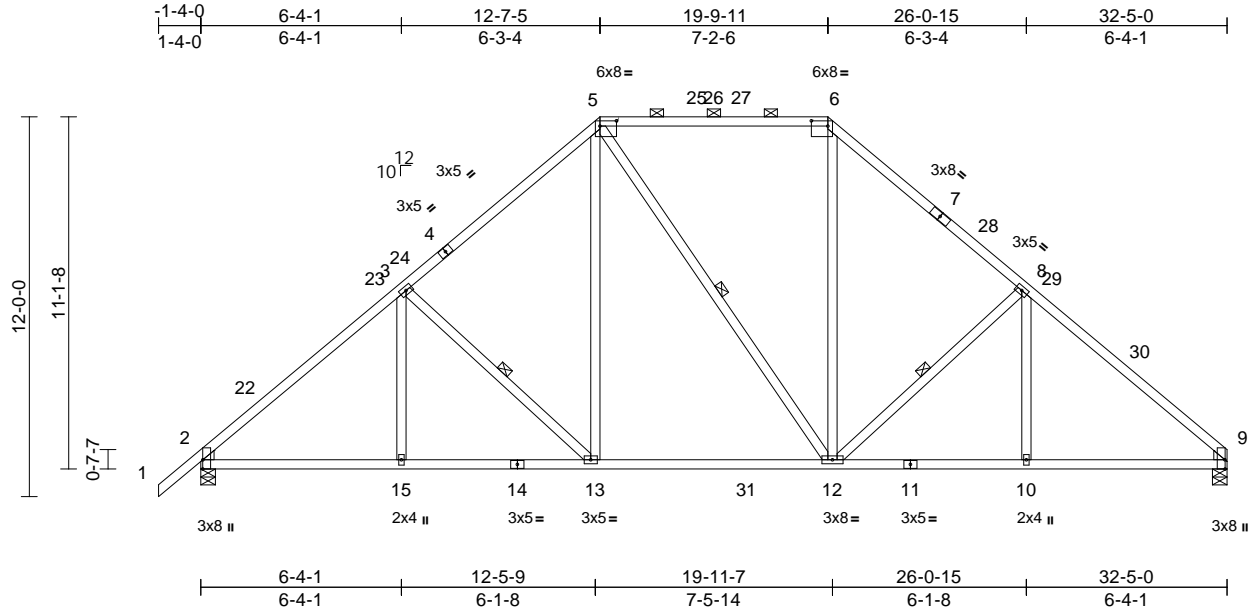
Job 21040035-A	Truss B01	Truss Type Piggyback Base	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815325
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:43

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ID:10THX5a46XtbZCPWZWDqzzNyN8-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f



Scale = 1:72.8

Plate Offsets (X, Y): [2:0-3-8,Edge], [5:0-6-4,0-2-0], [6:0-6-4,0-2-0], [9:0-3-8,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	0.77	Vert(LL)	-0.15	12-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.25	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.07	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 202 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 5-6:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 13-5,12-5,12-6:2x4 SP No.2
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-13, 5-12, 8-12

REACTIONS (size) 2=0-5-8, 9=0-5-8
Max Horiz 2=279 (LC 11)
Max Uplift 2=-169 (LC 14), 9=-139 (LC 15)
Max Grav 2=1519 (LC 37), 9=1436 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/51, 2-22=-1917/234, 22-23=-1713/265, 3-23=-1682/268, 3-24=-1561/287, 4-24=-1532/292, 4-5=-1355/336, 5-25=-1031/329, 25-26=-1031/329, 26-27=-1031/329, 6-27=-1031/329, 6-7=-1359/339, 7-28=-1395/311, 8-28=-1564/295, 8-29=-1690/279, 29-30=-1720/277, 9-30=-1925/253
BOT CHORD 2-15=-216/1405, 14-15=-216/1405, 13-14=-216/1405, 13-31=-73/1030, 12-31=-73/1030, 11-12=-107/1402, 10-11=-107/1402, 9-10=-107/1402
WEBS 3-15=0/224, 3-13=-502/244, 5-13=-76/598, 5-12=-161/173, 6-12=-57/528, 8-12=-516/250, 8-10=0/225

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; 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 (2) 1-4-0 to 1-10-14, Interior (1) 1-10-14 to 8-0-5, Exterior (2) 8-0-5 to 24-4-11, Interior (1) 24-4-11 to 29-2-2, Exterior (2) 29-2-2 to 32-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 26, 2021

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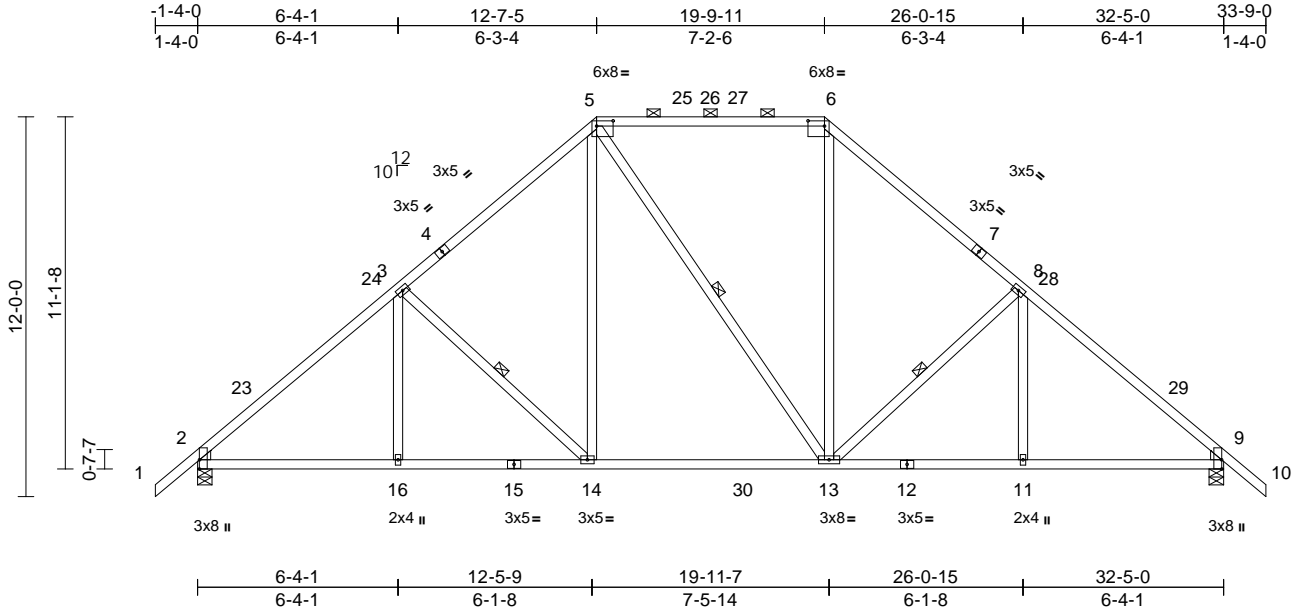
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss B02	Truss Type Piggyback Base	Qty 6	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815326
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:44
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Page: 1



Scale = 1:72.8

Plate Offsets (X, Y): [2:0-3-8,Edge], [5:0-6-4,0-2-0], [6:0-6-4,0-2-0], [9:0-3-8,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	0.81	Vert(LL)	-0.15	13-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.26	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.07	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 204 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 5-6:2x4 SP 2400F
2.0E, 1-4,7-10:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 14-5,13-5,13-6:2x4 SP No.2
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-14, 5-13, 8-13

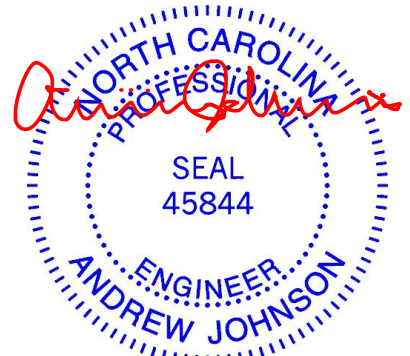
REACTIONS (size) 2=0-5-8, 9=0-5-8
Max Horiz 2=-288 (LC 12)
Max Uplift 2=-168 (LC 14), 9=-168 (LC 15)
Max Grav 2=1517 (LC 37), 9=1517 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/51, 2-23=-1913/230, 23-24=-1708/262, 3-24=-1678/264, 3-4=-1558/288, 4-5=-1352/332, 5-25=-1029/325, 25-26=-1029/325, 26-27=-1029/325, 6-27=-1029/325, 6-7=-1353/332, 7-8=-1558/288, 8-28=-1678/264, 28-29=-1708/262, 9-29=-1913/230, 9-10=0/51
BOT CHORD 2-16=-196/1415, 15-16=-196/1415, 14-15=-196/1415, 14-30=-62/1037, 13-30=-62/1037, 12-13=-35/1389, 11-12=-35/1389, 9-11=-35/1389
WEBS 3-16=0/223, 3-14=-500/243, 5-14=-75/596, 5-13=-170/171, 6-13=-56/525, 8-13=-503/244, 8-11=0/223

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; 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 (2) 1-4-0 to 1-10-14, Interior (1) 1-10-14 to 8-0-5, Exterior (2) 8-0-5 to 24-4-11, Interior (1) 24-4-11 to 30-6-2, Exterior (2) 30-6-2 to 33-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



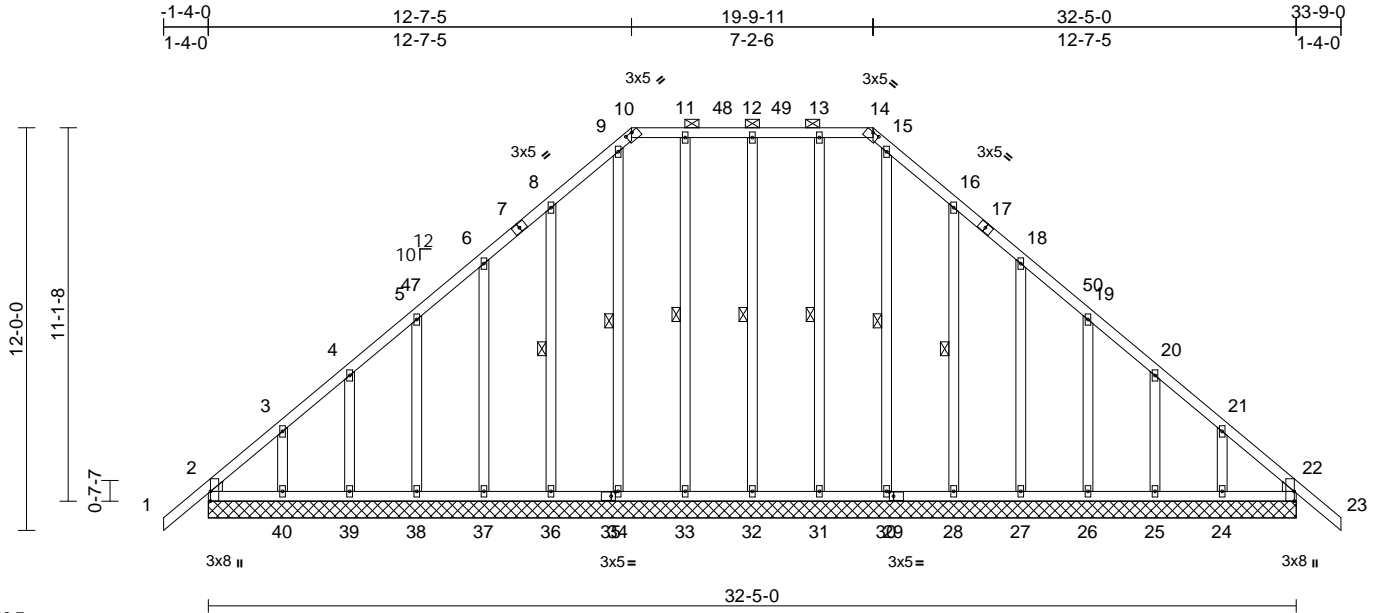
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss B03	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815327
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:44
ID:z9QUyVMLfoHnZQZB3JmnuZnyOi-RfC?PsB70Hq3NSgPqnL8w3uTxhGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:68.7

Plate Offsets (X, Y): [2:0-3-8,Edge], [10:0-2-8,0-0-3], [14:0-2-8,0-0-3], [22:0-3-8,Edge], [29:0-1-8,0-1-8], [35:0-1-8,0-1-8]

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	22	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 270 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3 *Except*
 32-12,33-11,34-9,31-13,30-15:2x4 SP No.2

WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or
 6-0-0 oc purlins, except
 2-0-0 oc purlins (6-0-0 max.): 10-14.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
 bracing.

WEBS 1 Row at midpt 12-32, 11-33, 9-34, 8-36,
 13-31, 15-30, 16-28

REACTIONS (size)

2=32-5-0, 22=32-5-0, 24=32-5-0,
 25=32-5-0, 26=32-5-0, 27=32-5-0,
 28=32-5-0, 30=32-5-0, 31=32-5-0,
 32=32-5-0, 33=32-5-0, 34=32-5-0,
 36=32-5-0, 37=32-5-0, 38=32-5-0,
 39=32-5-0, 40=32-5-0, 41=32-5-0,
 44=32-5-0

Max Horiz 2=-288 (LC 12), 41=-288 (LC 12)
 Max Uplift 2=-96 (LC 10), 22=-28 (LC 11),
 24=-122 (LC 15), 25=-72 (LC 15),
 26=-86 (LC 15), 27=-80 (LC 15),
 28=-103 (LC 15), 31=-25 (LC 11),
 32=-40 (LC 10), 33=-24 (LC 11),
 34=-8 (LC 11), 36=-99 (LC 14),
 37=-80 (LC 14), 38=-87 (LC 14),
 39=-69 (LC 14), 40=-132 (LC 14),
 41=-96 (LC 10), 44=-28 (LC 11)

Max Grav 2=246 (LC 25), 22=202 (LC 27),
 24=189 (LC 47), 25=172 (LC 25),
 26=204 (LC 47), 27=236 (LC 37),
 28=242 (LC 47), 30=180 (LC 37),
 31=230 (LC 36), 32=237 (LC 36),
 33=230 (LC 36), 34=205 (LC 51),
 36=241 (LC 37), 37=236 (LC 37),
 38=205 (LC 45), 39=169 (LC 28),
 40=200 (LC 45), 41=246 (LC 25),
 44=202 (LC 27)

FORCES (lb) - Maximum Compression/Maximum
 Tension

TOP CHORD 1-2=0/51, 2-3=-299/230, 3-4=-207/189,
 4-5=-159/162, 5-47=-150/133,
 6-47=-123/147, 6-7=-133/170, 7-8=-106/184,
 8-9=-206/242, 9-10=-169/195,
 10-11=-177/217, 11-48=-177/217,
 12-48=-177/217, 12-49=-177/217,
 13-49=-177/217, 13-14=-177/217,
 14-15=-169/195, 15-16=-206/242,
 16-17=-106/153, 17-18=-129/139,
 18-50=-52/75, 19-50=-78/61, 19-20=-85/67,
 20-21=-143/95, 21-22=-232/173, 22-23=0/51

BOT CHORD 2-40=-164/245, 39-40=-115/245,
 38-39=-115/245, 37-38=-115/245,
 36-37=-115/245, 35-36=-115/245,
 34-35=-115/245, 33-34=-115/245,
 32-33=-115/245, 31-32=-115/245,
 30-31=-115/245, 29-30=-115/245,
 28-29=-115/245, 27-28=-115/245,
 26-27=-115/245, 25-26=-115/245,
 24-25=-115/245, 22-24=-115/245

WEBS

12-32=-197/78, 11-33=-190/48,
 9-34=-165/36, 8-36=-201/123,
 6-37=-196/105, 5-38=-164/108,
 4-39=-135/102, 3-40=-171/124,
 13-31=-190/49, 15-30=-140/13,
 16-28=-202/126, 18-27=-196/105,
 19-26=-164/108, 20-25=-135/104,
 21-24=-171/120

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



April 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1100 Carolina Way-Roof-BB-2250	I45815327
21040035-A	B03	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:44
ID:z9QUYvMLfoHnZQZBfZjmnuzNyOi-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 2

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior
zone and C-C Corner (3) -1-4-0 to 2-2-8, Exterior (2)
2-2-8 to 9-4-7, Corner (3) 9-4-7 to 15-10-3, Exterior (2)
15-10-3 to 16-6-13, Corner (3) 16-6-13 to 23-0-9,
Exterior (2) 23-0-9 to 30-6-2, Corner (3) 30-6-2 to 33-9-0
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) TC LL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber
DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow:
Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B;
Fully Exp.; Ct=1.10
- 5) Unbalanced snow loads have been considered for this
design.
- 6) This truss has been designed for greater of min roof live
load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on
overhangs non-concurrent with other live loads.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2-0-0 oc.
- 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) N/A

- 14) Beveled plate or shim required to provide full bearing
surface with truss chord at joint(s) 2, 41.
- 15) This truss is designed in accordance with the 2015
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

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



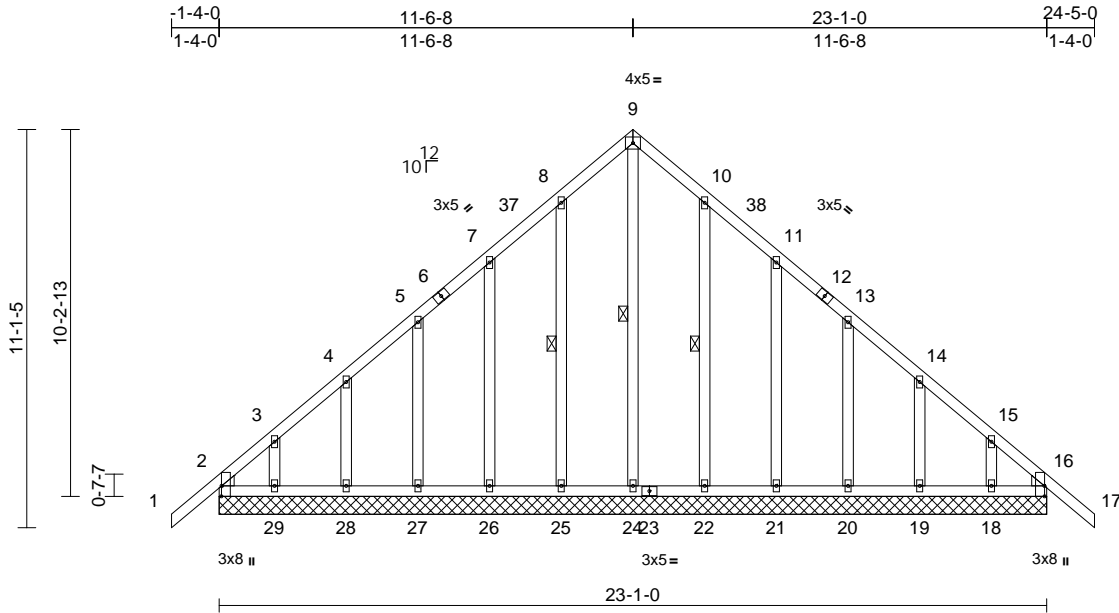
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss C01	Truss Type Common Supported Gable	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815328
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:45
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Page: 1



Scale = 1:64.3

Plate Offsets (X, Y): [2:0-3-8,Edge], [16:0-3-8,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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	16	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 170 lb	FT = 20%

LUMBER	TOP CHORD	1-2=0/51, 2-3=-281/199, 3-4=-204/170, 4-5=-150/139, 5-6=-128/107, 6-7=-103/121, 7-37=-126/164, 8-37=-113/170, 8-9=-189/219, 9-10=-189/219, 10-38=-113/146, 11-38=-126/138, 11-12=-40/69, 12-13=-72/55, 13-14=-90/64, 14-15=-154/99, 15-16=-228/168, 16-17=0/51	4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
TOP CHORD	2x4 SP No.2		
BOT CHORD	2x4 SP No.2		
OTHERS	2x4 SP No.3		
WEDGE	Left: 2x4 SP No.3 Right: 2x4 SP No.3		
BRACING	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.	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.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.		7) All plates are 2x4 MT20 unless otherwise indicated.
WEBS	1 Row at midpt 9-24, 8-25, 10-22		8) Gable requires continuous bottom chord bearing.
REACTIONS	(size) 2=23-1-0, 16=23-1-0, 18=23-1-0, 19=23-1-0, 20=23-1-0, 21=23-1-0, 22=23-1-0, 24=23-1-0, 25=23-1-0, 26=23-1-0, 27=23-1-0, 28=23-1-0, 29=23-1-0, 30=23-1-0, 34=23-1-0	WEBS 9-24=-215/122, 8-25=-191/103, 7-26=-147/111, 5-27=-142/106, 4-28=-143/108, 3-29=-148/108, 10-22=-191/100, 11-21=-147/112, 13-20=-142/106, 14-19=-143/108, 15-18=-148/103	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) N/A
Max Horiz	2=-265 (LC 12), 30=-265 (LC 12)		
Max Uplift	2=-90 (LC 10), 16=-33 (LC 11), 18=-104 (LC 15), 19=-80 (LC 15), 20=-83 (LC 15), 21=-88 (LC 15), 22=-76 (LC 15), 25=-79 (LC 14), 26=-86 (LC 14), 27=-84 (LC 14), 28=-78 (LC 14), 29=-114 (LC 14), 30=-90 (LC 10), 34=-33 (LC 11)		
Max Grav	2=230 (LC 25), 16=190 (LC 27), 18=140 (LC 25), 19=182 (LC 25), 20=174 (LC 29), 21=176 (LC 25), 22=231 (LC 22), 24=231 (LC 15), 25=231 (LC 21), 26=174 (LC 24), 27=174 (LC 24), 28=180 (LC 28), 29=151 (LC 28), 30=230 (LC 25), 34=190 (LC 27)		
FORCES	(lb) - Maximum Compression/Maximum Tension	NOTES 1) Unbalanced roof live loads have been considered for this design. 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-4-0 to 1-6-8, Exterior (2) 1-6-8 to 8-6-8, Corner (3) 8-6-8 to 14-6-8, Exterior (2) 14-6-8 to 21-5-0, Corner (3) 21-5-0 to 24-5-0 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.	



April 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss C01	Truss Type Common Supported Gable	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815328
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Carter Components (Sanford), Sanford, NC - 27332,

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ID:jm6DaOoYDZW5q7jf8pq9HzNylz-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f

Page: 2

- 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 30.
- 14) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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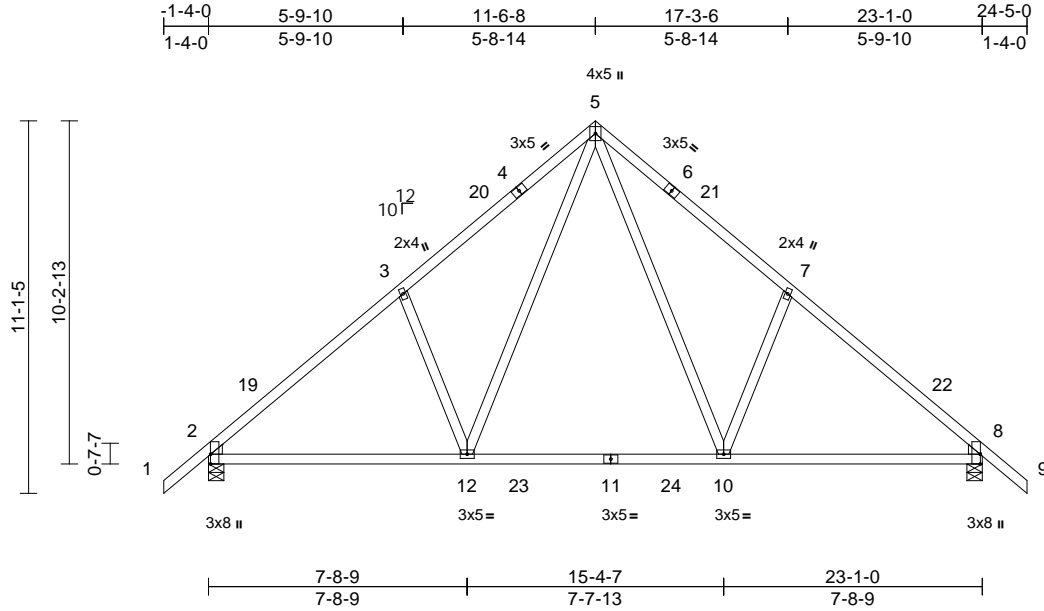
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss C02	Truss Type Common	Qty 6	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815329
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:68.7

Plate Offsets (X, Y): [2:0-3-8,Edge], [8:0-3-8,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	0.55	Vert(LL)	-0.19	10-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.26	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 132 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 10-7,12-3:2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

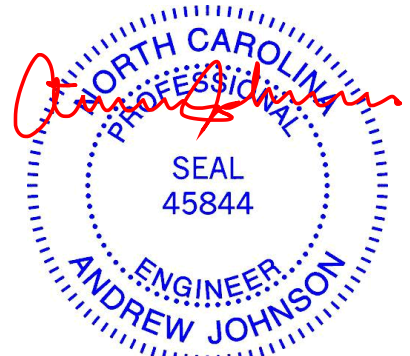
REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=-265 (LC 12)
Max Uplift 2=-114 (LC 14), 8=-114 (LC 15)
Max Grav 2=1003 (LC 1), 8=1003 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/51, 2-19=-1144/121, 3-19=-981/158, 3-20=-1055/243, 4-20=-988/246, 4-5=-984/266, 5-6=-984/266, 6-21=-988/246, 7-21=-1056/243, 7-22=-981/158, 8-22=-1144/121, 8-9=0/51
BOT CHORD 2-12=-145/967, 12-23=0/636, 11-23=0/636, 11-24=0/636, 10-24=0/636, 8-10=-19/838
WEBS 5-10=-182/586, 7-10=-364/273, 5-12=-182/586, 3-12=-364/273

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

- Wind: ASCE 7-10; 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 (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 8-6-8, Exterior (2) 8-6-8 to 14-6-8, Interior (1) 14-6-8 to 21-5-0, Exterior (2) 21-5-0 to 24-5-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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 RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



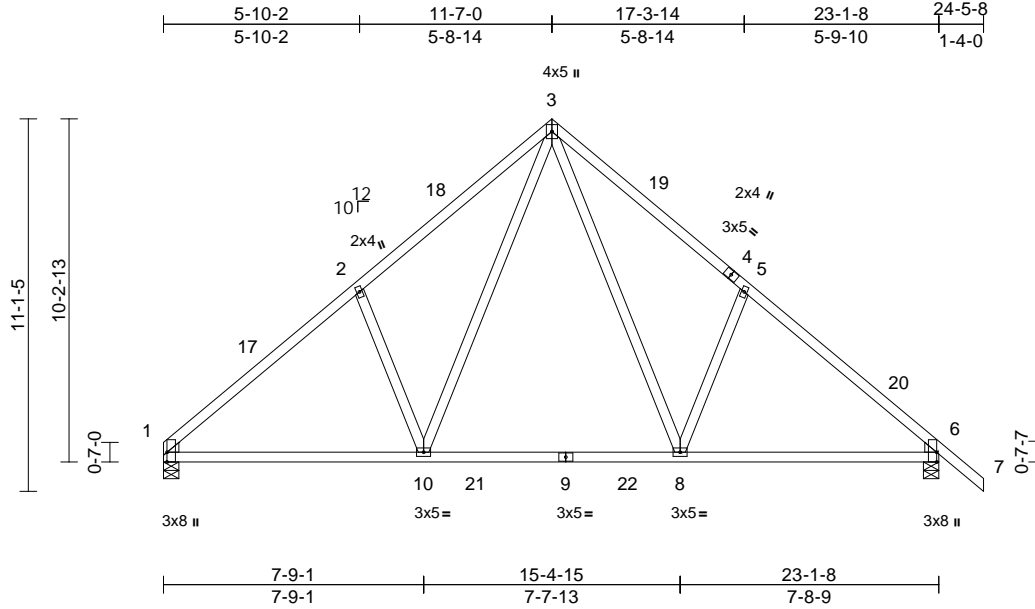
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss C05	Truss Type Common	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815332
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:47
ID:vVRx1ARChig9BGRmNKKE6zNyHC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:68.7

Plate Offsets (X, Y): [1:0-3-8,Edge], [6:0-3-8,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	0.53	Vert(LL)	-0.19	8-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.25	8-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 130 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 8-5,10-2:2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

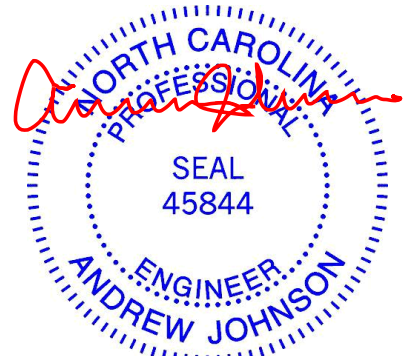
REACTIONS (size) 1=0-5-8, 6=0-5-8
Max Horiz 1=-257 (LC 12)
Max Uplift 1=-86 (LC 14), 6=-115 (LC 15)
Max Grav 1=923 (LC 1), 6=1007 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-17=-1158/146, 2-17=-991/170,
2-18=-1072/259, 3-18=-992/282,
3-19=-989/270, 4-19=-1045/249,
4-5=-1060/226, 5-20=-986/163,
6-20=-1150/126, 6-7=0/51
BOT CHORD 1-10=-162/982, 10-21=0/640, 9-21=0/640,
9-22=0/640, 8-22=0/640, 6-8=-20/842
WEBS 3-8=-182/584, 5-8=-364/273, 3-10=-189/605,
2-10=-366/276

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

- Wind: ASCE 7-10; 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 (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 8-7-0, Exterior (2) 8-7-0 to 14-7-0, Interior (1) 14-7-0 to 21-5-8, Exterior (2) 21-5-8 to 24-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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 RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



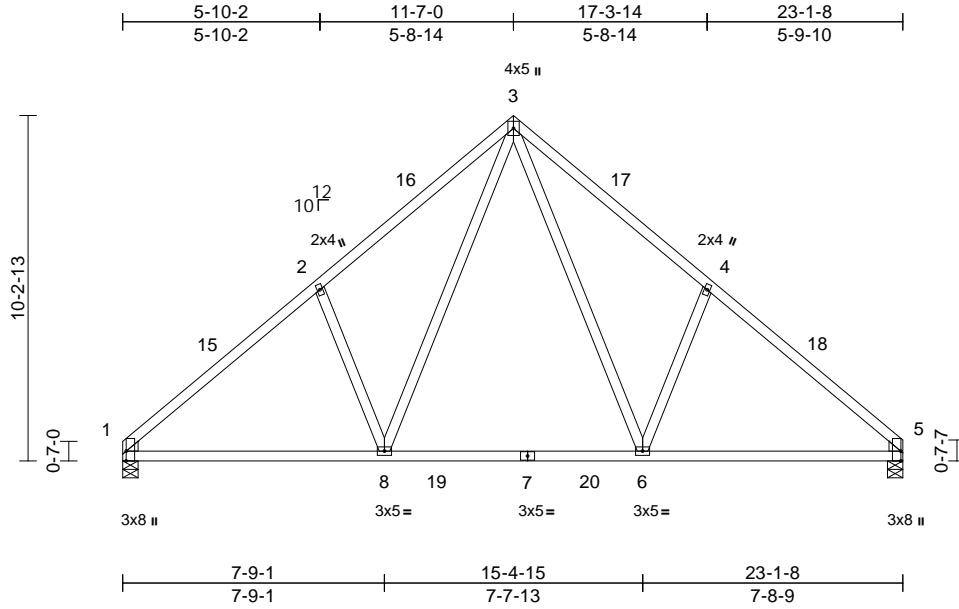
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss C06	Truss Type Common	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815333
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:47
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Page: 1



Scale = 1:68.3

Plate Offsets (X, Y): [1:0-3-8,Edge], [5:0-3-8,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	0.50	Vert(LL)	-0.19	6-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.25	6-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 127 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.2 *Except* 6-4,8-2:2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-6 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=0-5-8, 5=0-5-8
 Max Horiz 1=239 (LC 11)
 Max Uplift 1=-86 (LC 14), 5=-86 (LC 15)
 Max Grav 1=925 (LC 1), 5=925 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

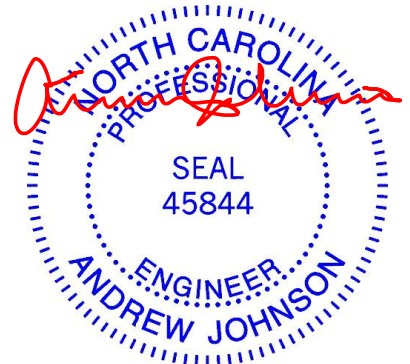
TOP CHORD 1-15=-1161/150, 2-15=-994/174,
 2-16=-1074/265, 3-16=-991/286,
 3-17=-987/285, 4-17=-1069/264,
 4-18=-991/174, 5-18=-1158/150
 BOT CHORD 1-8=-176/970, 8-19=0/628, 7-19=0/628,
 7-20=0/628, 6-20=0/628, 5-6=-40/833
 WEBS 3-6=-188/595, 4-6=-363/276, 3-8=-189/604,
 2-8=-366/276

NOTES

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

- Wind: ASCE 7-10; 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 (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 8-7-0, Exterior (2) 8-7-0 to 14-7-0, Interior (1) 14-7-0 to 20-1-8, Exterior (2) 20-1-8 to 23-1-8 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 5. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

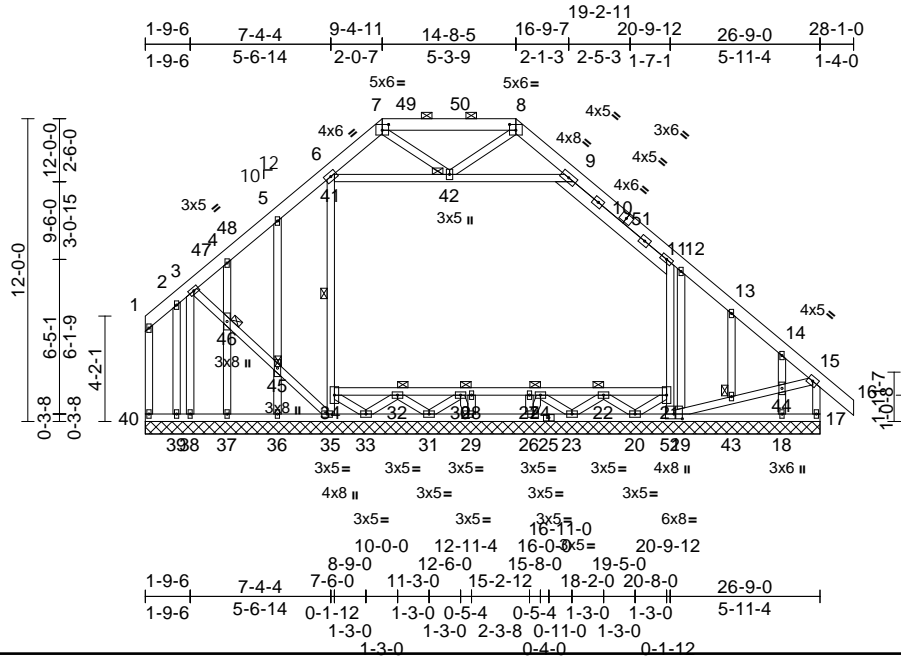
Job 21040035-A	Truss D01	Truss Type Attic Supported Gable	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250	145815334
					Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:48

Page: 1

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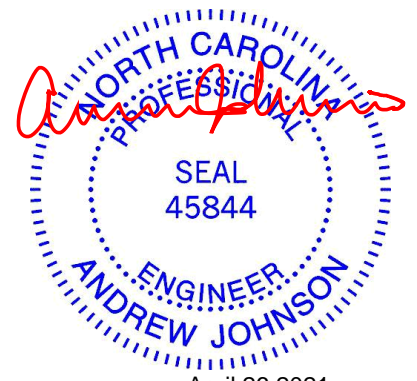


Scale = 1:91.3

Plate Offsets (X, Y): [7:0-3-0,0-2-12], [8:0-3-0,0-2-12], [19:0-4-0,0-2-4]

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	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.01	17	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 302 lb	FT = 20%

LUMBER	TOP CHORD	1-2=-105/122, 2-3=-182/111, 3-47=-547/144, 4-47=-489/154, 4-48=-657/168, 5-48=-568/180, 5-6=-636/225, 6-7=-558/155, 7-49=-488/132, 49-50=-488/132, 8-50=-488/132, 8-9=-591/150, 9-10=-651/203, 10-51=-677/180, 11-51=-789/176, 11-12=-507/77, 12-13=-551/55, 13-14=-656/40, 14-15=-642/50, 15-16=0/57, 15-17=-692/30, 1-40=-94/100	2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Corner (3) 4-4-15 to 7-6-1, Exterior (2) 7-6-1 to 10-7-15, Corner (3) 10-7-15 to 21-11-8, Exterior (2) 21-11-8 to 29-4-3, Corner (3) 29-4-3 to 32-4-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
TOP CHORD	2x6 SP No.2		
BOT CHORD	2x4 SP No.2		
WEBS	2x4 SP No.3 *Except* 41-9:2x4 SP No.2		
OTHERS	2x4 SP No.3		
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.): 7-8.		
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-19,17-18.		
WEBS	1 Row at midpt 34-41		
JOINTS	1 Brace at Jt(s): 42, 32, 22, 30, 24, 43, 45, 46		
REACTIONS	(size) 17=26-9-0, 18=26-9-0, 19=26-9-0, 20=26-9-0, 23=26-9-0, 26=26-9-0, 29=26-9-0, 31=26-9-0, 33=26-9-0, 35=26-9-0, 36=26-9-0, 37=26-9-0, 38=26-9-0, 39=26-9-0, 40=26-9-0		
	Max Horiz 40=340 (LC 10)		
	Max Uplift 17=35 (LC 11), 18=-101 (LC 15), 19=-215 (LC 15), 35=-299 (LC 42), 36=-94 (LC 14), 37=-36 (LC 14), 38=-135 (LC 10), 39=-50 (LC 10), 40=-29 (LC 15)		
	Max Grav 17=694 (LC 38), 18=187 (LC 26), 19=467 (LC 48), 20=359 (LC 44), 23=244 (LC 21), 26=263 (LC 21), 29=263 (LC 21), 31=243 (LC 21), 33=261 (LC 21), 35=304 (LC 10), 36=225 (LC 46), 37=303 (LC 38), 38=517 (LC 38), 39=322 (LC 38), 40=63 (LC 25)		
FORCES	(lb) - Maximum Compression/Maximum Tension		
NOTES	1) Unbalanced roof live loads have been considered for this design.		



April 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1100 Carolina Way-Roof-BB-2250	I45815334
21040035-A	D01	Attic Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:48
 ID:WHOxV3AtIT52?oXCabpZZPzNyFw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 2

- 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, with BCDL = 10.0psf.
- 14) Ceiling dead load (5.0 psf) on member(s). 9-11, 41-42, 9-42; Wall dead load (5.0psf) on member(s).34-41, 11-21
- 15) N/A

- 16) N/A

- 17) This truss is designed in accordance with the 2015 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

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



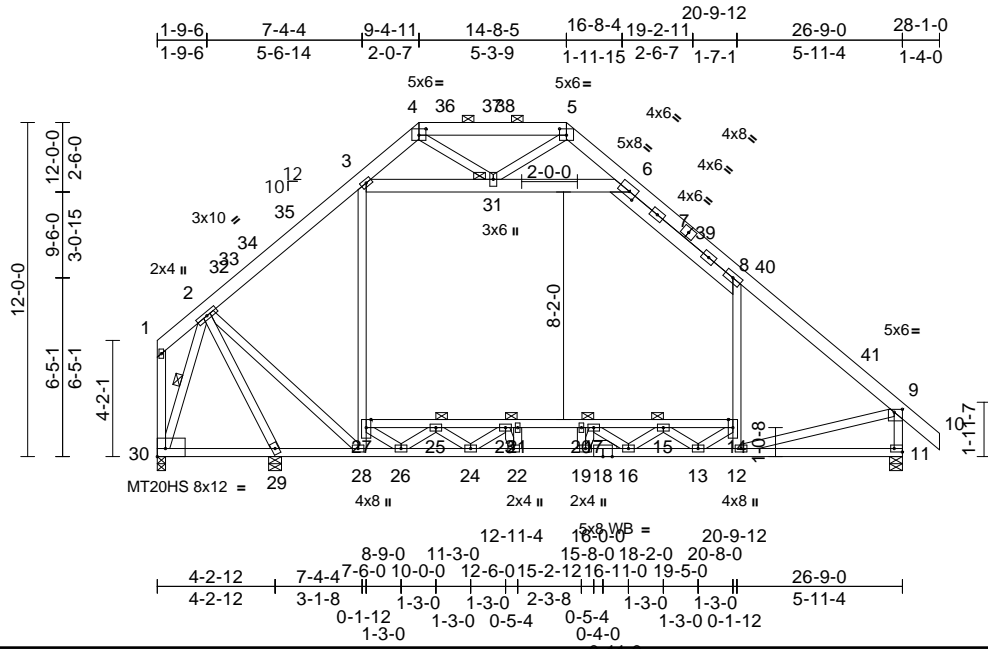
818 Soundside Road
 Edenton, NC 27932

Job 21040035-A	Truss D02	Truss Type Attic	Qty 3	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815335
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:50
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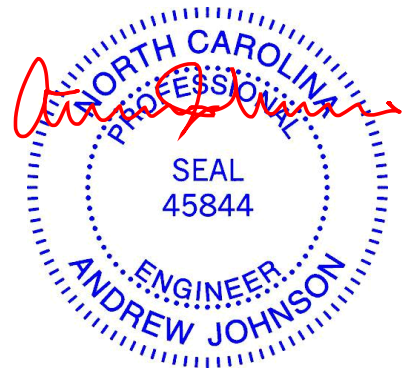


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Plate Offsets (X, Y): [4:0-3-0,0-2-12], [5:0-3-0,0-2-12], [6:0-3-2,0-2-4], [9:0-3-8,0-1-4], [11:Edge,0-1-8], [30:Edge,0-3-8]

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	0.59	Vert(LL)	-0.21	15-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.40	15-17	>664	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.06	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.13	14-27	>999	360		
BCDL	10.0											
											Weight: 276 lb	FT = 20%

LUMBER		BOT CHORD			
TOP CHORD	2x6 SP No.2 *Except* 5-7,7-10:2x6 SP 2400F 2.0E	29-30=0/745, 28-29=-185/1046, 26-28=0/1229, 24-26=0/2564, 22-24=0/3509, 19-22=0/3627, 18-19=0/3594, 16-18=0/3594, 13-16=0/2906, 12-13=0/1452, 11-12=31/208, 25-27=-604/0, 23-25=-2010/0, 21-23=-2565/0, 20-21=-2565/0, 17-20=-2565/0, 15-17=-2200/0, 14-15=-1026/0			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.
BOT CHORD	2x4 SP No.1 *Except* 27-14:2x4 SP No.2	2-29=-654/1115, 2-28=-83/754, 27-28=-308/318, 3-27=-118/830, 12-14=-332/69, 8-14=0/673, 3-31=-1519/214, 6-31=-1702/132, 9-12=0/1210, 2-30=-2575/344, 26-27=0/888, 13-14=0/1176, 25-26=-1169/0, 13-15=-1014/0, 24-25=0/661, 15-16=0/515, 23-24=-568/0, 16-17=-431/0, 22-23=0/322, 17-19=-171/01, 21-22=-234/0, 19-20=-77/26, 4-31=-62/73, 5-31=0/272			6) Provide adequate drainage to prevent water ponding. 7) All plates are MT20 plates unless otherwise indicated. 8) All plates are 3x5 MT20 unless otherwise indicated. 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) Ceiling dead load (5.0 psf) on member(s). 6-8, 3-31, 6-31; Wall dead load (5.0psf) on member(s).3-27, 8-14 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 25-27, 23-25, 21-23, 20-21, 17-20, 15-17, 14-15 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1084 lb uplift at joint 29.
WEBS	2x4 SP No.3 *Except* 3-6:2x6 SP No.2, 11-9:2x4 SP No.2				
OTHERS	2x4 SP No.3				
BRACING		WEBS			
TOP CHORD	Structural wood sheathing directly applied or 5-2-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.				
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.				
WEBS	1 Row at midpt 2-30				
JOINTS	1 Brace at Jt(s): 25, 15, 23, 17, 31				
REACTIONS	(size) 11=0-5-8, 29=0-5-8, 30=0-3-8 Max Horiz 30=-355 (LC 10) Max Uplift 29=-1084 (LC 48), 30=-371 (LC 15) Max Grav 11=2056 (LC 48), 29=646 (LC 10), 30=2642 (LC 48)	NOTES			
		1) Unbalanced roof live loads have been considered for this design.			
		2) Wind: ASCE 7-10; 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 (2) 4-4-15 to 7-4-15, Interior (1) 7-4-15 to 9-5-0, Exterior (2) 9-5-0 to 23-2-6, Interior (1) 23-2-6 to 29-4-3, Exterior (2) 29-4-3 to 32-4-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60			
		3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10			
		4) Unbalanced snow loads have been considered for this design.			
FORCES	(lb) - Maximum Compression/Maximum Tension				
TOP CHORD	1-2=-144/89, 2-32=-1952/174, 32-33=-1916/177, 33-34=-1904/181, 34-35=-1883/182, 3-35=-1736/209, 3-4=-465/139, 4-36=-343/122, 36-37=-343/122, 37-38=-343/122, 5-38=-343/122, 5-6=-451/160, 6-7=-1296/163, 7-39=-1493/139, 8-39=-1565/124, 8-40=-1854/0, 40-41=-1881/0, 9-41=-2048/0, 9-10=0/57, 9-11=-1968/24, 1-30=-160/59				



April 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1100 Carolina Way-Roof-BB-2250	I45815335
21040035-A	D02	Attic	3	1	Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:50
 ID:BZvAG6ahRc9pMNFRRktE7MzNyCp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcD0i7J4zJC?f

Page: 2

- 14) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 30. This connection is for uplift only and does not consider lateral forces.
- 15) This truss is designed in accordance with the 2015 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) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 18) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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818 Soundside Road
 Edenton, NC 27932

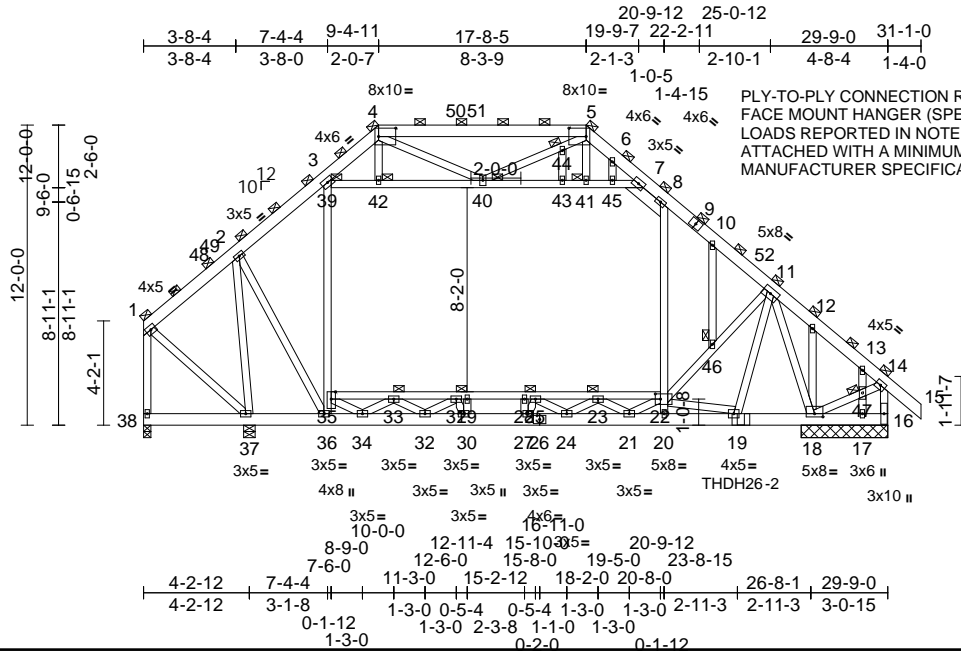
Job 21040035-A	Truss D03	Truss Type Attic Girder	Qty 1	Ply 4	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815336
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:51

Page: 1

ID:ZE_K?yhTDOczsG74U8WgJGzNyA4-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRcDoi7J4zJC?f



Scale = 1:92.1

Plate Offsets (X, Y): [4:0-8-4,0-4-0], [5:0-8-4,0-4-0], [18:0-4-0,0-1-8], [22:0-2-8,0-2-8]

Loading	(psf)	Spacing	6-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.08	28-29	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.14	28-29	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.02	18	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.06	22-35	>999	360		
BCDL	10.0											
											Weight: 1402 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 35-22:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 39-7:2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheeted: Spacing > 2-0-0).
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

JOINTS
1 Brace at Jt(s): 5, 39, 14, 1, 40, 41, 4, 42, 33, 23, 31, 25, 44, 46, 47

REACTIONS (size)
16=3-5-8, 17=3-5-8, 18=3-5-8, 37=0-5-8, 38=0-3-8
Max Horiz 38=1057 (LC 10)
Max Uplift 16=3230 (LC 28), 17=1805 (LC 28), 37=762 (LC 57), 38=166 (LC 8)
Max Grav 16=174 (LC 13), 17=377 (LC 13), 18=14061 (LC 28), 37=2687 (LC 44), 38=4047 (LC 28)

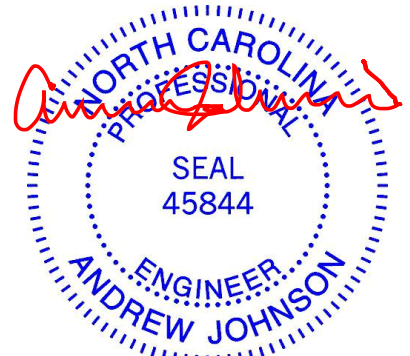
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-48=-2861/162, 48-49=-2606/171, 2-49=-2557/182, 2-3=-3765/0, 3-4=-2607/394, 4-50=-2279/336, 50-51=-2279/336, 5-51=-2279/336, 5-6=-2436/478, 6-7=-2746/461, 7-8=-3037/131, 8-9=-3691/0, 9-10=-3839/0, 10-52=-3669/0, 11-52=-3776/0, 11-12=0/3620, 12-13=0/4636, 13-14=0/3854, 14-15=0/170, 14-16=0/3564, 1-38=-3881/209

BOT CHORD
37-38=-862/970, 36-37=0/1840, 34-36=0/2552, 32-34=0/5826, 30-32=0/7872, 27-30=0/7926, 26-27=0/7503, 24-26=0/7503, 21-24=0/4756, 20-21=-1236/1617, 19-20=-1102/1679, 18-19=-669/514, 17-18=-131/46, 16-17=-131/46, 33-35=-1105/0, 31-33=-4795/0, 29-31=-5703/0, 28-29=-5703/0, 25-28=-5703/0, 23-25=-3661/0, 22-23=-485/1089

WEBS
2-37=-3785/188, 2-36=0/2380, 35-36=-927/248, 35-39=-358/1223, 3-39=-115/1179, 20-22=0/731, 8-22=-295/1346, 39-42=-1783/0, 40-42=-1783/0, 40-43=-1867/0, 41-43=-1867/0, 41-45=-1867/0, 7-45=-1870/0, 18-47=-3609/40, 14-47=-3638/40, 1-37=-276/2880, 4-40=-61/233, 40-44=-3/254, 5-44=-1/279, 5-41=-177/158, 4-42=0/211, 34-35=0/1927, 21-22=0/3464, 33-34=-3134/0, 21-23=-3542/0, 32-33=0/1516, 23-24=0/1965, 31-32=-1106/0, 24-25=-2041/0, 30-31=-70/324, 25-27=0/1019, 29-30=-312/9, 27-28=-611/0, 11-19=0/3173, 19-22=-736/1045, 22-46=0/3363, 11-46=0/3702, 11-18=-9512/0, 43-44=0/73, 6-45=-89/316, 10-46=-491/0, 12-18=-1829/0, 13-47=0/922, 17-47=0/862

NOTES
1) N/A

- 4-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 oc, 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
Attach TC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.



April 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss D03	Truss Type Attic Girder	Qty 1	Ply 4	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815336
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:51

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ID:ZE_K?yhTDOCzG74U8WGjGzNyA4-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?

- 5) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TC DL=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
- 6) 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.
- 7) T CLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber
DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow:
Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B;
Fully Exp.; Ct=1.10
- 8) Unbalanced snow loads have been considered for this
design.
- 9) 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.
- 10) Provide adequate drainage to prevent water ponding.
- 11) All plates are 2x4 MT20 unless otherwise indicated.
- 12) Truss to be fully sheathed from one face or securely
braced against lateral movement (i.e. diagonal web).
- 13) Gable studs spaced at 2-0-0 oc.
- 14) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 15) * 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.
- 16) Ceiling dead load (5.0 psf) on member(s). 7-8, 39-42,
40-42, 40-43, 41-43, 41-45, 7-45; Wall dead load
(5.0psf) on member(s).35-39, 8-22
- 17) Bottom chord live load (40.0 psf) and additional bottom
chord dead load (5.0 psf) applied only to room. 33-35,
31-33, 29-31, 28-29, 25-28, 23-25, 22-23
- 18) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 762 lb uplift at
joint 37, 3230 lb uplift at joint 16 and 1805 lb uplift at
joint 17.
- 19) One RT7A MiTek connectors recommended to connect
truss to bearing walls due to UPLIFT at jt(s) 38. This
connection is for uplift only and does not consider lateral
forces.
- 20) This truss is designed in accordance with the 2015
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- 21) This truss has large uplift reaction(s) from gravity load
case(s). Proper connection is required to secure truss
against upward movement at the bearings. Building
designer must provide for uplift reactions indicated.
- 22) Use MiTek THDH26-2 (With 22-16d nails into Girder &
8-16d nails into Truss) or equivalent at 28-1-12 from the
left end to connect truss(es) to front face of bottom
chord.
- 23) Fill all nail holes where hanger is in contact with lumber.
- 24) 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: 1-4=-180, 4-5=-180, 5-7=-180, 7-8=-210,
8-14=-180, 14-15=-180, 16-38=-60, 22-35=-90,
39-42=-30, 40-42=-30, 40-43=-30, 41-43=-30,
41-45=-30, 7-45=-30
Drag: 35-39=-30, 8-22=-30
Concentrated Loads (lb)
Vert: 19=-1475 (F)

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Edenton, NC 27932

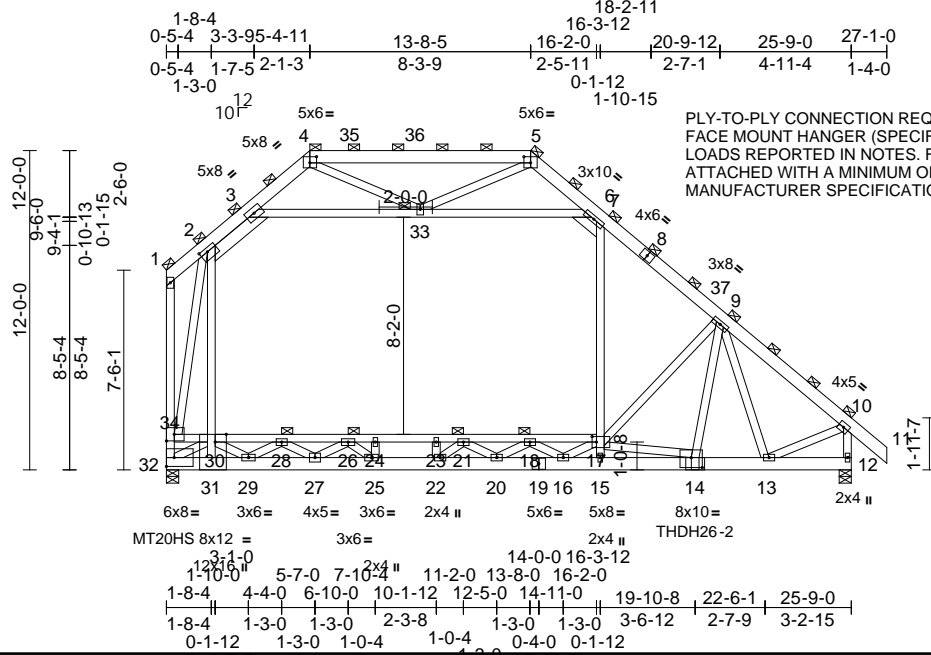
Job 21040035-A	Truss D04	Truss Type Attic Girder	Qty 1	Ply 4	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815337
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:53

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PLY-TO-PLY CONNECTION REQUIRES THAT AN APPROVED FACE MOUNT HANGER (SPECIFIED BY OTHERS) IS REQUIRED FOR LOADS REPORTED IN NOTES. FACE MOUNT HANGER SHALL BE ATTACHED WITH A MINIMUM OF 0.148"x 3" NAILS PER HANGER MANUFACTURER SPECIFICATIONS.

Scale = 1:86.6

Plate Offsets (X, Y): [2:0-3-8,0-1-12], [4:0-3-0,0-2-12], [5:0-3-0,0-2-12], [14:0-5-0,0-4-8], [17:0-2-0,0-2-8], [31:0-3-8,Edge], [34:0-3-8,0-3-0]

Loading	(psf)	Spacing	6-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.22	17-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.42	17-18	>731	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.03	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.11	17-30	>999	360		
BCDL	10.0											
											Weight: 1230 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 30-17:2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 2-31:2x4 SP 2400F 2.0E, 3-6,32-1,29-30,16-17,29-28,16-18,27-28,20-1 8,27-26,20-21,2-34,30-32:2x4 SP No.2

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Braced from sheeted: Spacing > 2-0-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 31-32,29-31,27-29.

JOINTS
1 Brace at Jt(s): 1, 4, 5, 10, 33, 28, 18, 26, 21

REACTIONS (size) 12=0-5-8, 32=0-5-8
Max Horiz 32=-1186 (LC 10)
Max Grav 12=6942 (LC 28), 32=6483 (LC 3)

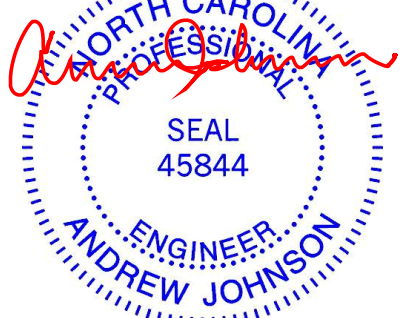
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-753/228, 2-3=-3615/0, 3-4=-2485/741, 4-35=-2372/402, 35-36=-2372/402, 5-36=-2372/402, 5-6=-2779/522, 6-7=-3163/52, 7-8=-4533/0, 8-37=-4659/0, 9-37=-4926/0, 9-10=-6352/0, 10-11=0/170, 10-12=-6846/0, 32-34=-14248/0, 1-34=-815/251

BOT CHORD 31-32=-13213/0, 29-31=-14209/0, 27-29=-5163/897, 25-27=0/5010, 22-25=0/8111, 20-22=0/10521, 19-20=0/13535, 16-19=0/13535, 15-16=0/13126, 14-15=0/12892, 13-14=0/5418, 12-13=-47/113, 28-30=0/12848, 26-28=-29/5181, 24-26=-5425/0, 23-24=-5425/0, 21-23=-5425/0, 18-21=-9905/0, 17-18=-10744/0

WEBS 30-31=0/2742, 2-30=0/12664, 15-17=-599/167, 7-17=0/2277, 3-33=-3211/0, 6-33=-2254/140, 10-13=0/5200, 4-33=0/1061, 5-33=-446/170, 29-30=0/5250, 16-17=-747/1935, 28-29=-6148/0, 16-18=-1628/1370, 27-28=0/4547, 18-20=-1555/330, 26-27=-5930/0, 20-21=-98/3111, 25-26=0/5860, 21-22=-4246/0, 24-25=-1770/0, 22-23=-2/990, 30-34=0/3945, 2-34=-14053/0, 30-32=0/12971, 9-14=0/5689, 14-17=-6920/367, 9-17=-4868/0, 9-13=-2260/0

NOTES
1) N/A
2) 4-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 oc, 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
Attach TC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.



April 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1100 Carolina Way-Roof-BB-2250	I45815337
21040035-A	D04	Attic Girder	1	4	Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:53
 ID:qTtHGbTk32BLSciHyReC1mzNy6U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4zJC?f

Page: 2

- 9) Provide adequate drainage to prevent water ponding.
- 10) All plates are MT20 plates unless otherwise indicated.
- 11) All plates are 3x5 MT20 unless otherwise indicated.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 14) Ceiling dead load (5.0 psf) on member(s). 2-3, 6-7, 3-33, 6-33, 30-34; Wall dead load (5.0psf) on member (s).2-30, 7-17
- 15) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 28-30, 26-28, 24-26, 23-24, 21-23, 18-21, 17-18
- 16) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 17) Use MiTek THDH26-2 (With 22-16d nails into Girder & 8-16d nails into Truss) or equivalent at 28-1-12 from the left end to connect truss(es) to back face of bottom chord.
- 18) Fill all nail holes where hanger is in contact with lumber.
- 19) 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=-180, 2-3=-210, 3-4=-180, 4-5=-180, 5-6=-180, 6-7=-210, 7-10=-180, 10-11=-180, 12-32=-60, 17-30=-90, 3-33=-30, 6-33=-30, 30-34=-30
 Drag: 2-30=-30, 7-17=-30
 Concentrated Loads (lb)
 Vert: 14=-1537 (B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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818 Soundside Road
 Edenton, NC 27932

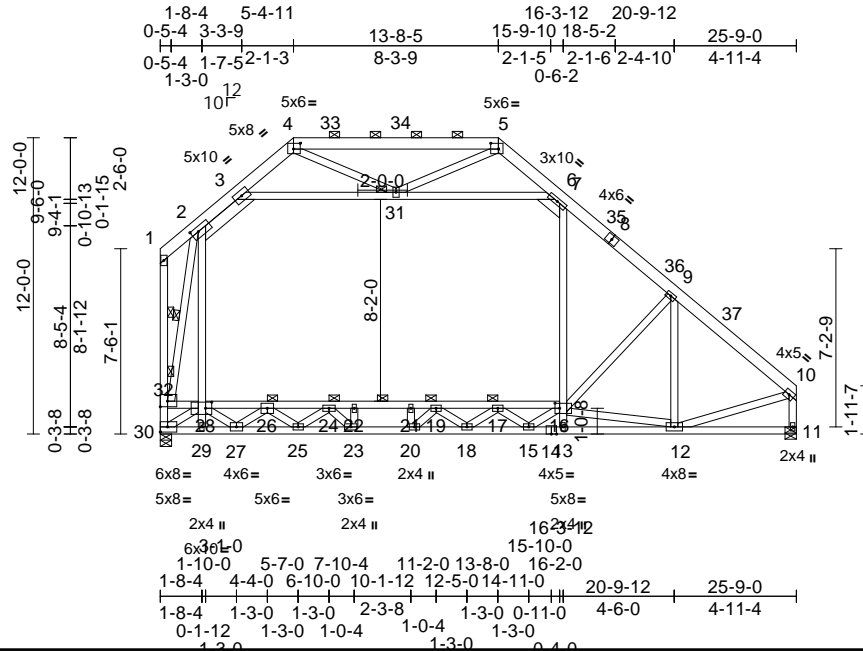
Job 21040035-A	Truss D05	Truss Type Attic	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815338
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:54

Page: 1

ID:Ozglis34yVjPGa_GRequNqjzO_DG-RIC?PsB70Hq3NSgPqnL8w3uITXbGKwKRCDoi7J4zJC?f



Scale = 1:93.3

Plate Offsets (X, Y): [2:0-3-8,0-2-4], [4:0-3-4,0-2-12], [5:0-3-12,0-2-12], [16:0-2-4,0-2-8], [28:0-3-0,0-3-0], [32:0-3-2,0-2-12]

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	0.75	Vert(LL)	-0.25	16-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.49	16-17	>618	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.04	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.13	16-28	>999	360		
BCDL	10.0											
											Weight: 281 lb	FT = 20%

LUMBER	TOP CHORD	BOT CHORD	WEBS	BRACING	TOP CHORD	BOT CHORD	WEBS	JOINTS	REACTIONS	FORCES	TOP CHORD	NOTES
	2x6 SP No.2	2x4 SP No.2 *Except* 30-14:2x4 SP No.1	2x4 SP No.3 *Except* 2-29:2x4 SP No.1, 3-6,30-1,27-28,15-16,27-26,15-17,25-26,18-1, 7,25-24,18-19,28-30,2-32:2x4 SP No.2		Structural wood sheathing directly applied or 5-4-6 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-0 max.): 4-5.	Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 3-9-0 oc bracing: 19-24 3-10-0 oc bracing: 17-19, 16-17 10-0-0 oc bracing: 26-28, 24-26	1 Row at midpt 2-32 2 Rows at 1/3 pts 1-30	1 Brace at Jt(s): 31, 26, 17, 24, 19	(size) 11=0-5-8, 30=0-5-8 Max Horiz 30=378 (LC 10) Max Grav 11=1518 (LC 43), 30=2026 (LC 43)	(lb) - Maximum Compression/Maximum Tension	1-2=207/121, 2-3=1079/134, 3-4=841/234, 4-33=800/168, 33-34=800/168, 5-34=800/168, 5-6=930/211, 6-7=941/147, 7-35=1229/24, 8-35=1287/9, 8-36=1304/0, 9-36=1420/0, 9-37=1456/0, 10-37=1594/0, 10-11=1481/0, 30-32=3979/0, 1-32=217/149	<p>1) Unbalanced roof live loads have been considered for this design.</p> <p>2) Wind: ASCE 7-10; 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 (2) 8-4-15 to 26-2-6, Interior (1) 26-2-6 to 30-10-7, Exterior (2) 30-10-7 to 33-10-7 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</p> <p>3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10</p>



April 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1100 Carolina Way-Roof-BB-2250	I45815338
21040035-A	D05	Attic	2	1	Job Reference (optional)	

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

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:54
 ID:OzglS34yVjPGa_GRequNQjzO_DG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f

Page: 2

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

13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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818 Soundside Road
 Edenton, NC 27932

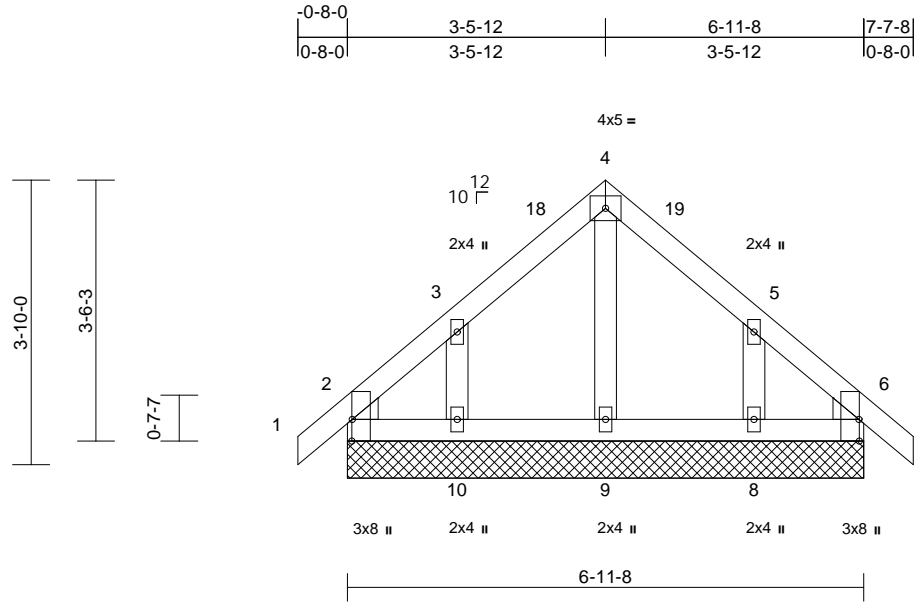
Job 21040035-A	Truss E01	Truss Type Common Supported Gable	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815339
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:55

Page: 1

ID:OAsSIEFCwKxfHOuAOKWm5nzNyMG-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f



Scale = 1:31.1

Plate Offsets (X, Y): [2:0-3-8,Edge], [6:0-3-8,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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 36 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

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.

REACTIONS

(size) 2=6-11-8, 6=6-11-8, 8=6-11-8,
 9=6-11-8, 10=6-11-8, 11=6-11-8,
 15=6-11-8
 Max Horiz 2=85 (LC 13), 11=85 (LC 13)
 Max Uplift 2=-17 (LC 10), 6=-1 (LC 11),
 8=-102 (LC 15), 10=-106 (LC 14),
 11=-17 (LC 10), 15=-1 (LC 11)
 Max Grav 2=108 (LC 25), 6=107 (LC 1),
 8=177 (LC 29), 9=117 (LC 27),
 10=181 (LC 24), 11=108 (LC 25),
 15=107 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/26, 2-3=-62/57, 3-18=-75/66,
 4-18=-58/71, 4-19=-58/71, 5-19=-75/66,
 5-6=-47/34, 6-7=0/26
 BOT CHORD 2-10=-46/74, 9-10=-28/74, 8-9=-28/74,
 6-8=-28/74
 WEBS 4-9=-74/0, 3-10=-162/119, 5-8=-162/119

NOTES

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

- Wind: ASCE 7-10; 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 (3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 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 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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.
- * 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.
- N/A
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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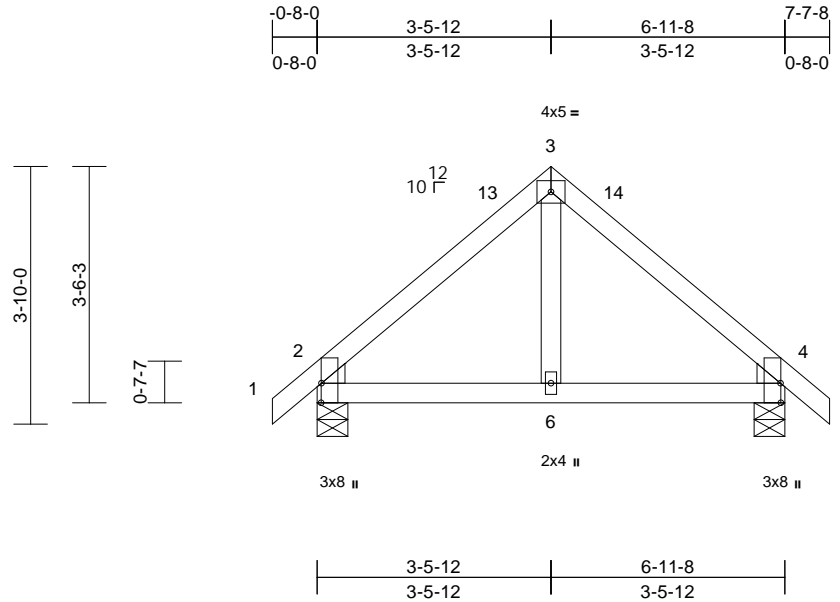


Job 21040035-A	Truss E02	Truss Type Common	Qty 4	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815340
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:56
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Page: 1



Scale = 1:34.3

Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,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	0.14	Vert(LL)	0.01	6-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 32 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

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.

REACTIONS

(size) 2=0-5-8, 4=0-5-8
 Max Horiz 2=-85 (LC 12)
 Max Uplift 2=-39 (LC 14), 4=-39 (LC 15)
 Max Grav 2=318 (LC 1), 4=318 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-13=-277/73, 3-13=-216/81,
 3-14=-216/81, 4-14=-277/73, 4-5=0/26
 BOT CHORD 2-6=-54/177, 4-6=0/177
 WEBS 3-6=-15/154

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown;
 Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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818 Soundside Road
 Edenton, NC 27932

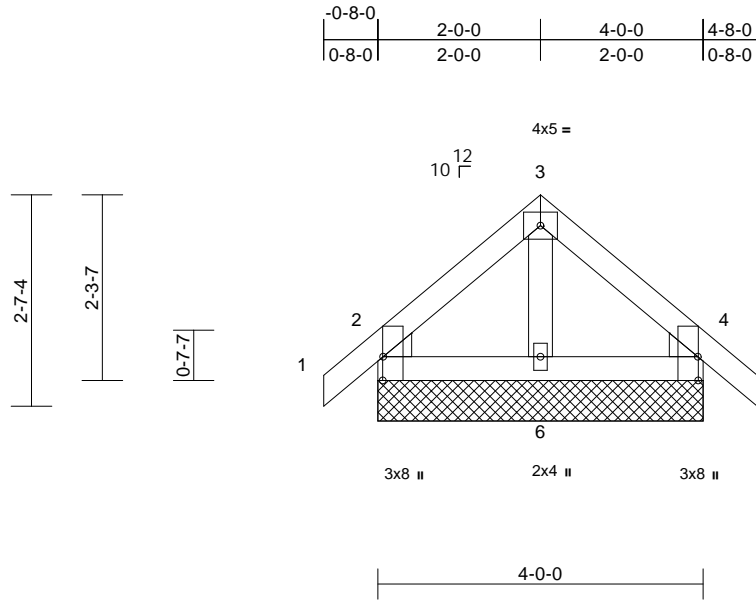
Job 21040035-A	Truss E03	Truss Type Common Supported Gable	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815341
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:56

Page: 1

ID:aH0cb?O5K6K565qHx7Dx26zNyM5-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDOI7J4zJC?f



Scale = 1:28.3

Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,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	0.04	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	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 20 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=4-0-0, 4=4-0-0, 6=4-0-0,
 7=4-0-0, 11=4-0-0
 Max Horiz 2=55 (LC 13), 7=55 (LC 13)
 Max Uplift 2=-37 (LC 14), 4=-43 (LC 15),
 7=-37 (LC 14), 11=-43 (LC 15)
 Max Grav 2=155 (LC 1), 4=155 (LC 1), 6=300
 (LC 1), 7=155 (LC 1), 11=155 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/26, 2-3=-91/62, 3-4=-91/62, 4-5=0/26
 BOT CHORD 2-6=-27/51, 4-6=-3/51
 WEBS 3-6=-33/25

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; 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 (3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) N/A

- 12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 4, 11.
- 13) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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818 Soundside Road
 Edenton, NC 27932

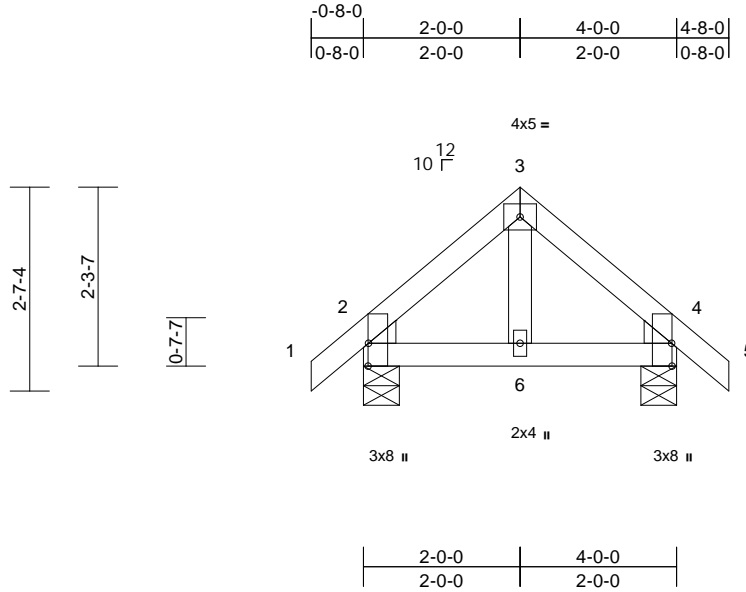
Job 21040035-A	Truss E04	Truss Type Common	Qty 6	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815342
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:56

Page: 1

ID:pT0AMS4QDQAecFQUzNG3XqzNyMU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,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	0.03	Vert(LL)	0.00	6-9	>999	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	6-9	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 20 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-5-8, 4=0-5-8
 Max Horiz 2=55 (LC 13)
 Max Uplift 2=-28 (LC 14), 4=-28 (LC 15)
 Max Grav 2=200 (LC 1), 4=200 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

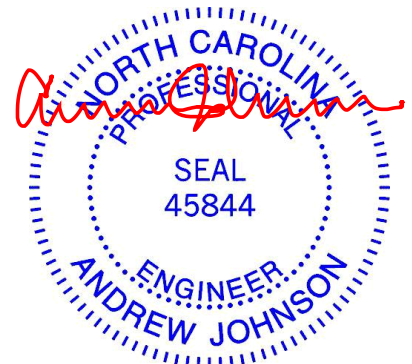
TOP CHORD 1-2=0/26, 2-3=-138/47, 3-4=-138/47, 4-5=0/26
 BOT CHORD 2-6=-24/93, 4-6=0/93
 WEBS 3-6=-12/81

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



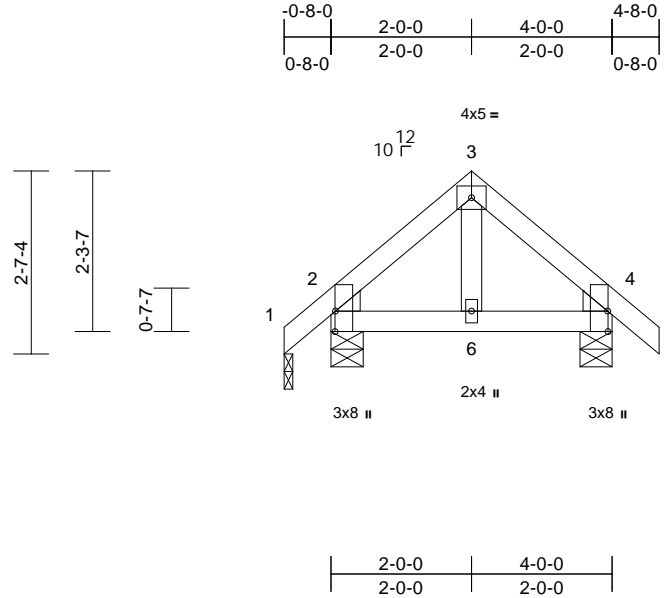
818 Soundside Road
 Edenton, NC 27932

Job 21040035-A	Truss E05	Truss Type Common	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815343
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:57
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Page: 1



Scale = 1:32.8

Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,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	0.08	Vert(LL)	0.00	6-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	6-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 20 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.3 *Except* 3-5:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

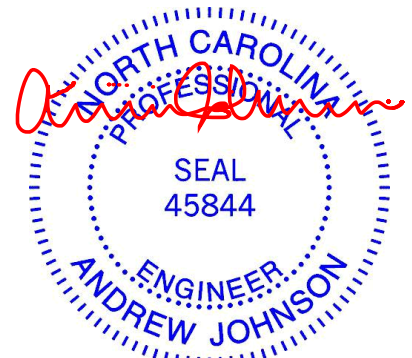
REACTIONS (size) 1=0-1-8, 2=0-5-8, 4=0-5-8
Max Horiz 1=-57 (LC 12)
Max Uplift 1=-18 (LC 10), 2=-50 (LC 14),
4=-30 (LC 15)
Max Grav 1=68 (LC 25), 2=208 (LC 28),
4=186 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-75/65, 2-3=-121/54, 3-4=-113/42,
4-5=0/26
BOT CHORD 2-6=0/73, 4-6=0/73
WEBS 3-6=-9/59

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 1.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 2, and 4. This connection is for uplift only and does not consider lateral forces.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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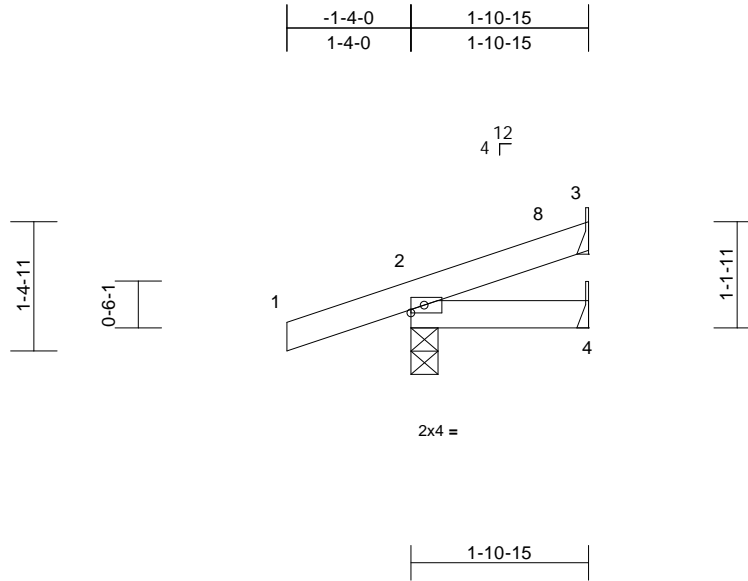
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss EJ01	Truss Type Jack-Open	Qty 4	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815344
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:57
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 8 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

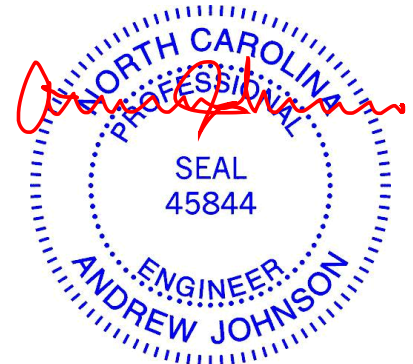
REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=47 (LC 10)
Max Uplift 2=-79 (LC 10), 3=-19 (LC 14)
Max Grav 2=184 (LC 21), 3=37 (LC 21), 4=30 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-8=-101/91, 3-8=-10/11
BOT CHORD 2-4=-59/22

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 3.
- 9) One RT7A 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.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

NOTES

- 1) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



April 26, 2021

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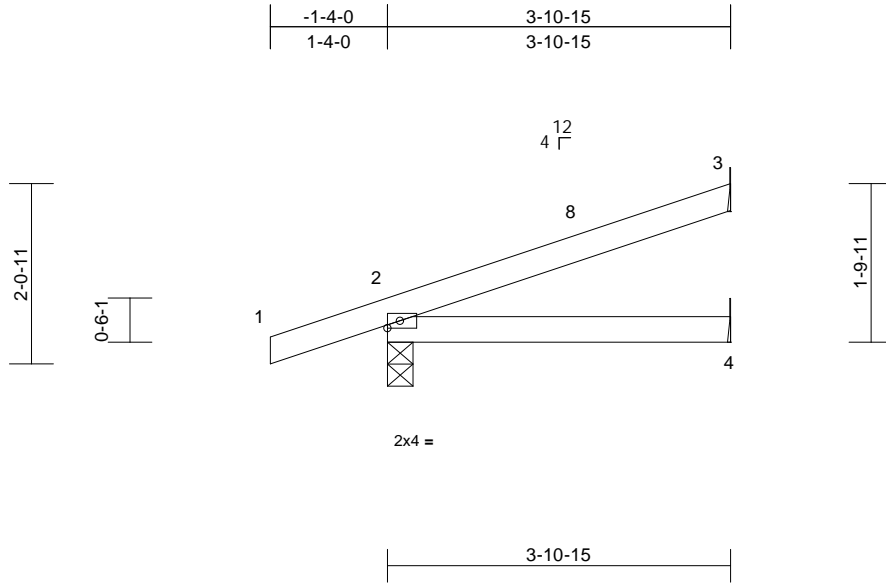
Job 21040035-A	Truss EJ02	Truss Type Jack-Open	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815345
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:57

Page: 1

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Scale = 1:26.3

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	0.21	Vert(LL)	-0.01	4-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 14 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=73 (LC 10)
Max Uplift 2=-79 (LC 10), 3=-47 (LC 14)
Max Grav 2=252 (LC 21), 3=107 (LC 21), 4=70 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

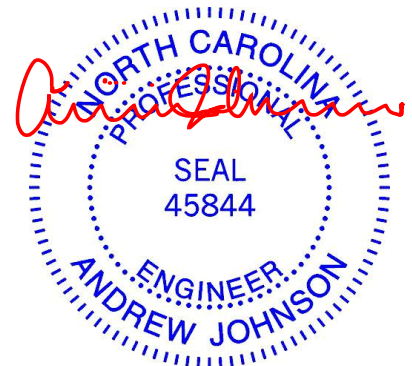
TOP CHORD 1-2=0/25, 2-8=-147/103, 3-8=-31/26
BOT CHORD 2-4=-53/47

NOTES

- 1) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 3.
- 9) One RT7A 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.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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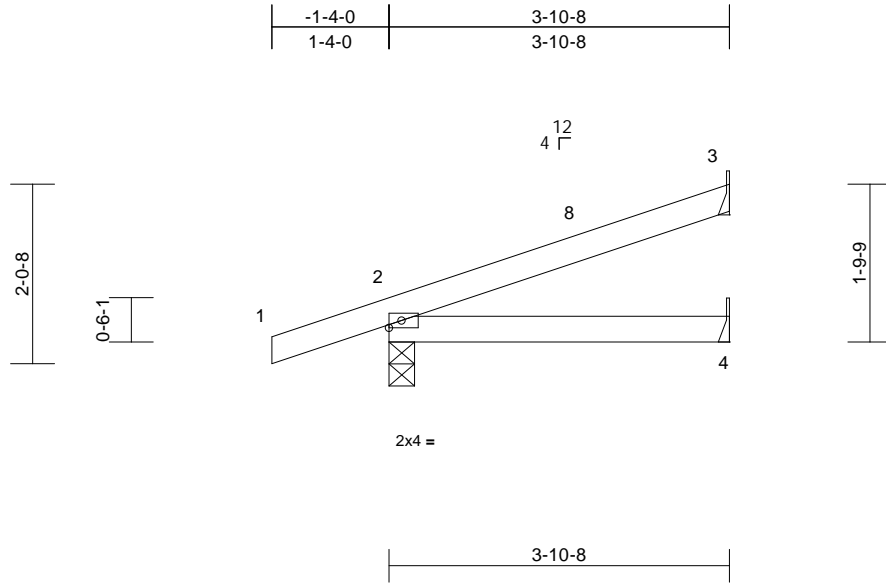
Job 21040035-A	Truss EJ03	Truss Type Jack-Open	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815346
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:57

Page: 1

ID: jLHNOaR2n8aiqbAOeurj9ezNyPv-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



Scale = 1:26.2

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01	4-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 14 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=70 (LC 10)
Max Uplift 2=-77 (LC 10), 3=-44 (LC 14)
Max Grav 2=241 (LC 21), 3=101 (LC 21), 4=67 (LC 7)

FORCES

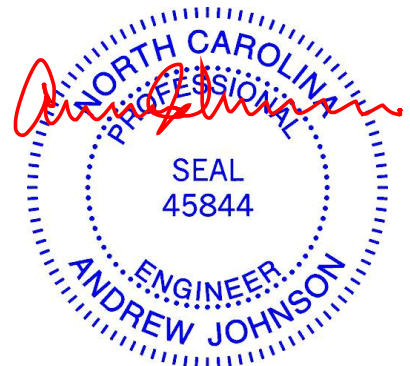
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-8=-140/99, 3-8=-29/25
BOT CHORD 2-4=-52/44

NOTES

- 1) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 3.
- 9) One RT7A 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.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

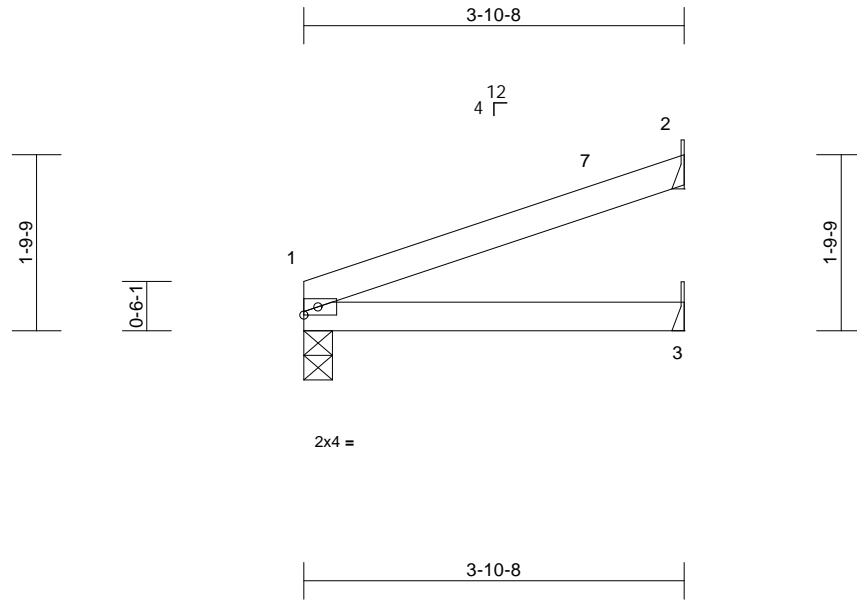
Job 21040035-A	Truss EJ04	Truss Type Jack-Open	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815347
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:58

Page: 1

Id:jLHNOaR2n8aiqbAOeur9ezNyPv-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



Scale = 1:23.5

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	0.01	3-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	3-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 12 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=0-3-8, 2= Mechanical, 3= Mechanical
Max Horiz 1=48 (LC 10)
Max Uplift 1=-17 (LC 10), 2=-46 (LC 10)
Max Grav 1=148 (LC 20), 2=102 (LC 20), 3=69 (LC 7)

FORCES

(lb) - Maximum Compression/Maximum Tension

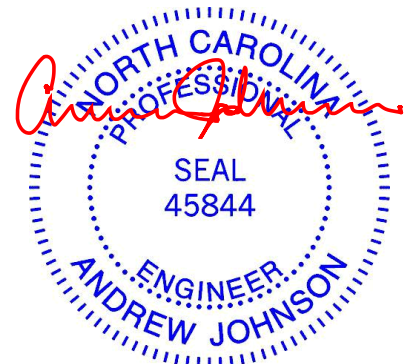
TOP CHORD 1-7=-45/13, 2-7=-29/25
BOT CHORD 1-3=-87/54

NOTES

- 1) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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.
- 5) * 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.

- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 2.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



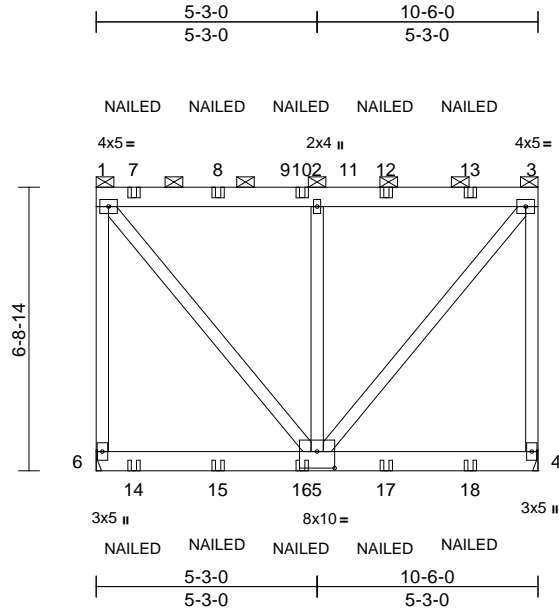
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss G01	Truss Type Flat Girder	Qty 1	Ply 2	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815348
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:58
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Page: 1



Scale = 1:54.8

Plate Offsets (X, Y): [5:0-5:0,0-4-12]

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	0.57	Vert(LL)	-0.06	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.09	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.56	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 195 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical
Max Horiz 6=227 (LC 9)
Max Grav 4=3518 (LC 2), 6=3572 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-6=-2363/82, 1-7=-1743/0, 7-8=-1743/0, 8-9=-1743/0, 9-10=-1743/0, 2-10=-1743/0, 2-11=-1743/0, 11-12=-1743/0, 12-13=-1743/0, 3-13=-1743/0, 3-4=-2327/36
BOT CHORD 6-14=-186/189, 14-15=-186/189, 15-16=-186/189, 5-16=-186/189, 5-17=-73/75, 17-18=-73/75, 4-18=-73/75
WEBS 1-5=0/2715, 2-5=-694/576, 3-5=0/2715

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Load case(s) 1, 2 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-170
Concentrated Loads (lb)

- Vert: 7=-118 (F), 8=-111 (F), 10=-111 (F), 12=-111 (F), 13=-111 (F), 14=-46 (F), 15=-44 (F), 16=-44 (F), 17=-44 (F), 18=-44 (F)
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-570
Concentrated Loads (lb)
Vert: 7=-94 (F), 8=-87 (F), 10=-87 (F), 12=-87 (F), 13=-87 (F), 14=-45 (F), 15=-43 (F), 16=-43 (F), 17=-43 (F), 18=-43 (F)



April 26, 2021

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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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



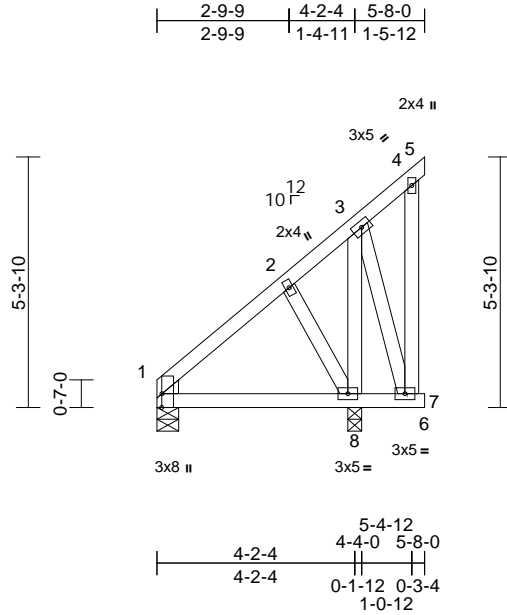
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss H01	Truss Type Monopitch	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815349
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:58
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Page: 1



Loading		Spacing		CSI		DEFL				PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	0.01	8-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 42 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 WEDGE Left: 2x4 SP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 5-8-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=0-5-8, 8=0-3-8
 Max Horiz 1=180 (LC 13)
 Max Uplift 1=-16 (LC 10), 8=-121 (LC 11)
 Max Grav 1=198 (LC 28), 8=355 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-181/87, 2-3=-147/89, 3-4=-102/100, 4-5=-13/0, 4-7=-68/53
 BOT CHORD 1-8=-99/83, 7-8=-73/84, 6-7=0/0
 WEBS 2-8=-159/108, 3-8=-131/90, 3-7=-62/55

- NOTES**
- 1) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
 - 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.

- 5) * 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.
- 6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 8. This connection is for uplift only and does not consider lateral forces.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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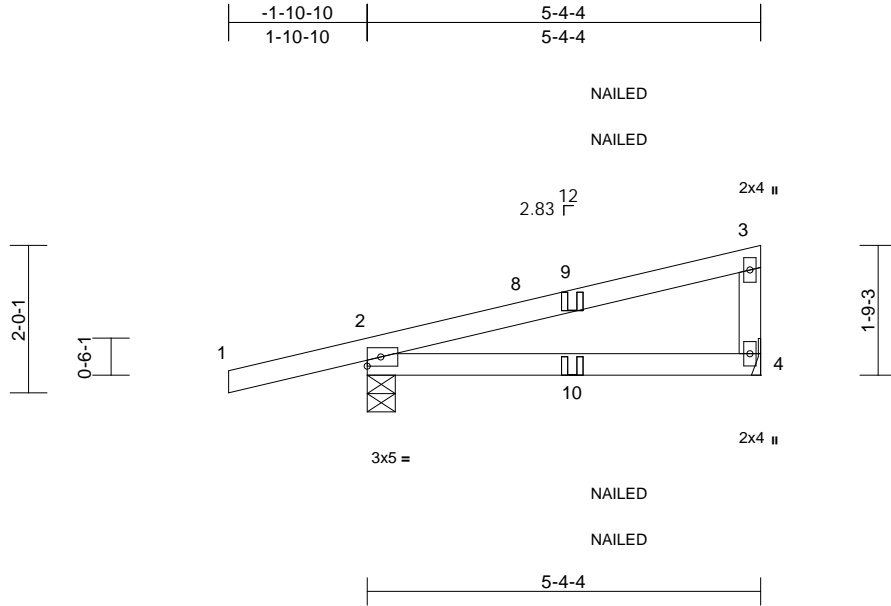
818 Soundside Road
 Edenton, NC 27932

Job 21040035-A	Truss HJ01	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815350
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:59
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Page: 1



Scale = 1:31.4

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	0.47	Vert(LL)	-0.03	4-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	4-7	>920	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 21 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 sheathing directly applied or 5-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-4-9, 4= Mechanical
Max Horiz 2=64 (LC 11)
Max Uplift 2=-123 (LC 8), 4=-35 (LC 12)
Max Grav 2=350 (LC 19), 4=208 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-8=-175/189, 8-9=-29/0,
3-9=-26/26, 3-4=-149/53
BOT CHORD 2-10=-129/62, 4-10=-19/15

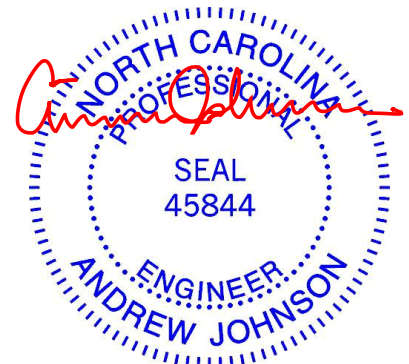
NOTES

- 1) Wind: ASCE 7-10; 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
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 4.
- 9) One RT7A 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.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-5=-20
Concentrated Loads (lb)
Vert: 10=1 (F=1, B=1)



April 26, 2021

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ENGINEERING BY
TRENCO
A MiTek Affiliate

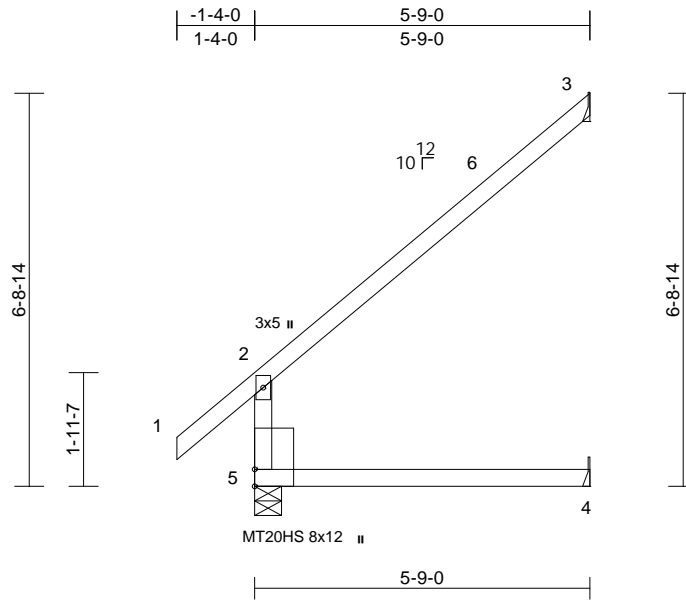
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss J01	Truss Type Jack-Open	Qty 5	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815351
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:59
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Page: 1



Scale = 1:39.5

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	1.00	Vert(LL)	0.12	4-5	>542	240	MT20HS	187/143
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.13	4-5	>495	180	MT20	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.26	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 25 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 sheathing directly applied or 5-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=196 (LC 14)
Max Uplift 3=-156 (LC 14), 4=-16 (LC 14)
Max Grav 3=176 (LC 24), 4=106 (LC 7), 5=326 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

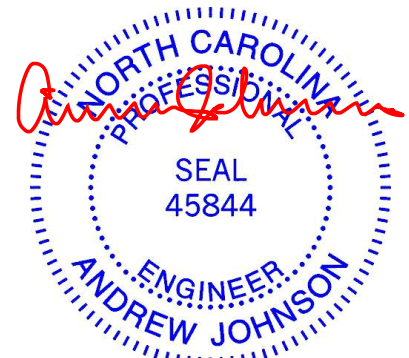
TOP CHORD 2-5=-279/63, 1-2=0/57, 2-6=-161/103, 3-6=-127/133
BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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.
- 5) All plates are MT20 plates unless otherwise indicated.

- 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.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 3 and 16 lb uplift at joint 4.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



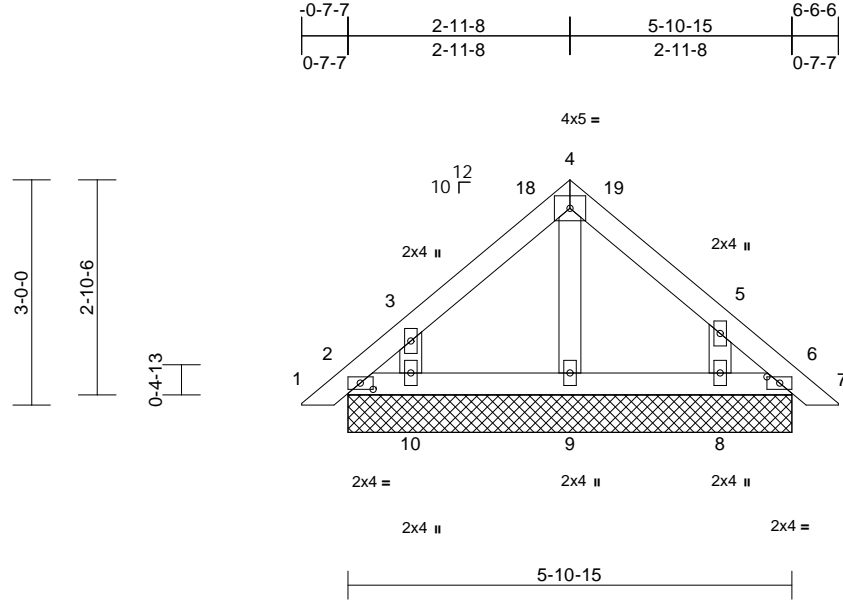
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss PB01	Truss Type Piggyback	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815352
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:49:59
ID:cBdbVBIcGfVTfDs08b4qzNyOn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:30.7
Plate Offsets (X, Y): [2:0-2-1,0-1-0], [6:0-2-1,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 28 lb	FT = 20%	

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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.

REACTIONS (size) 2=5-10-15, 6=5-10-15, 8=5-10-15, 9=5-10-15, 10=5-10-15, 11=5-10-15, 15=5-10-15
Max Horiz 2=-69 (LC 12), 11=-69 (LC 12)
Max Uplift 2=-24 (LC 10), 6=-7 (LC 11), 8=-88 (LC 15), 10=-94 (LC 14), 11=-24 (LC 10), 15=-7 (LC 11)
Max Grav 2=56 (LC 29), 6=56 (LC 1), 8=165 (LC 25), 9=117 (LC 1), 10=177 (LC 24), 11=56 (LC 29), 15=56 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-74/59, 3-18=-76/50, 4-18=-36/55, 4-19=-38/56, 5-19=-68/51, 5-6=-52/43, 6-7=0/15
BOT CHORD 2-10=-22/56, 9-10=-22/56, 8-9=-22/56, 6-8=-22/56
WEBS 3-10=-175/135, 4-9=-71/0, 5-8=-160/122

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

- Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- N/A
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



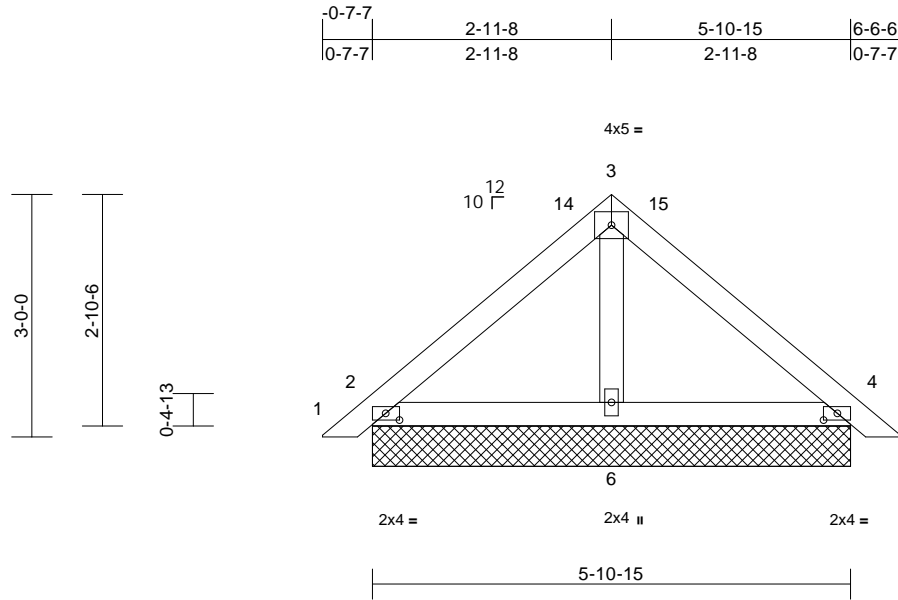
April 26, 2021

Job 21040035-A	Truss PB02	Truss Type Piggyback	Qty 8	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815353
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:50:00
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Page: 1



Scale = 1:28.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 26 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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.

REACTIONS

(size) 2=5-10-15, 4=5-10-15, 6=5-10-15, 7=5-10-15, 11=5-10-15
Max Horiz 2=-69 (LC 12), 7=-69 (LC 12)
Max Uplift 2=-33 (LC 14), 4=-42 (LC 15), 7=-33 (LC 14), 11=-42 (LC 15)
Max Grav 2=169 (LC 1), 4=169 (LC 1), 6=184 (LC 1), 7=169 (LC 1), 11=169 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-14=-118/62, 3-14=-67/69, 3-15=-67/69, 4-15=-115/62, 4-5=0/15
BOT CHORD 2-6=-25/61, 4-6=-8/61
WEBS 3-6=-67/0

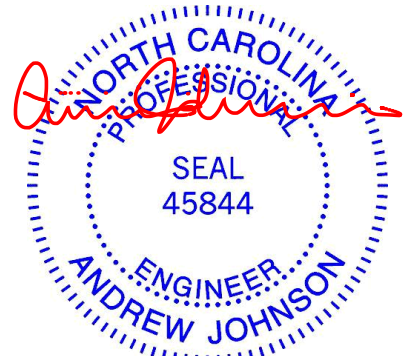
NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 4-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) N/A

- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

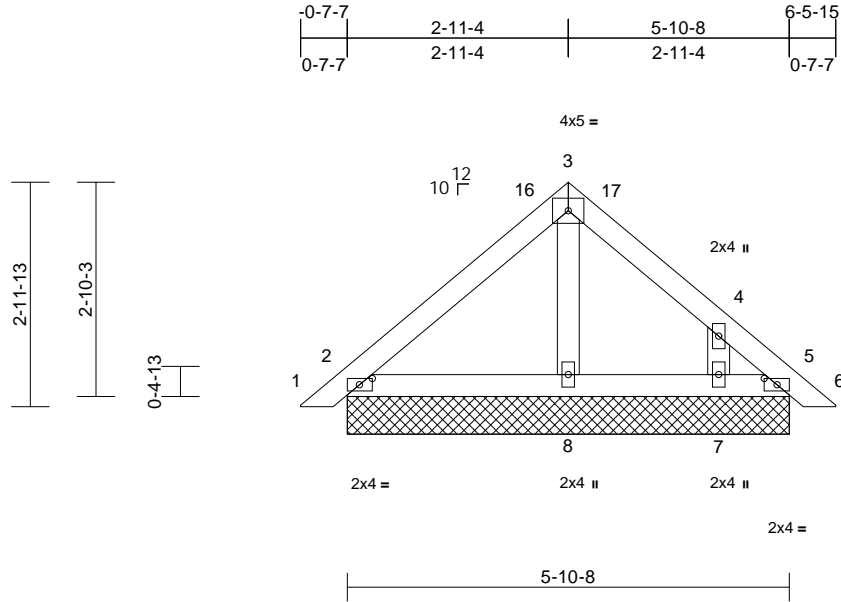
Job 21040035-A	Truss PB03	Truss Type Piggyback	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815354
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:50:00

Page: 1

ID:BXrIbvRgYSIZSllaCbMyiszNyPu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:30.6
Plate Offsets (X, Y): [2:0-2-1,0-1-0], [5:0-2-1,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 27 lb	FT = 20%	

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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.

REACTIONS (size) 2=5-10-8, 5=5-10-8, 7=5-10-8, 8=5-10-8, 9=5-10-8, 12=5-10-8
Max Horiz 2=69 (LC 13), 9=69 (LC 13)
Max Uplift 2=-31 (LC 14), 5=-12 (LC 11), 7=-85 (LC 15), 9=-31 (LC 14), 12=-12 (LC 11)
Max Grav 2=162 (LC 1), 5=78 (LC 24), 7=149 (LC 25), 8=158 (LC 24), 9=162 (LC 1), 12=78 (LC 24)

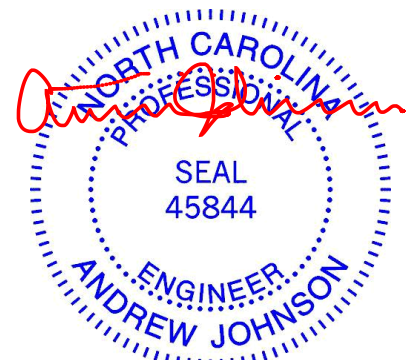
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-16=-97/50, 3-16=-45/57, 3-17=-65/69, 4-17=-89/64, 4-5=-51/31, 5-6=0/15
BOT CHORD 2-8=-24/56, 7-8=-18/56, 5-7=-18/56
WEBS 3-8=-66/0, 4-7=-166/125

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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.
- * 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.
- N/A

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 26, 2021

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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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

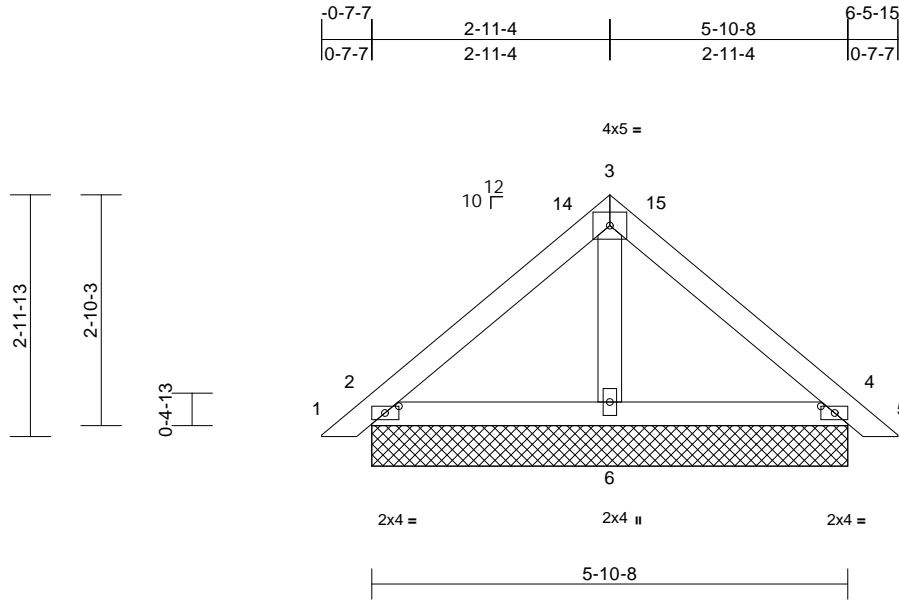
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss PB04	Truss Type Piggyback	Qty 15	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815355
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:50:00
ID:MKEvGN?v65efaW0yLdvLuazNyef-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:28.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 26 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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.

REACTIONS

(size) 2=5-10-8, 4=5-10-8, 6=5-10-8, 7=5-10-8, 11=5-10-8
Max Horiz 2=69 (LC 13), 7=69 (LC 13)
Max Uplift 2=-33 (LC 14), 4=-42 (LC 15), 7=-33 (LC 14), 11=-42 (LC 15)
Max Grav 2=168 (LC 1), 4=168 (LC 1), 6=183 (LC 1), 7=168 (LC 1), 11=168 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-14=-117/62, 3-14=-67/68, 3-15=-67/68, 4-15=-114/62, 4-5=0/15
BOT CHORD 2-6=-25/60, 4-6=-8/60
WEBS 3-6=-66/0

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 4-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) N/A

- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



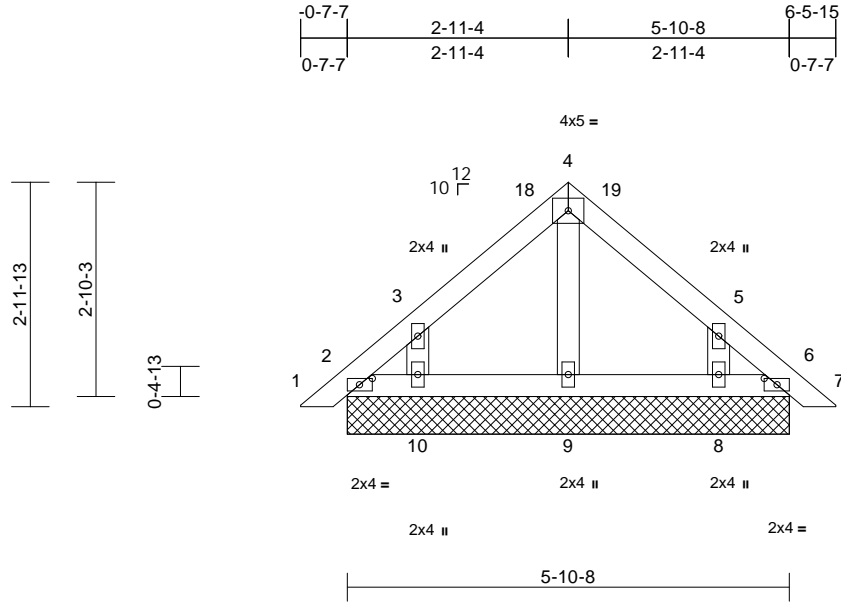
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss PB05	Truss Type Piggyback	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815356
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:50:01
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Page: 1



Scale = 1:30.6
Plate Offsets (X, Y): [2:0-2-1,0-1-0], [6:0-2-1,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 28 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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.

REACTIONS (size) 2=5-10-8, 6=5-10-8, 8=5-10-8, 9=5-10-8, 10=5-10-8, 11=5-10-8, 15=5-10-8
Max Horiz 2=69 (LC 13), 11=69 (LC 13)
Max Uplift 2=-20 (LC 10), 6=-7 (LC 11), 8=-87 (LC 15), 10=-89 (LC 14), 11=-20 (LC 10), 15=-7 (LC 11)
Max Grav 2=63 (LC 25), 6=55 (LC 1), 8=165 (LC 25), 9=114 (LC 1), 10=166 (LC 24), 11=63 (LC 25), 15=55 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-66/55, 3-18=-73/50, 4-18=-37/55, 4-19=-37/55, 5-19=-68/50, 5-6=-52/44, 6-7=0/15
BOT CHORD 2-10=-22/56, 9-10=-22/56, 8-9=-22/56, 6-8=-22/56
WEBS 4-9=-69/0, 3-10=-160/122, 5-8=-160/122

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

- Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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.
- * 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.
- N/A
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



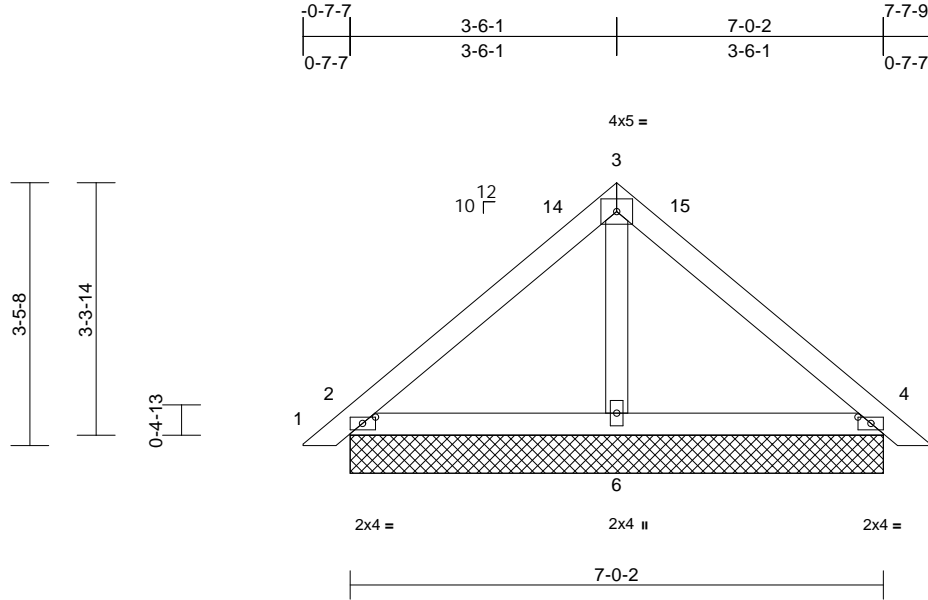
April 26, 2021

Job 21040035-A	Truss PB06	Truss Type Piggyback	Qty 3	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815357
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 30 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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.

REACTIONS

(size) 2=7-0-2, 4=7-0-2, 6=7-0-2, 7=7-0-2, 11=7-0-2
Max Horiz 2=81 (LC 13), 7=81 (LC 13)
Max Uplift 2=-40 (LC 14), 4=-50 (LC 15), 7=-40 (LC 14), 11=-50 (LC 15)
Max Grav 2=200 (LC 1), 4=200 (LC 1), 6=209 (LC 1), 7=200 (LC 1), 11=200 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-14=-148/76, 3-14=-91/84, 3-15=-91/84, 4-15=-146/76, 4-5=0/15
BOT CHORD 2-6=-35/76, 4-6=-10/76
WEBS 3-6=-71/1

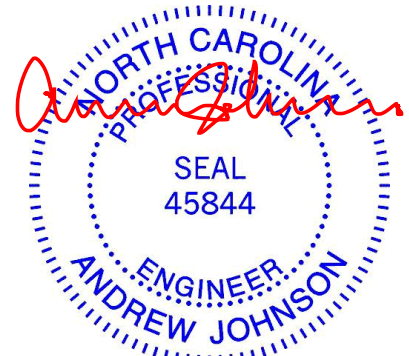
NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 4-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) N/A

- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



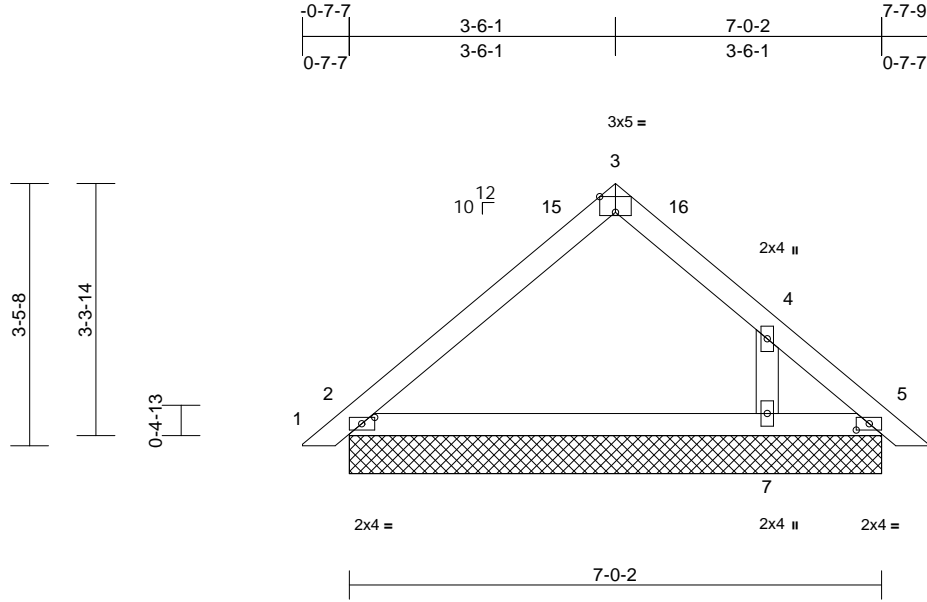
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss PB07	Truss Type Piggyback	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815358
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	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	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 28 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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.

REACTIONS

(size) 2=7-0-2, 5=7-0-2, 7=7-0-2, 8=7-0-2, 11=7-0-2
Max Horiz 2=-81 (LC 12), 8=-81 (LC 12)
Max Uplift 2=-31 (LC 14), 5=-11 (LC 11), 7=-67 (LC 15), 8=-31 (LC 14), 11=-11 (LC 11)
Max Grav 2=250 (LC 1), 5=106 (LC 1), 7=260 (LC 25), 8=250 (LC 1), 11=106 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-15=-163/38, 3-15=-75/46, 3-16=-111/68, 4-16=-160/63, 4-5=-156/28, 5-6=0/15
BOT CHORD 2-7=-32/114, 5-7=-16/114
WEBS 4-7=-137/121

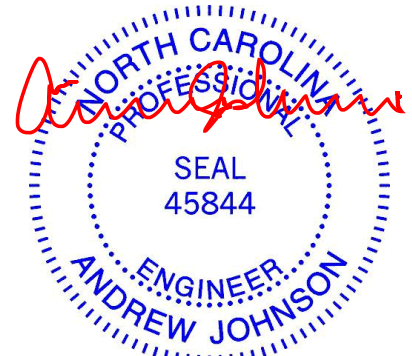
NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for positions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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.
- * 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.
- N/A

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



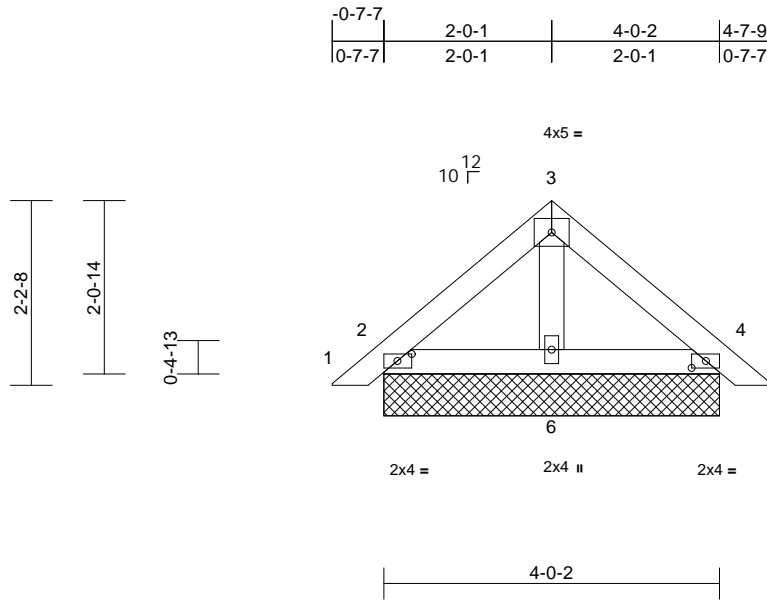
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss PB08	Truss Type Piggyback	Qty 3	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815359
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	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	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 18 lb	FT = 20%	

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=4-0-2, 4=4-0-2, 6=4-0-2, 7=4-0-2, 11=4-0-2
Max Horiz 2=-50 (LC 12), 7=-50 (LC 12)
Max Uplift 2=-23 (LC 14), 4=-29 (LC 15), 6=-2 (LC 14), 7=-23 (LC 14), 11=-29 (LC 15)
Max Grav 2=118 (LC 1), 4=118 (LC 1), 6=133 (LC 1), 7=118 (LC 1), 11=118 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-70/43, 3-4=-67/43, 4-5=0/15
BOT CHORD 2-6=-13/40, 4-6=-9/40
WEBS 3-6=-52/2

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- N/A

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 26, 2021

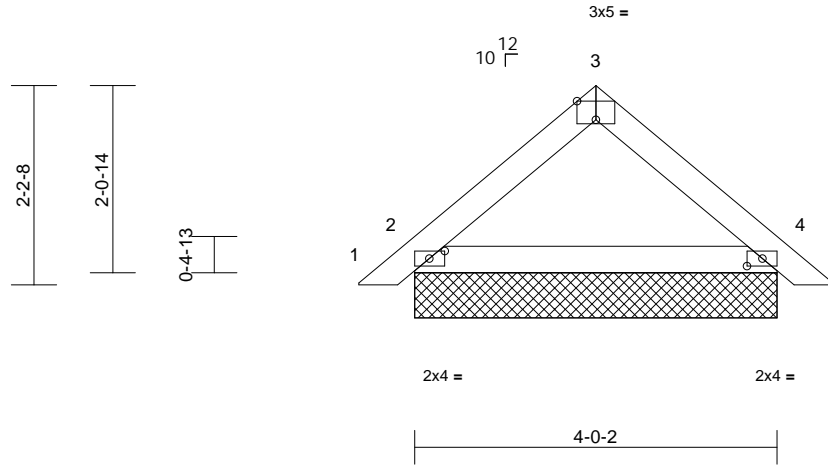
Job 21040035-A	Truss PB09	Truss Type Piggyback	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815360
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:50:02
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Page: 1

-0-7-7	2-0-1	4-0-2	4-7-9
0-7-7	2-0-1	2-0-1	0-7-7



Scale = 1:25.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 16 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-3-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=4-0-2, 4=4-0-2, 6=4-0-2, 10=4-0-2
Max Horiz 2=-50 (LC 12), 6=-50 (LC 12)
Max Uplift 2=-24 (LC 14), 4=-20 (LC 15), 6=-24 (LC 14), 10=-20 (LC 15)
Max Grav 2=185 (LC 1), 4=191 (LC 1), 6=185 (LC 1), 10=191 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-3=-115/43, 3-4=-116/41, 4-5=0/15
BOT CHORD 2-4=-12/85

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- N/A
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



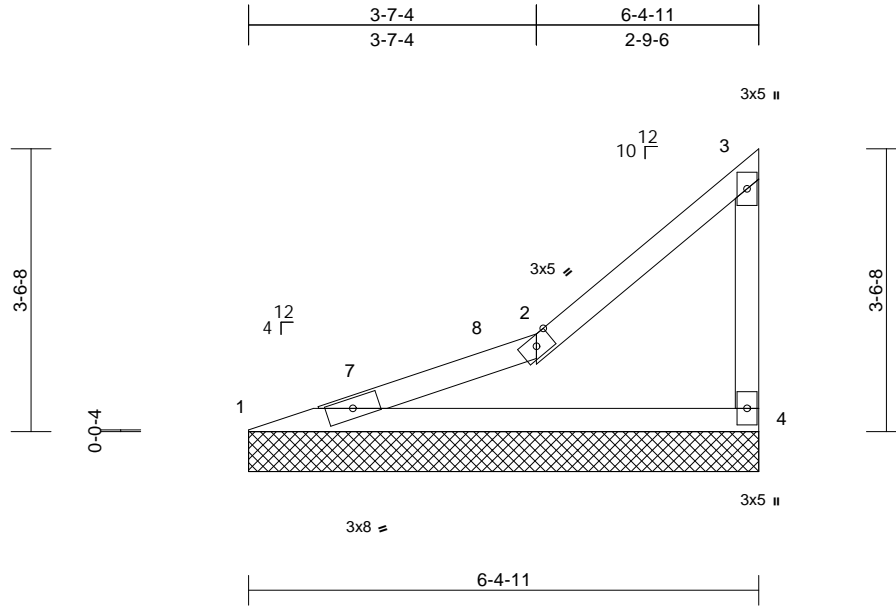
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss VL01	Truss Type Valley	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815361
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:28.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.62	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 24 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 sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=6-4-11, 4=6-4-11
Max Horiz 1=124 (LC 11)
Max Uplift 1=-38 (LC 10), 4=-62 (LC 14)
Max Grav 1=263 (LC 20), 4=258 (LC 20)

FORCES

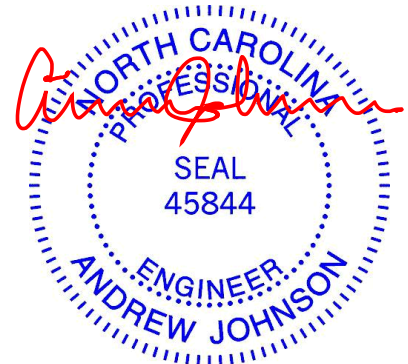
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-631/180, 1-7=-612/182, 1-8=-148/30,
2-8=-125/32, 2-3=-115/43, 3-4=-137/71
BOT CHORD 1-4=-187/592

NOTES

- 1) Wind: ASCE 7-10; 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 (2) 0-0-12 to 3-0-12, Interior (1) 3-0-12 to 3-8-0, Exterior (2) 3-8-0 to 6-3-11 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.

- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 4 and 38 lb uplift at joint 1.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

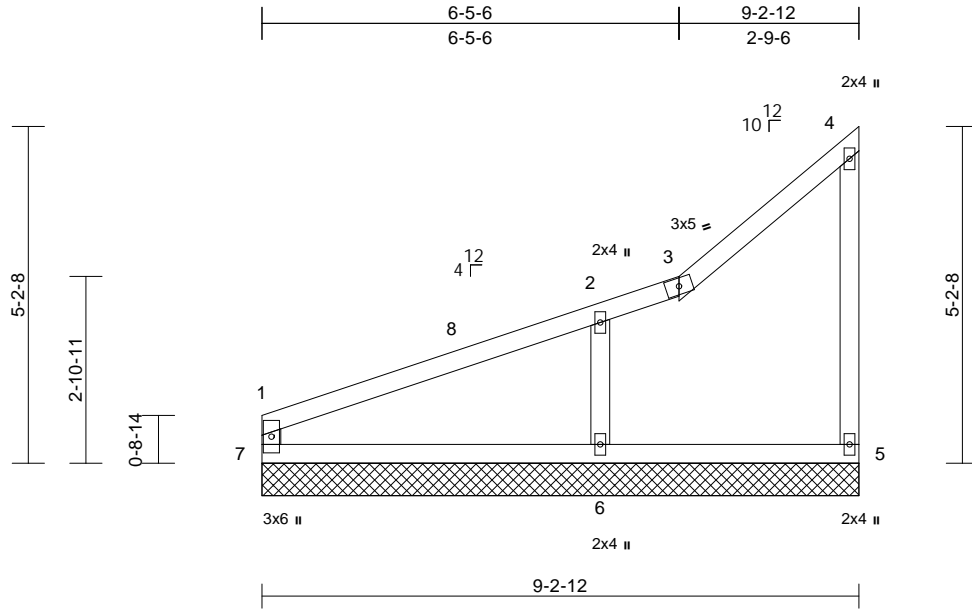
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss VL02	Truss Type Valley	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815362
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:50:03
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Page: 1



Scale = 1:35.6

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	0.21	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0											
										Weight: 40 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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=9-2-12, 6=9-2-12, 7=9-2-12
Max Horiz 7=188 (LC 11)
Max Uplift 5=-36 (LC 11), 6=-131 (LC 14), 7=-31 (LC 10)
Max Grav 5=135 (LC 23), 6=494 (LC 20), 7=169 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-134/64, 1-8=-135/18, 2-8=-126/60, 2-3=-113/57, 3-4=-105/76, 4-5=-106/51
BOT CHORD 6-7=-74/85, 5-6=-74/85
WEBS 2-6=-375/182

NOTES

- 1) Wind: ASCE 7-10; 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 (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 6-5-6, Exterior (2) 6-5-6 to 9-1-0 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 7, 36 lb uplift at joint 5 and 131 lb uplift at joint 6.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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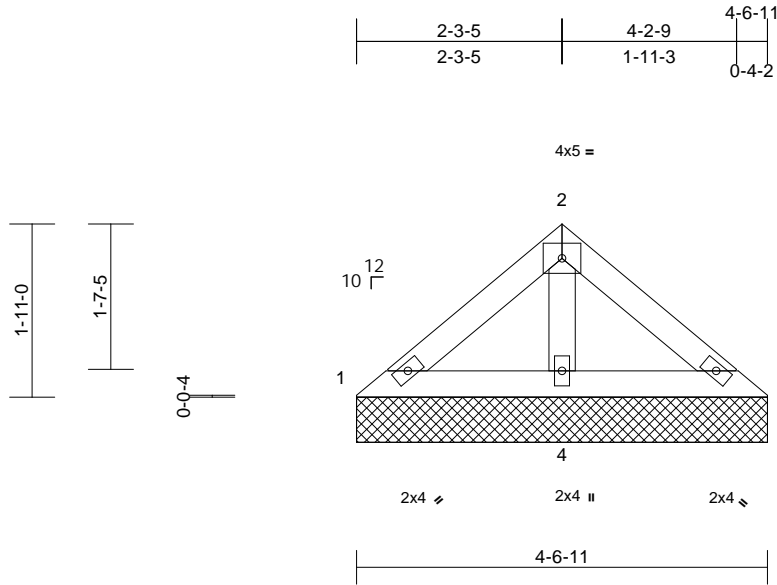
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss VL03	Truss Type Valley	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	145815363
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:25.5

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 16 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=4-6-11, 3=4-6-11, 4=4-6-11
Max Horiz 1=-43 (LC 10)
Max Uplift 1=-1 (LC 14), 3=-8 (LC 15), 4=-35 (LC 14)
Max Grav 1=60 (LC 31), 3=60 (LC 32), 4=265 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

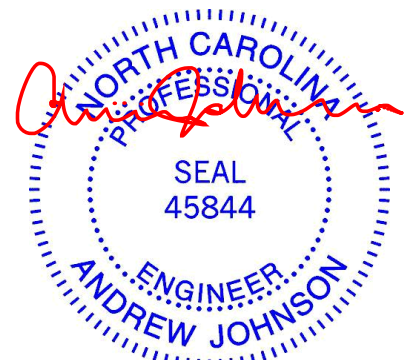
TOP CHORD 1-2=-53/81, 2-3=-13/77
BOT CHORD 1-4=-74/55, 3-4=-74/55
WEBS 2-4=-159/50

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 1, 8 lb uplift at joint 3 and 35 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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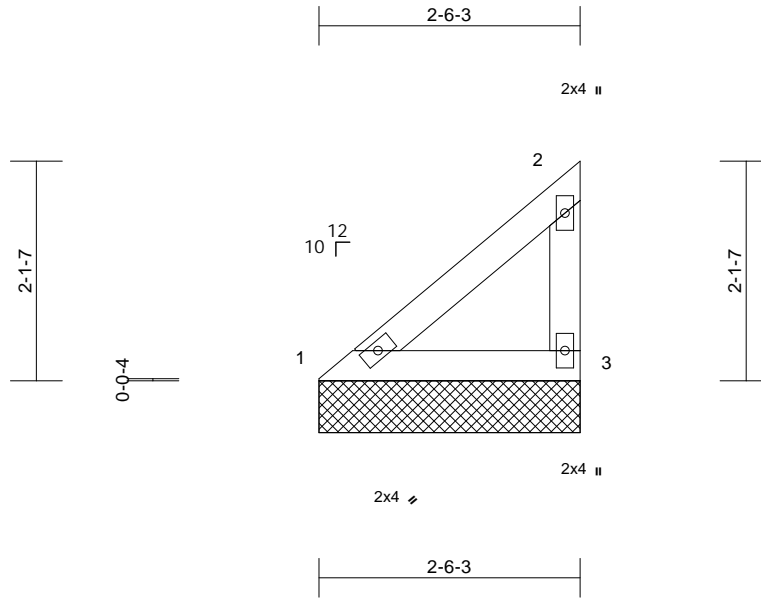
818 Soundside Road
Edenton, NC 27932

Job 21040035-A	Truss VL04	Truss Type Valley	Qty 1	Ply 1	1100 Carolina Way-Roof-BB-2250 Job Reference (optional)	I45815364
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 Apr 20 2021 Print: 8.500 S Apr 20 2021 MiTek Industries, Inc. Sat Apr 24 10:50:03
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Page: 1



Scale = 1:22.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 10 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 sheathing directly applied or 2-6-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)

1=2-6-3, 3=2-6-3
Max Horiz 1=66 (LC 11)
Max Uplift 1=-4 (LC 14), 3=-31 (LC 14)
Max Grav 1=95 (LC 1), 3=107 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

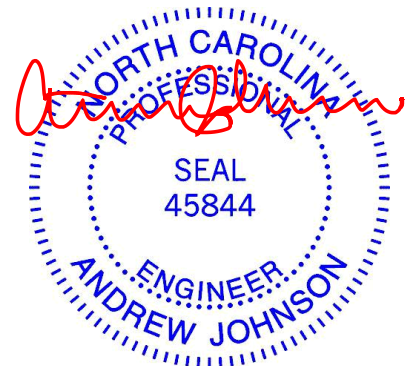
TOP CHORD 1-2=-110/43, 2-3=-68/28
BOT CHORD 1-3=-30/92

NOTES

- 1) Wind: ASCE 7-10; 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 (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.

- 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 3 and 4 lb uplift at joint 1.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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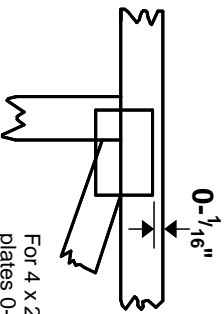
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

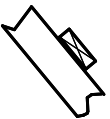
* Plate location details available in **MITek 20/20 software** or upon request.

PLATE SIZE

4 X 4

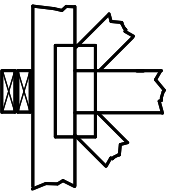
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TFP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8
dimensions shown in ft-in-sixteenths
(Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TFP 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.