ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 22010064-A
INSTALL 61 Willowcroft-Avery-Roof

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: I50198497 thru I50198627

My license renewal date for the state of North Carolina is December 31, 2022.

North Carolina COA: C-0844

February 13,2022

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	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	A1	Hip Girder	1	3	I50198497 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:17 Page: 1
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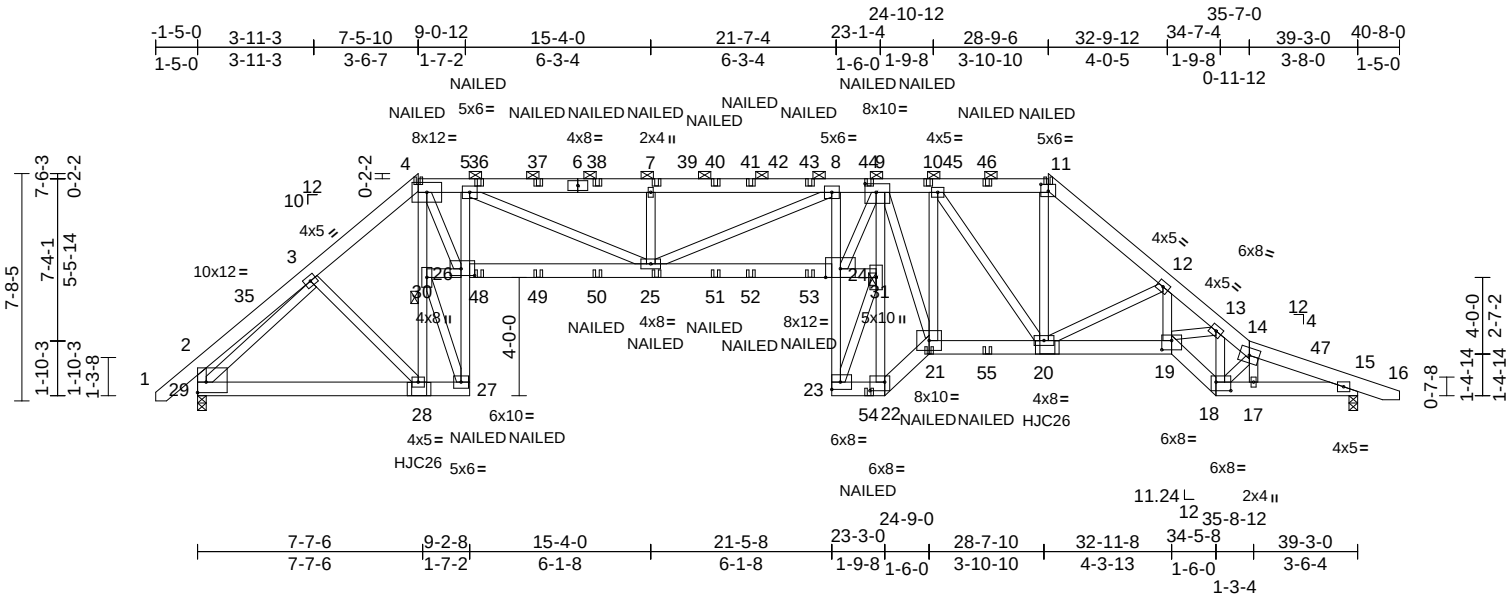

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Plate Offsets (X, Y): [2:Edge,0-4-4], [9:0-4-8,0-3-8], [11:0-3-0,0-2-12], [18:0-6-0,0-3-8], [19:0-4-0,0-3-12], [22:0-6-0,0-3-8], [26:0-5-8,0-2-12]

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	0.39	Vert(LL)	0.73	23	>645	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.78	23	>600	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.61	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 1068 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except* 27-5,8-23:2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 26-4,24-9,22-9:2x4 SP No.1

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.): 4-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 30, 31

REACTIONS (lb/size) 15=2431/0-3-8, 29=2587/0-3-8
Max Horiz 29=-212 (LC 9)
Max Uplift 15=-1536 (LC 12), 29=-1758 (LC 11)
Max Grav 15=3152 (LC 26), 29=3504 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/84, 2-3=-838/451, 3-4=-4372/2402, 4-5=-8689/4810, 5-7=-12265/6702, 7-8=-12265/6702, 8-9=-11885/6370, 9-10=-6091/3309, 10-11=-5481/2942, 11-12=-6888/3629, 12-13=-10965/5507, 13-14=-8039/4038, 14-15=-7591/3757, 15-16=0/28, 2-29=-785/366
BOT CHORD 28-29=-1676/3155, 27-28=-1782/3334, 26-27=-4620/8543, 5-26=-2122/1228, 25-26=-4895/9045, 24-25=-6467/12288, 23-24=-6357/12270, 8-24=-838/630, 22-23=-2702/5199, 21-22=-3228/6216, 20-21=-3168/6145, 19-20=-4011/8176, 18-19=-3937/8046, 17-18=-3578/7308, 15-17=-3502/7166
WEBS 28-30=-123/361, 4-30=-8122/4383, 27-30=-8928/4762, 4-26=-6573/12061, 5-25=-2077/3730, 7-25=-747/512, 8-25=-198/173, 9-24=-7821/14720, 22-31=-2921/1550, 9-31=-15684/8181, 9-21=-1662/3309, 10-21=-242/391, 10-20=-1274/777, 11-20=-2035/3912, 12-20=-3216/1558, 12-19=-1920/4059, 13-19=-1264/2552, 13-18=-3116/1547, 14-18=-1560/759, 14-17=-1349/718, 3-29=-3664/1935, 3-28=-347/539, 26-30=-1522/2859, 23-31=-13664/7099, 24-31=-2617/5038

NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
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) LUGT3 MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 29. 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.

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13) Use MiTek HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 21-3-1 oc max. starting at 7-6-0 from the left end to 28-9-0 to connect truss(es) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
16) Minimum of a triple stud required directly beneath this truss to attach LUGT3 tiedown.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-2=-48, 2-4=-48, 4-11=-58, 11-14=-48, 14-16=-48, 27-29=-20, 24-26=-20, 22-23=-20, 21-22=-20, 19-21=-20, 18-19=-20, 18-32=-20
   Concentrated Loads (lb)
   Vert: 4=-74 (B), 21=-119 (B), 28=-361 (B), 25=-68 (B), 7=-42 (B), 20=-497 (B), 36=-42 (B), 37=-42 (B), 38=-42 (B), 40=-42 (B), 41=-42 (B), 43=-42 (B), 44=-69 (B), 48=-68 (B), 49=-68 (B), 50=-68 (B), 51=-68 (B), 52=-68 (B), 53=-68 (B), 54=-37 (B), 55=-118 (B)

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	A2	Hip	1	1	I50198498 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:22 Page: 1

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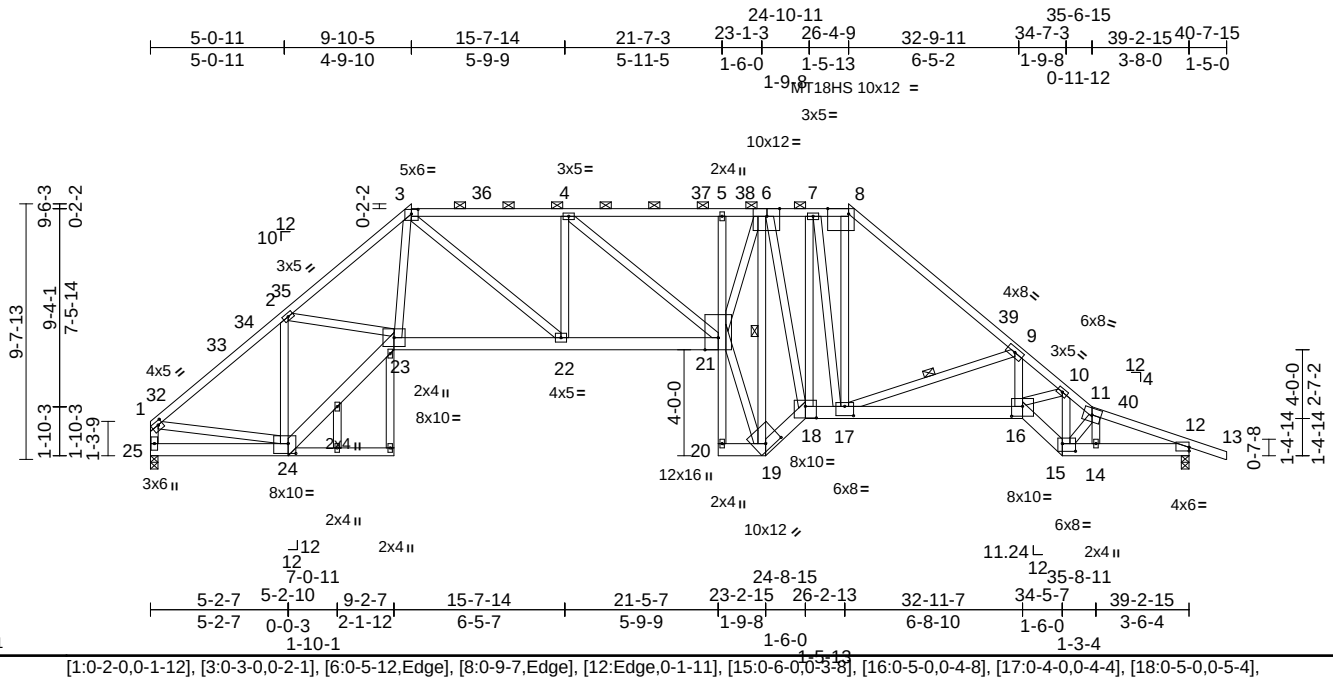


Scale = 1:87.1

Plate Offsets (X, Y): [1:0-2-0,0-1-12], [3:0-3-0,0-2-1], [6:0-5-12,Edge], [8:0-9-7,Edge], [12:Edge,0-1-11], [15:0-6-0,0-3-8], [16:0-5-0,0-4-8], [17:0-4-0,0-4-4], [18:0-5-0,0-5-4], [19:0-7-0,0-2-12], [24:0-3-8,0-4-8]

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)	-0.39	5	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.70	5	>666	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.55	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 346 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E

BOT CHORD 2x6 SP 2400F 2.0E *Except* 5-20:2x4 SP 2400F 2.0E, 24-26:2x4 SP No.3

WEBS 2x4 SP No.3 *Except* 19-21,21-6,19-6:2x4 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-4-2 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-6 max.): 3-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 20-21.

WEBS 1 Row at midpt 6-19, 9-17

REACTIONS (lb/size) 12=1467/0-3-8, 25=1412/0-3-7
Max Horiz 25=-260 (LC 13)
Max Uplift 12=-125 (LC 16), 25=-72 (LC 15)
Max Grav 12=1649 (LC 2), 25=1613 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1888/539, 2-3=-3490/812, 3-4=-3499/860, 4-5=-3492/871, 5-7=-3452/865, 7-8=-1979/658, 8-9=-2580/720, 9-10=-4826/1236, 10-11=-3638/972, 11-12=-3343/863, 12-13=0/34, 1-25=-1551/460

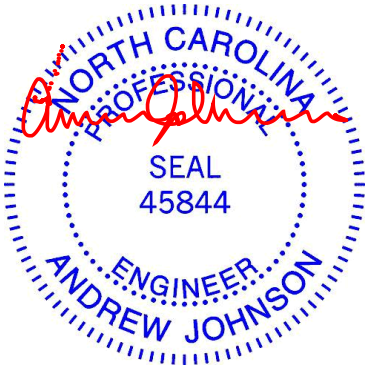
BOT CHORD 24-25=-170/335, 23-24=-386/1913, 22-23=-261/2538, 21-22=-454/3496, 20-21=-335/53, 5-21=-408/163, 19-20=-15/87, 18-19=-279/2076, 17-18=-255/2000, 16-17=-880/3667, 15-16=-821/3586, 14-15=-789/3212, 12-14=-766/3137

WEBS 2-24=-1502/368, 2-23=-37/1381, 3-23=-197/1157, 3-22=-262/1267, 4-22=-649/254, 4-21=-101/155, 19-21=-619/4785, 6-21=-652/4779, 6-19=-4999/677, 6-18=-16/568, 7-18=-191/76, 7-17=-134/387, 8-17=-254/1379, 9-17=-2104/667, 9-16=-326/1845, 10-16=-306/1215, 10-15=-1320/220, 11-15=-723/242, 11-14=-752/238, 1-24=-248/1288

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-13 to 4-0-15, Interior (1) 4-0-15 to 9-10-6, Exterior (2) 9-10-6 to 15-7-15, Interior (1) 15-7-15 to 26-4-10, Exterior (2) 26-4-10 to 31-11-3, Interior (1) 31-11-3 to 40-7-11 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
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) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 25 and 12. 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) 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



February 13,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	A3	Roof Special	1	1	I50198499 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:23 Page: 1

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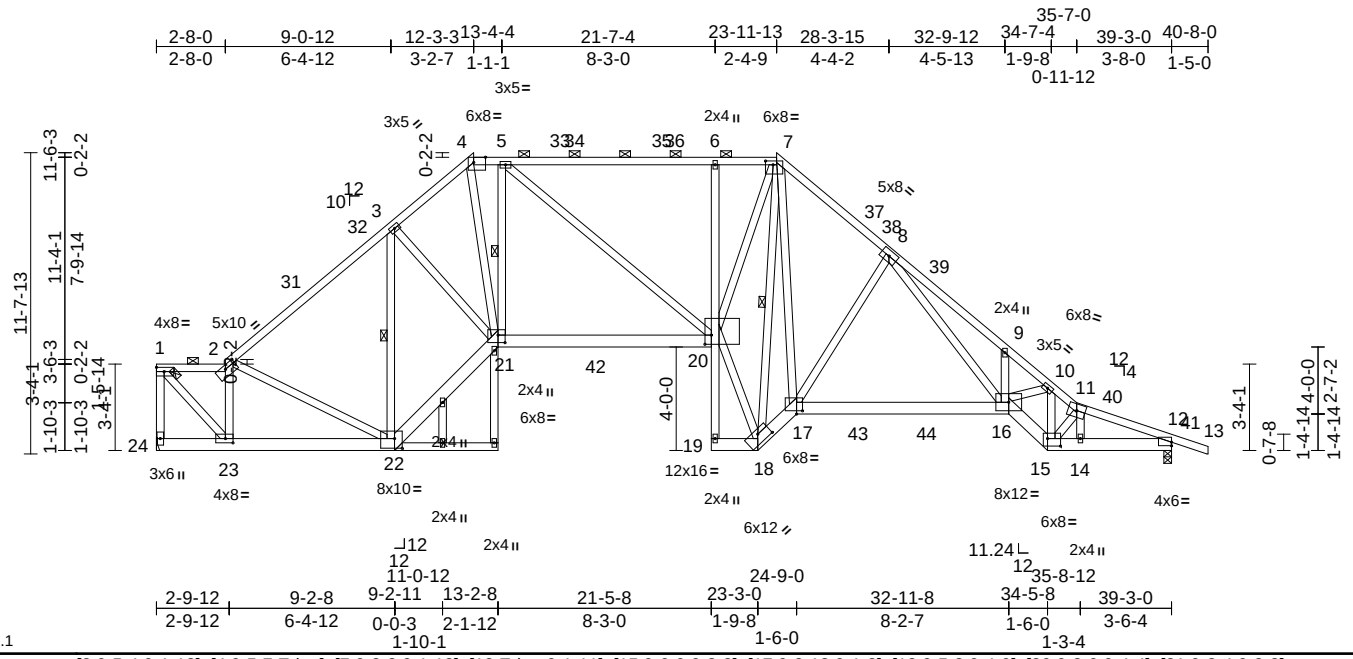


[2:0-5-4,0-1-12], [4:0-5-7,Edge], [7:0-3-8,0-1-12], [12:Edge,0-1-11], [15:0-6-0,0-3-8], [17:0-2-12,0-1-8], [18:0-5-8,0-4-0], [20:0-3-0,0-4-4], [21:0-3-4,0-3-8], Plate Offsets (X, Y): [22:0-3-8,0-4-8], [23:0-3-8,0-2-0]

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	0.55	Vert(LL)	-0.32	16-17	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.65	16-17	>725	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.45	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 360 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E

BOT CHORD 2x6 SP 2400F 2.0E *Except* 6-19,22-25:2x4 SP No.3

WEBS 2x4 SP No.3 *Except* 18-20,20-7,8-16:2x4 SP No.1, 18-7:2x4 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-4-5 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-15 max.): 1-2, 4-7.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 19-20.

WEBS 1 Row at midpt 3-22, 7-18, 5-21

REACTIONS (lb/size) 12=1446/0-3-8, 24=1411/ Mechanical

Max Horiz 24=-339 (LC 13)

Max Uplift 12=-138 (LC 16), 24=-93 (LC 15)

Max Grav 12=1649 (LC 2), 24=1635 (LC 42)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-24=-1582/404, 1-2=-1427/388, 2-3=-1989/545, 3-4=-2414/663, 4-5=-2066/618, 5-6=-2267/664, 6-7=-2251/664, 7-8=-2212/710, 8-9=-5077/1273, 9-10=-5008/1110, 10-11=-3707/917, 11-12=-3403/812, 12-13=0/34

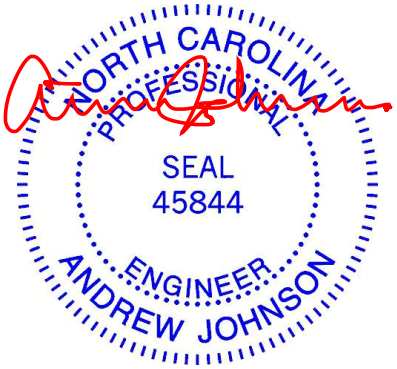
BOT CHORD 23-24=-201/310, 22-23=-227/1412, 21-22=-227/1960, 20-21=-131/2069, 19-20=-393/48, 6-20=-704/255, 18-19=-10/39, 17-18=-90/1610, 16-17=-324/2113, 15-16=-764/3752, 14-15=-712/3274, 12-14=-692/3199

WEBS 1-23=-517/2113, 2-22=-91/120, 3-22=-1250/166, 3-21=0/852, 4-21=-545/1834, 18-20=-208/3154, 7-20=-301/3242, 7-18=-3273/188, 9-16=-239/188, 10-16=-142/1153, 10-15=-1498/244, 11-15=-653/178, 11-14=-753/225, 5-21=-1067/410, 5-20=-159/376, 7-17=-298/1771, 8-17=-1023/390, 8-16=-671/2854, 2-23=-1522/479

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 2-8-0, Interior (1) 2-8-0 to 12-3-3, Exterior (2) 12-3-3 to 16-2-5, Interior (1) 16-2-5 to 23-11-13, Exterior (2) 23-11-13 to 27-10-14, Interior (1) 27-10-14 to 40-7-11 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 24.
11) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12. This connection is for uplift only and does not consider lateral forces.
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) 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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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	A4	Attic	1	1	I50198500 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:25 Page: 1

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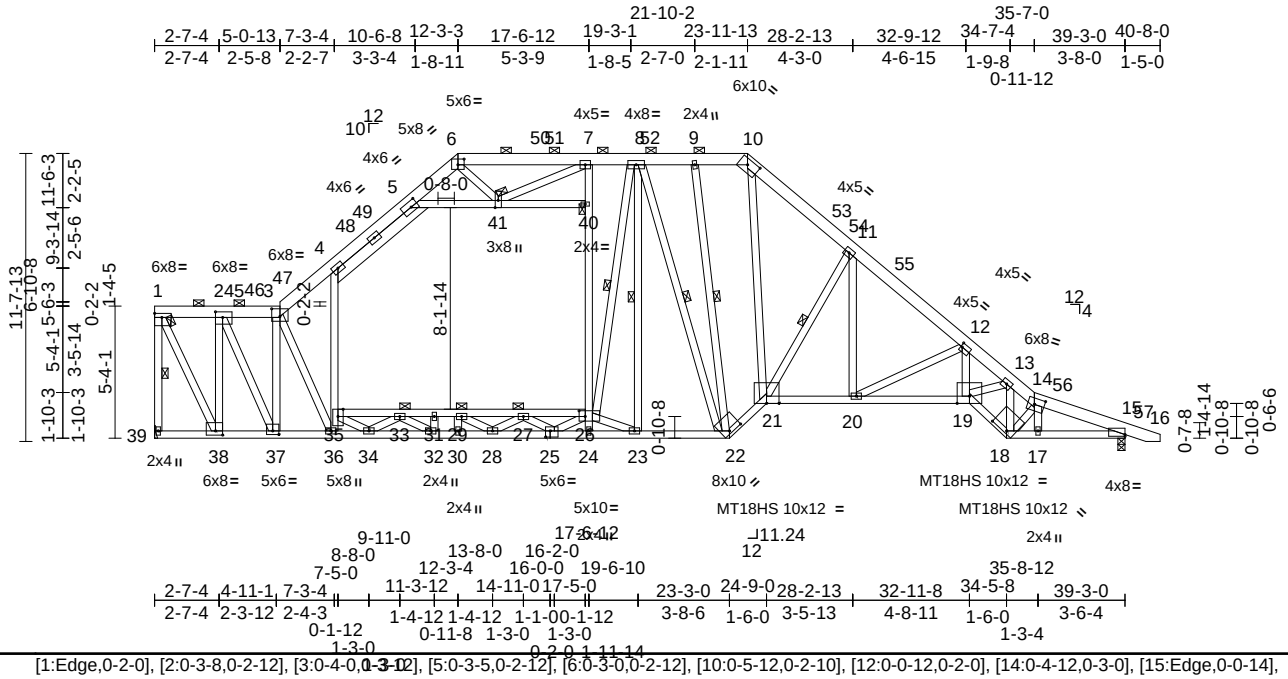

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Plate Offsets (X, Y): [1:Edge,0-2-0], [2:0-3-8,0-2-12], [3:0-4-0,0-3-12], [5:0-3-5,0-2-12], [6:0-3-0,0-2-12], [10:0-5-12,0-2-10], [12:0-0-12,0-2-0], [14:0-4-12,0-3-0], [15:Edge,0-0-14], [18:0-8-4,0-1-4], [22:0-6-4,0-1-4], [25:0-2-4,0-3-0], [26:0-3-0,0-2-12], [37:0-3-0,0-1-12], [38:0-3-8,0-2-0], [41:0-3-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.30	20-21	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.64	20-21	>738	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.38	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	0.11	26-35	>999	360		
BCDL	10.0										Weight: 420 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E

BOT CHORD 2x4 SP 2400F 2.0E *Except* 35-26:2x4 SP No.3

WEBS 2x4 SP No.3 *Except* 5-40:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3, 6-10.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
4-9-0 oc bracing: 27-33
6-0-0 oc bracing: 33-35, 26-27

WEBS 1 Row at midpt 1-39, 11-21, 8-22, 9-22, 8-23, 8-26

JOINTS 1 Brace at Jt(s): 1, 40, 27, 33, 41

REACTIONS (lb/size) 15=1602/0-3-8, 39=1821/ Mechanical
Max Horiz 39=-371 (LC 13)
Max Uplift 15=-32 (LC 16)
Max Grav 15=1799 (LC 2), 39=2258 (LC 52)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-39=-2230/219, 1-2=-1068/169, 2-3=-1912/213, 3-4=-2776/283, 4-5=-2206/342, 5-6=-920/225, 6-7=-953/239, 7-8=-1954/408, 8-9=-1843/439, 9-10=-1707/435, 10-11=-2655/520, 11-12=-3317/507, 12-13=-5618/811, 13-14=-3991/656, 14-15=-3991/640, 15-16=0/28

BOT CHORD 38-39=-226/331, 37-38=-26/1215, 36-37=-3/2076, 34-36=0/1949, 32-34=0/2838, 30-32=0/3121, 28-30=0/3121, 24-28=-455/2812, 23-24=-402/1858, 22-23=0/1877, 21-22=0/2128, 20-21=-115/2518, 19-20=-464/4200, 18-19=-528/4117, 17-18=-526/3732, 15-17=-518/3704, 33-35=-502/2, 31-33=-1290/0, 29-31=-1290/0, 27-29=-1177/143, 26-27=-655/712

WEBS 3-37=-1929/129, 3-36=-316/195, 35-36=-64/408, 4-35=0/796, 24-26=0/134, 26-40=0/550, 7-40=0/575, 12-19=-267/2156, 13-19=-103/1452, 13-18=-1808/171, 14-18=-995/206, 14-17=-279/76, 5-41=-1563/196, 40-41=-33/59, 2-37=-120/2084, 2-38=-2041/237, 1-38=-211/2378, 10-21=-197/2254, 11-21=-1435/335, 11-20=-119/1115, 12-20=-1915/390, 8-22=-203/462, 9-22=-1330/61, 8-23=-621/74, 23-26=-344/1455, 8-26=-240/925, 25-26=0/1066, 34-35=0/652, 25-27=-893/0, 33-34=-758/29, 27-28=0/519, 32-33=-135/399, 28-29=-474/132, 31-32=-70/33, 29-30=-112/68, 6-41=-39/849, 7-41=-1158/182

NOTES

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

2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 4-0-14, Interior (1) 4-0-14 to 12-3-3, Exterior (2) 12-3-3 to 16-2-5, Interior (1) 16-2-5 to 23-11-13, Exterior (2) 23-11-13 to 27-10-14, Interior (1) 27-10-14 to 40-4-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0

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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.

6) Provide adequate drainage to prevent water ponding.

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Edenton, NC 27932

7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 3x5 MT20 unless otherwise indicated.
9) The Fabrication Tolerance at joint 21 = 12%, joint 22 = 12%
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 (10.0 psf) on member(s). 3-4, 4-5, 5-41, 40-41
12) 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, 27-29, 26-27
13) Refer to girder(s) for truss to truss connections.
14) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15. This connection is for uplift only and does not consider lateral forces.
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) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	A5	Attic	1	1	I50198501 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:27 Page: 1

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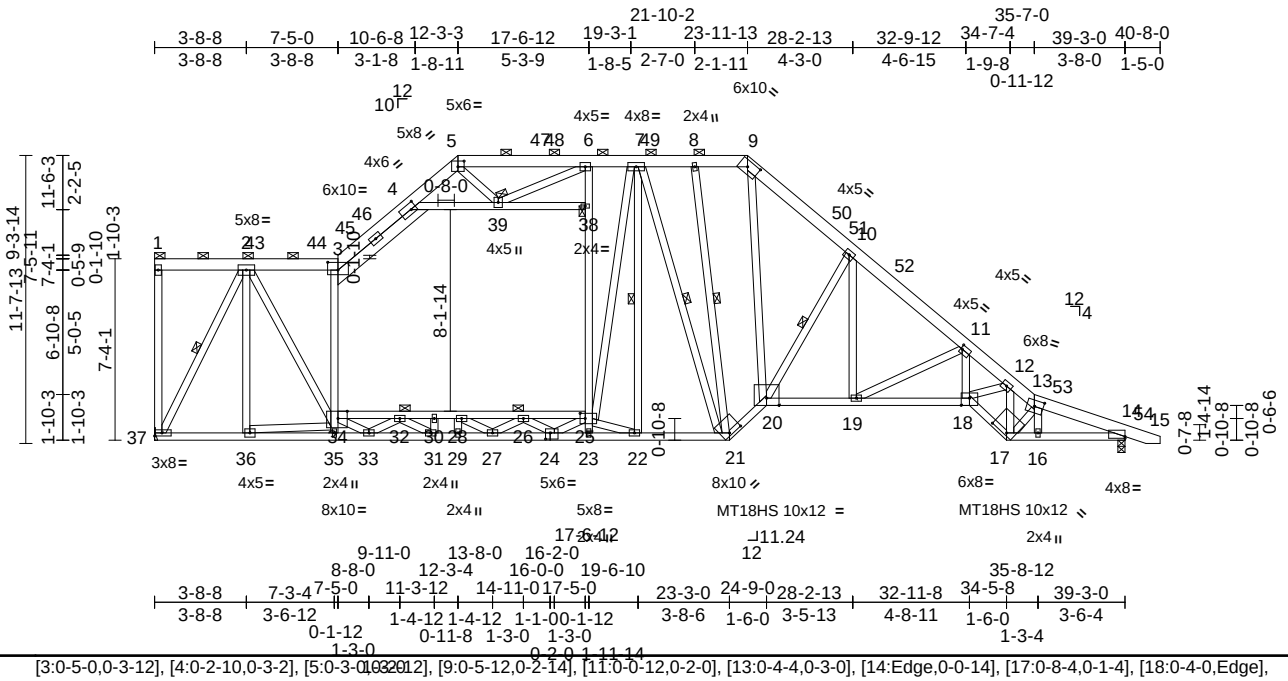

Plate Offsets (X, Y): [3:0-5-0,0-3-12], [4:0-2-10,0-3-2], [5:0-3-0,0-3-12], [9:0-5-12,0-2-14], [11:0-0-12,0-2-0], [13:0-4-4,0-3-0], [14:Edge,0-0-14], [17:0-8-4,0-1-4], [18:0-4-0,Edge], [21:0-6-4,0-1-4], [24:0-2-4,0-3-0], [25:0-2-8,0-2-8], [34:0-4-8,Edge]

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	0.59	Vert(LL)	-0.29	19-20	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.61	19-20	>772	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.37	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.06	25-34	>999	360		
BCDL	10.0										Weight: 421 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E

BOT CHORD 2x4 SP 2400F 2.0E *Except* 34-25:2x4 SP No.3

WEBS 2x4 SP No.3 *Except* 4-38:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3, 5-9.

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

WEBS 1 Row at midpt 2-37, 10-20, 7-21, 8-21, 7-22

JOINTS 1 Brace at Jt(s): 1, 38, 26, 32, 39

REACTIONS (lb/size) 14=1598/0-3-8, 37=1797/ Mechanical

Max Horiz 37=-400 (LC 13)

Max Uplift 14=-36 (LC 16)

Max Grav 14=1791 (LC 2), 37=2307 (LC 52)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-37=-95/77, 1-2=-132/144, 2-3=-2040/216, 3-4=-2250/355, 4-5=-890/226, 5-6=-930/235, 6-7=-2038/412, 7-8=-1852/449, 8-9=-1719/444, 9-10=-2597/533, 10-11=-3252/522, 11-12=-5516/835, 12-13=-3920/673, 13-14=-3949/656, 14-15=0/28

BOT CHORD 36-37=-6/1256, 35-36=-260/1622, 33-35=-279/1630, 31-33=0/2570, 29-31=0/2691, 27-29=0/2691, 23-27=-261/2249, 22-23=-239/1391, 21-22=0/1895, 20-21=0/2145, 19-20=-127/2467, 18-19=-481/4124, 17-18=-545/4044, 16-17=-541/3682, 14-16=-533/3655, 32-34=-366/829, 30-32=-886/83, 28-30=-886/83, 26-28=-661/0, 25-26=-113/628

WEBS 34-35=-4/74, 3-34=-999/266, 23-25=0/129, 25-38=0/495, 6-38=0/520, 9-20=-207/2210, 11-18=-276/2142, 12-18=-109/1424, 12-17=-1774/177, 13-17=-991/210, 13-16=-273/77, 4-39=-1718/208, 38-39=-21/28, 2-34=-169/1738, 2-37=-2486/262, 2-36=-72/231, 34-36=-516/468, 24-25=0/1040, 33-34=0/806, 24-26=-870/0, 32-33=-764/4, 26-27=-44/448, 31-32=-103/442, 27-28=-377/223, 30-31=-102/31, 28-29=-127/58, 10-20=-1420/329, 10-19=-123/1098, 11-19=-1881/397, 7-21=-219/490, 8-21=-1317/57, 7-22=-570/21, 22-25=0/1327, 7-25=-36/891, 5-39=-47/907, 6-39=-1250/195

NOTES

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

2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 4-0-14, Interior (1) 4-0-14 to 12-3-3, Exterior (2) 12-3-3 to 16-2-5, Interior (1) 16-2-5 to 23-11-13, Exterior (2) 23-11-13 to 27-10-14, Interior (1) 27-10-14 to 40-4-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0

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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.

6) Provide adequate drainage to prevent water ponding.

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7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 3x5 MT20 unless otherwise indicated.
9) The Fabrication Tolerance at joint 20 = 16%, joint 21 = 12%
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 (10.0 psf) on member(s). 3-4, 4-39, 38-39
12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 32-34, 30-32, 28-30, 26-28, 25-26
13) Refer to girder(s) for truss to truss connections.
14) One RT7A 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.
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) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	A6	Attic Girder	1	3	I50198502 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:29 Page: 1

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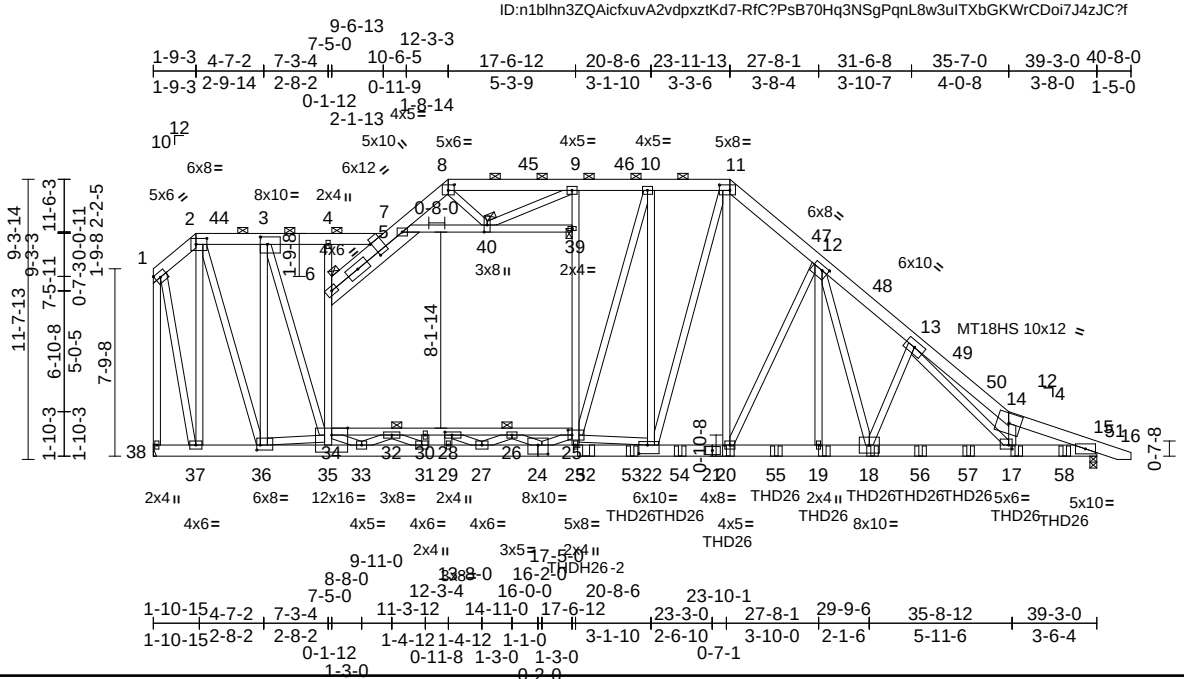

Scale = 1:95.9

Plate Offsets (X, Y): [2:0-5-8,0-3-0], [3:0-3-8,0-3-12], [5:0-7-8,0-0-9], [8:0-3-0,0-2-12], [11:0-5-4,0-2-12], [12:0-3-0,0-2-4], [17:0-1-12,0-2-0], [22:0-4-4,0-4-4], [24:0-5-0,0-4-8], [25:0-2-0,0-2-8], [28:0-3-8,0-1-8], [36:0-1-12,0-2-8], [40:0-3-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.27	22-23	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.58	22-23	>807	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.05	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.13	25-34	>923	360		
BCDL	10.0										Weight: 1472 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E

BOT CHORD 2x6 SP 2400F 2.0E *Except* 34-25:2x4 SP 2400F 2.0E

WEBS 2x4 SP No.3 *Except* 4-35,9-23,36-34,34-3,13-17:2x4 SP 2400F 2.0E, 7-39:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-5, 5-6, 8-11.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 35-36,33-35,31-33.

JOINTS 1 Brace at Jt(s): 6, 39, 40, 26, 32

REACTIONS (lb/size) 15=7592/0-3-8, 38=4889/ Mechanical

Max Horiz 38=-418 (LC 9)

Max Uplift 15=-650 (LC 12), 38=-187 (LC 7)

Max Grav 15=8744 (LC 2), 38=5659 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1453/145, 2-3=-2615/135, 3-4=-6286/277, 4-5=-5633/237, 5-6=-1625/67, 5-7=-5794/272, 7-8=-3247/159, 8-9=-3867/171, 9-10=-6682/357, 10-11=-7752/529, 11-12=-9529/682, 12-13=-13752/1009, 13-14=-25292/1879, 14-15=-20157/1409, 15-16=0/28, 1-38=-5485/168

BOT CHORD 37-38=-171/369, 36-37=-114/1234, 35-36=-8323/1117, 33-35=-10032/1242, 31-33=-3293/980, 29-31=0/2542, 27-29=0/2542, 23-27=-1063/14791, 22-23=-959/14300, 20-22=-279/7351, 19-20=-389/8947, 18-19=-389/8947, 17-18=-684/11620, 15-17=-1280/18875, 32-34=-1167/13416, 30-32=-626/4883, 28-30=-626/4883, 26-28=-743/113, 25-26=-6047/652

WEBS 2-37=-4733/270, 34-35=-124/1821, 6-34=-3904/242, 4-6=-2360/202, 23-25=-4/1648, 25-39=-136/2254, 9-39=-119/2279, 11-20=-516/4725, 14-17=-8831/746, 7-40=-4269/234, 39-40=-55/484, 1-37=-225/4765, 3-36=-8570/520, 2-36=-184/5191, 34-36=-900/11161, 3-34=-603/10975, 8-40=-77/2306, 9-40=-3579/248, 11-22=-62/1785, 12-20=-4004/521, 13-17=-1021/12382, 12-19=-68/813, 12-18=-537/5629, 13-18=-3045/391, 10-22=-464/3097, 22-25=-6804/801, 10-25=-3964/624, 24-25=-2881/500, 33-34=-58/3630, 24-26=-513/3376, 32-33=-5183/253, 26-27=-3869/465, 31-32=-377/5365, 27-28=-542/5552, 30-31=-722/50, 28-29=-2341/184

NOTES

1) 3-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.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
6) Unbalanced snow loads have been considered for this design.

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

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7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) All plates are MT20 plates unless otherwise indicated.
10) * 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 (10.0 psf) on member(s). 4-5, 5-7, 7-40, 39-40
12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 32-34, 30-32, 28-30, 26-28, 25-26
13) Refer to girder(s) for truss to truss connections.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 187 lb uplift at joint 38.
15) One RT8A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15. This connection is for uplift only and does not consider lateral forces.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
18) Use MiTek THDH26-2 (With 22-16d nails into Girder & 8-16d nails into Truss) or equivalent at 24-6-0 from the left end to connect truss(es) to front face of bottom chord.
19) Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 26-5-0 from the left end to 44-5-0 to connect truss(es) to front face of bottom chord.

20) Fill all nail holes where hanger is in contact with lumber.
21) 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=-48, 2-4=-58, 4-5=-78, 5-7=-68, 7-8=-48, 8-11=-58, 11-14=-48, 14-16=-48, 38-41=-20, 25-34=-30, 7-40=-20, 39-40=-20
   Concentrated Loads (lb)
   Vert: 20=-663 (F), 17=-672 (F), 19=-663 (F), 18=-663 (F), 52=-2437 (F), 53=-663 (F), 54=-663 (F), 55=-663 (F), 56=-663 (F), 57=-663 (F), 58=-664 (F)

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	A7	Attic	1	1	I50198503 Job Reference (optional)

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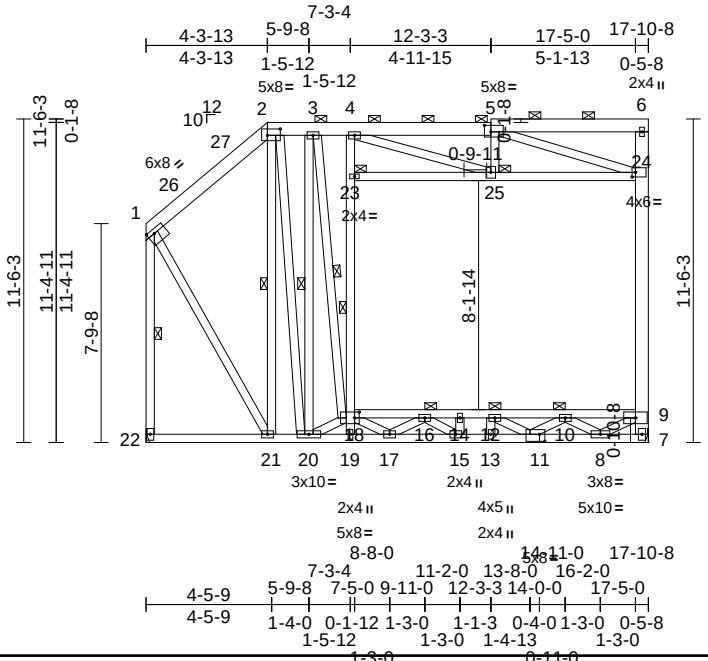

Scale = 1:82

Plate Offsets (X, Y): [1:0-3-0,0-1-12], [2:0-5-8,0-2-12], [5:0-2-12,0-2-12], [11:0-2-4,0-3-0], [18:0-2-0,0-2-8], [24:0-1-8,0-2-0]

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	0.88	Vert(LL)	-0.14	16-18	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.28	16-18	>756	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.07	9-18	>999	360		
BCDL	10.0										Weight: 263 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E *Except* 18-9:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 6-7:2x6 SP 2400F 2.0E, 23-24:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
2-11-0 oc bracing: 16-18
4-3-0 oc bracing: 10-16
6-8-0 oc bracing: 9-10
WEBS 1 Row at midpt 2-21, 18-23, 1-22, 3-20, 3-18
JOINTS 1 Brace at Jt(s): 23, 25, 16, 10

REACTIONS (lb/size) 7=1038/ Mechanical, 22=795/ Mechanical
Max Horiz 22=437 (LC 10)
Max Uplift 7=-21 (LC 10)
Max Grav 7=1410 (LC 3), 22=972 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-547/273, 2-3=-485/263, 3-4=-427/244, 4-6=-725/563, 7-9=-1385/157, 9-24=-551/156, 6-24=-147/81, 1-22=-941/130
BOT CHORD 21-22=-410/326, 20-21=-379/514, 19-20=-1085/2288, 17-19=-1162/2415, 15-17=-415/2678, 13-15=-34/2388, 8-13=-34/2388, 7-8=-1282/551, 16-18=-2324/580, 14-16=-2166/0, 12-14=-2166/0, 10-12=-1395/0, 9-10=-712/691
WEBS 1-21=-69/680, 2-21=-394/141, 18-19=-17/72, 18-23=-211/211, 4-23=-169/234, 23-25=-49/109, 24-25=-216/540, 5-25=-30/139, 4-25=-188/488, 5-24=-1233/318, 3-20=-554/725, 2-20=-111/463, 18-20=-2096/837, 3-18=-922/685, 17-18=-104/485, 16-17=-489/319, 15-16=-531/465, 14-15=-114/162, 12-13=-126/209, 11-12=-1049/393, 10-11=-157/688, 8-10=-1213/56, 8-9=-86/1429

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 6-7-12 to 9-7-12, Interior (1) 9-7-12 to 10-9-13, Exterior (2) 10-9-13 to 13-9-4, Interior (1) 13-9-4 to 24-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
3) Provide adequate drainage to prevent water ponding.
4) All plates are 3x5 MT20 unless otherwise indicated.
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) Ceiling dead load (10.0 psf) on member(s). 23-25, 24-25
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 16-18, 14-16, 12-14, 10-12, 9-10
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 7.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	A8	Attic	1	1	I50198504 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:32 Page: 1

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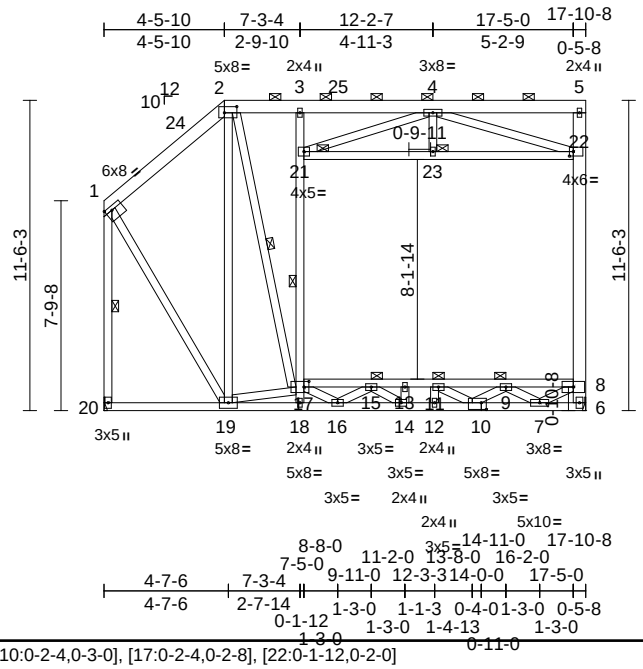

Scale = 1:85.5

Plate Offsets (X, Y): [1:0-3-0,0-1-12], [2:0-5-8,0-2-12], [10:0-2-4,0-3-0], [17:0-2-4,0-2-8], [22:0-1-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.14	15-17	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.27	15-17	>769	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.07	8-17	>999	360		
BCDL	10.0										Weight: 234 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2

BOT CHORD 2x4 SP 2400F 2.0E *Except* 17-8:2x4 SP No.3

WEBS 2x4 SP No.3 *Except* 5-6:2x6 SP 2400F 2.0E, 21-22:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-5.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
2-11-0 oc bracing: 15-17
4-3-0 oc bracing: 9-15
6-11-0 oc bracing: 8-9

WEBS 1 Row at midpt 2-17, 17-21, 1-20

JOINTS 1 Brace at Jt(s): 21, 15, 9, 23

REACTIONS (lb/size) 6=1038/ Mechanical, 20=793/ Mechanical
Max Horiz 20=435 (LC 10)
Max Uplift 6=-20 (LC 10)
Max Grav 6=1410 (LC 3), 20=972 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-547/278, 2-3=-425/247, 3-4=-460/248, 4-5=-97/546, 6-8=-1384/160, 8-22=-548/159, 5-22=-145/80, 1-20=-933/135

BOT CHORD 19-20=-409/329, 18-19=-1230/2321, 16-18=-1297/2457, 14-16=-523/2745, 12-14=-125/2415, 7-12=-125/2415, 6-7=-1254/519, 15-17=-2409/711, 13-15=-2177/0, 11-13=-2177/0, 9-11=-1407/0, 8-9=-661/632

WEBS 1-19=-63/673, 2-19=-330/386, 2-17=-552/512, 17-18=-103/82, 17-21=-300/185, 3-21=-94/175, 21-23=-224/523, 22-23=-224/523, 4-21=-482/196, 4-22=-1208/327, 17-19=-1977/885, 16-17=-87/526, 15-16=-509/338, 14-15=-551/486, 13-14=-119/165, 11-12=-134/216, 10-11=-1061/419, 9-10=-172/695, 7-9=-1213/72, 7-8=-100/1436, 4-23=0/129

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 6-7-12 to 9-7-12, Interior (1) 9-7-12 to 10-11-10, Exterior (2) 10-11-10 to 15-2-8, Interior (1) 15-2-8 to 24-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Provide adequate drainage to prevent water ponding.
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) Ceiling dead load (10.0 psf) on member(s). 21-23, 22-23
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 15-17, 13-15, 11-13, 9-11, 8-9
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 6.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	A9	Monopitch Supported Gable	1	1	I50198505 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:33
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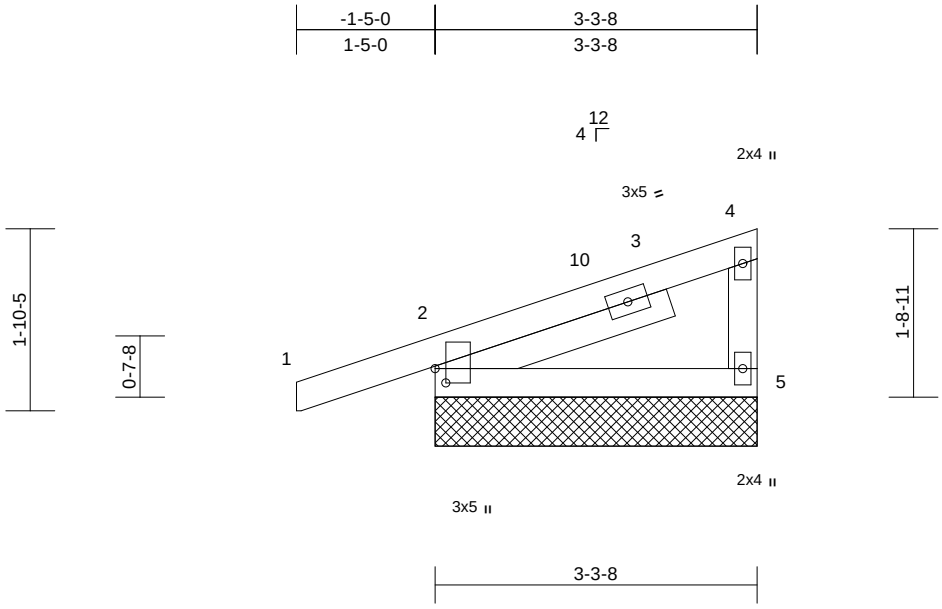

Scale = 1:23.6

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

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	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	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: 18 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -- 2-6-0

BRACING

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

REACTIONS (lb/size) 2=188/3-3-8, 5=92/3-3-8, 6=188/3-3-8
Max Horiz 2=63 (LC 14), 6=63 (LC 14)
Max Uplift 2=-84 (LC 11), 5=-18 (LC 15), 6=-84 (LC 11)
Max Grav 2=228 (LC 2), 5=107 (LC 2), 6=228 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/33, 2-4=-173/135, 4-5=-86/157
BOT CHORD	2-5=-33/45

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) -1-4-11 to 1-7-5, Exterior (2) 1-7-5 to 3-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
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.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	B1	Common Supported Gable	1	1	I50198506 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:33 Page: 1
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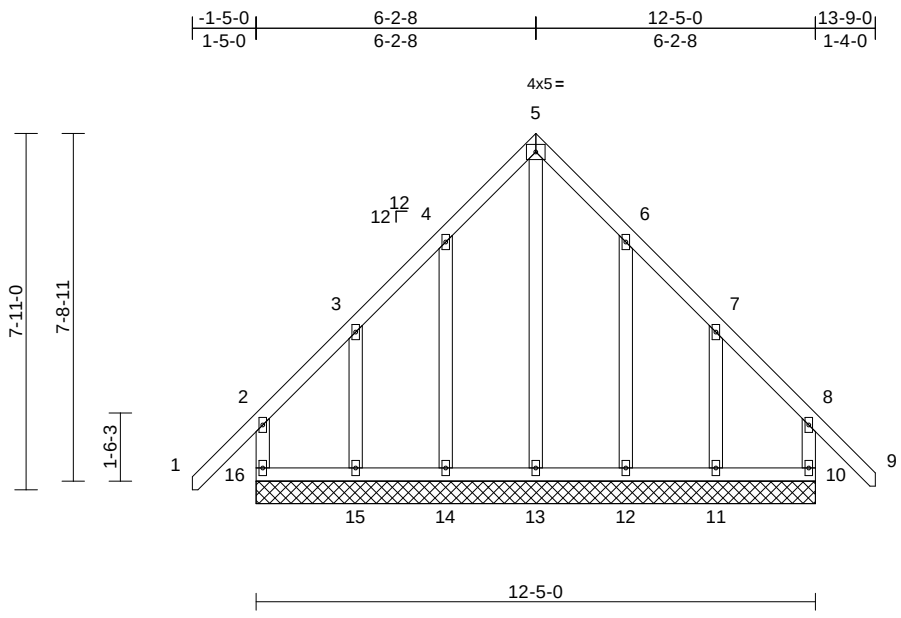

Scale = 1:51.2

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	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 89 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 6-0-0 oc bracing.

REACTIONS (lb/size) 10=137/12-5-0, 11=127/12-5-0, 12=143/12-5-0, 13=142/12-5-0, 14=144/12-5-0, 15=122/12-5-0, 16=145/12-5-0
Max Horiz 16=249 (LC 12)
Max Uplift 10=-139 (LC 10), 11=-153 (LC 9), 12=-79 (LC 14), 14=-79 (LC 13), 15=-158 (LC 10), 16=-149 (LC 9)
Max Grav 10=222 (LC 25), 11=255 (LC 26), 12=181 (LC 26), 13=292 (LC 14), 14=181 (LC 25), 15=255 (LC 25), 16=236 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-187/242, 1-2=0/80, 2-3=-147/167, 3-4=-188/267, 4-5=-298/403, 5-6=-299/402, 6-7=-187/269, 7-8=-136/157, 8-9=0/76, 8-10=-175/230
BOT CHORD	15-16=-127/124, 14-15=-127/124, 13-14=-127/124, 12-13=-127/124, 11-12=-127/124, 10-11=-127/124
WEBS	5-13=-473/277, 4-14=-198/175, 3-15=-233/197, 6-12=-197/173, 7-11=-234/200

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) -1-4-4 to 1-7-12, Exterior (2) 1-7-12 to 6-2-8, Corner (3) 6-2-8 to 9-2-8, Exterior (2) 9-2-8 to 13-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
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.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	B2	Piggyback Base Structural Gable	1	1	I50198507 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:34 Page: 1

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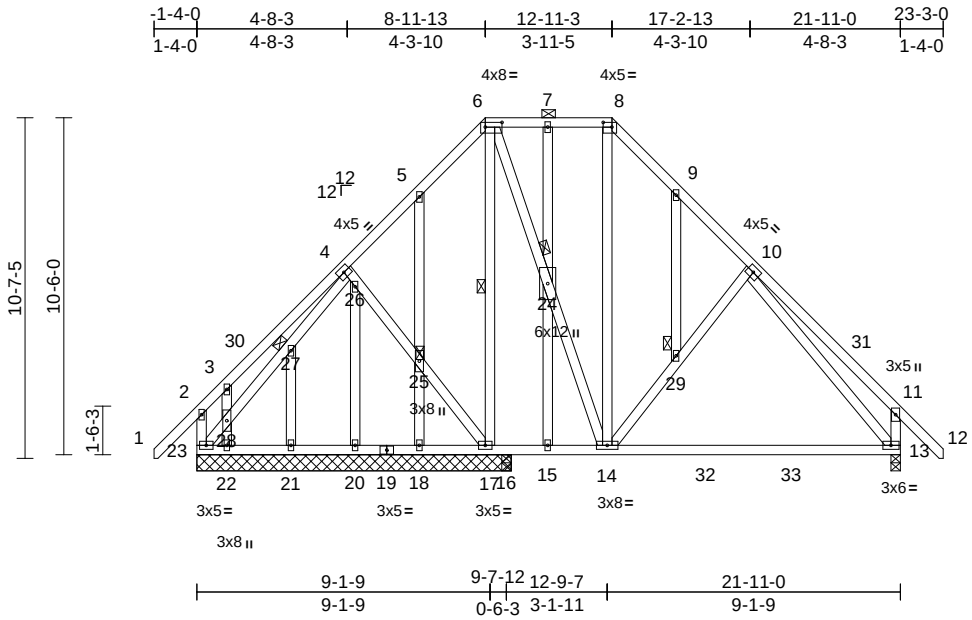

Scale = 1:71.8

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

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	0.42	Vert(LL)	-0.16	13-14	>934	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.31	13-14	>464	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.01	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 221 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, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 6-17
JOINTS	1 Brace at Jt(s): 24, 25, 27, 29

REACTIONS (lb/size) 13=547/0-3-8, 16=181/0-3-8, 17=279/9-9-8, 18=143/9-9-8, 20=79/9-9-8, 21=74/9-9-8, 22=143/9-9-8, 23=193/9-9-8
Max Horiz 23=-322 (LC 11)
Max Uplift 13=-62 (LC 14), 16=-85 (LC 9), 17=-39 (LC 13), 18=-89 (LC 13), 22=-180 (LC 13), 23=-134 (LC 9)
Max Grav 13=663 (LC 26), 16=196 (LC 2), 17=448 (LC 25), 18=196 (LC 25), 20=87 (LC 2), 21=92 (LC 26), 22=248 (LC 25), 23=273 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/76, 2-3=-26/168, 3-4=-201/208, 4-5=-215/165, 5-6=-308/279, 6-7=-364/267, 7-8=-364/267, 8-9=-421/273, 9-10=-414/216, 10-11=-375/221, 11-12=0/76, 2-23=-141/191, 11-13=-446/298
BOT CHORD	22-23=-159/223, 21-22=-159/223, 20-21=-159/223, 18-20=-159/223, 17-18=-159/223, 16-17=-219/268, 15-16=-219/268, 14-15=-219/268, 13-14=0/289
WEBS	6-17=-350/0, 6-24=-96/401, 14-24=-98/441, 8-14=-48/137, 23-28=-254/88, 27-28=-257/92, 4-27=-296/103, 10-13=-335/6, 14-29=-360/292, 10-29=-313/251, 4-26=-232/197, 25-26=-228/218, 17-25=-239/222, 7-24=-127/28, 15-24=-157/20, 5-25=-220/177, 18-25=-206/172, 20-26=-49/0, 21-27=-49/14, 3-28=-384/199, 22-28=-377/192, 9-29=-62/53

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-4 to 1-8-12, Interior (1) 1-8-12 to 8-11-13, Exterior (2) 8-11-13 to 17-4-12, Interior (1) 17-4-12 to 23-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) N/A
12) N/A

February 13,2022

Continued on page 2

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

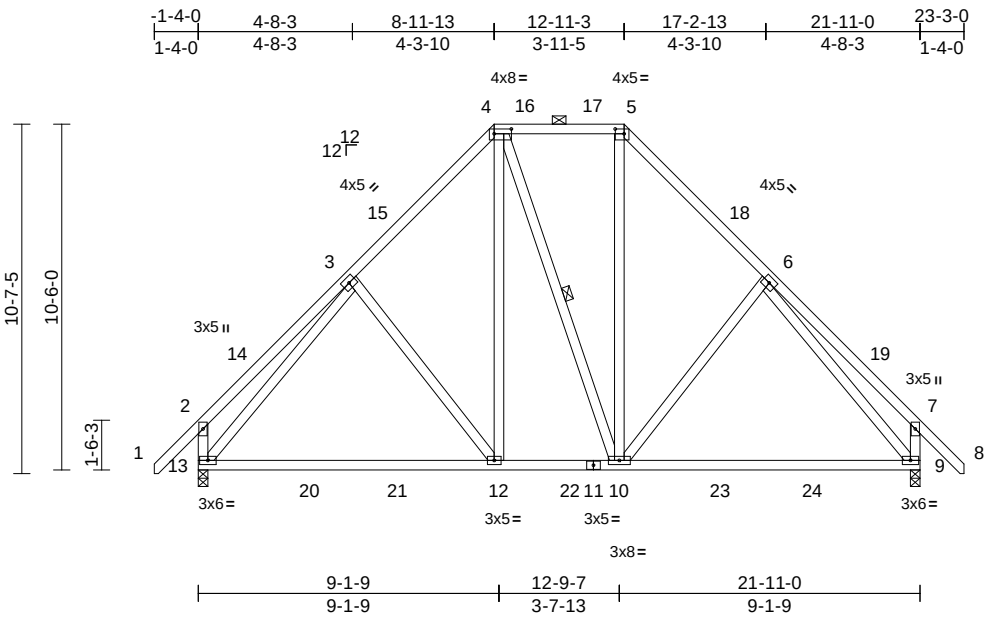
13) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
15) 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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	B3	Piggyback Base	3	1	I50198508 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:35 Page: 1

ID:s13fhVbzcTdnthWX2JnVbuztK8l-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:70

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

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	0.47	Vert(LL)	-0.18	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.36	9-10	>716	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 172 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, 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 4-10

REACTIONS (lb/size) 9=820/0-3-8, 13=820/0-3-8
Max Horiz 13=-322 (LC 11)
Max Uplift 9=-71 (LC 14), 13=-71 (LC 13)
Max Grav 9=950 (LC 2), 13=950 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/76, 2-3=-388/213, 3-4=-799/367, 4-5=-622/335, 5-6=-800/367, 6-7=-387/213, 7-8=0/76, 2-13=-453/291, 7-9=-453/291
BOT CHORD 12-13=-158/688, 10-12=-62/577, 9-10=-24/552
WEBS 4-12=-113/360, 4-10=-126/128, 5-10=-116/356, 3-13=-697/100, 6-9=-697/100, 3-12=-293/247, 6-10=-293/247

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-4 to 1-8-12, Interior (1) 1-8-12 to 8-11-13, Exterior (2) 8-11-13 to 11-11-13, Interior (1) 11-11-13 to 12-11-3, Exterior (2) 12-11-3 to 15-11-3, Interior (1) 15-11-3 to 23-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 and 9. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	B4	Piggyback Base	4	1	I50198509 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:36

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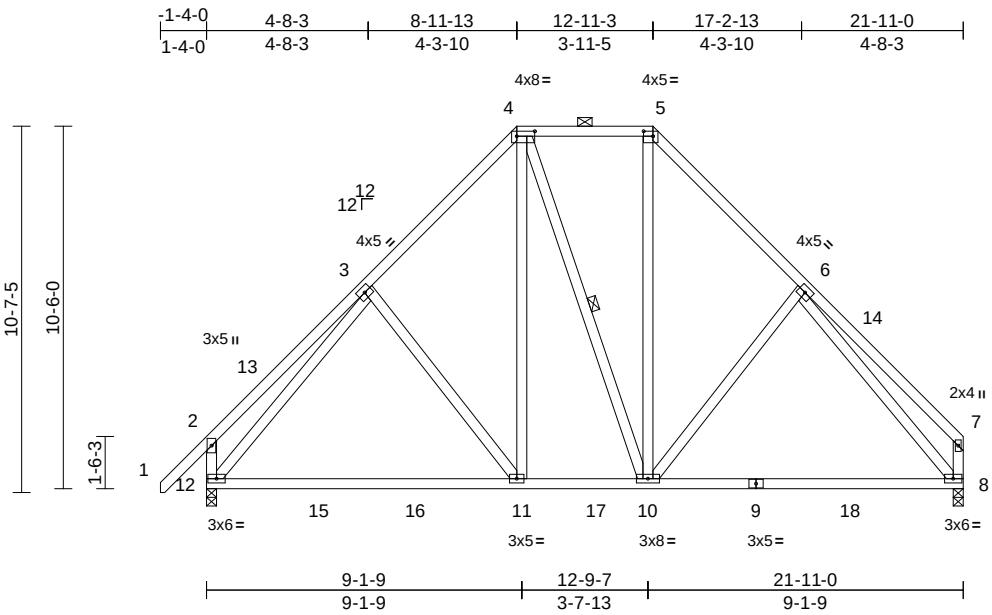


Scale = 1:66.7

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

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	0.47	Vert(LL)	-0.18	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.37	11-12	>710	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 169 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, 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 4-10

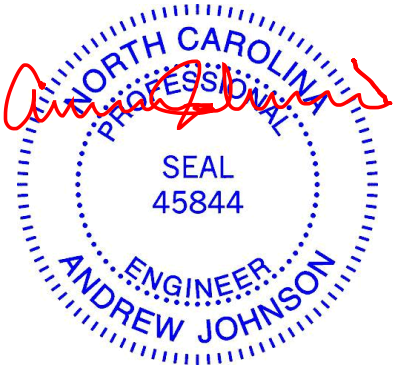
REACTIONS (lb/size) 8=750/0-3-8, 12=822/0-3-8
Max Horiz 12=310 (LC 10)
Max Uplift 8=-48 (LC 14), 12=-71 (LC 13)
Max Grav 8=867 (LC 3), 12=953 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/76, 2-3=-388/210, 3-4=-801/379, 4-5=-623/347, 5-6=-804/388, 6-7=-332/158, 2-12=-453/292, 7-8=-329/153
BOT CHORD 11-12=-180/671, 10-11=-84/561, 8-10=-139/541
WEBS 4-11=-124/363, 4-10=-125/128, 5-10=-135/361, 3-12=-700/111, 6-8=-701/185, 6-10=-302/263, 3-11=-293/260

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-4 to 1-8-12, Interior (1) 1-8-12 to 8-11-13, Exterior (2) 8-11-13 to 17-3-14, Interior (1) 17-3-14 to 21-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 8. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	B5	Piggyback Base	2	1	I50198510 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:36
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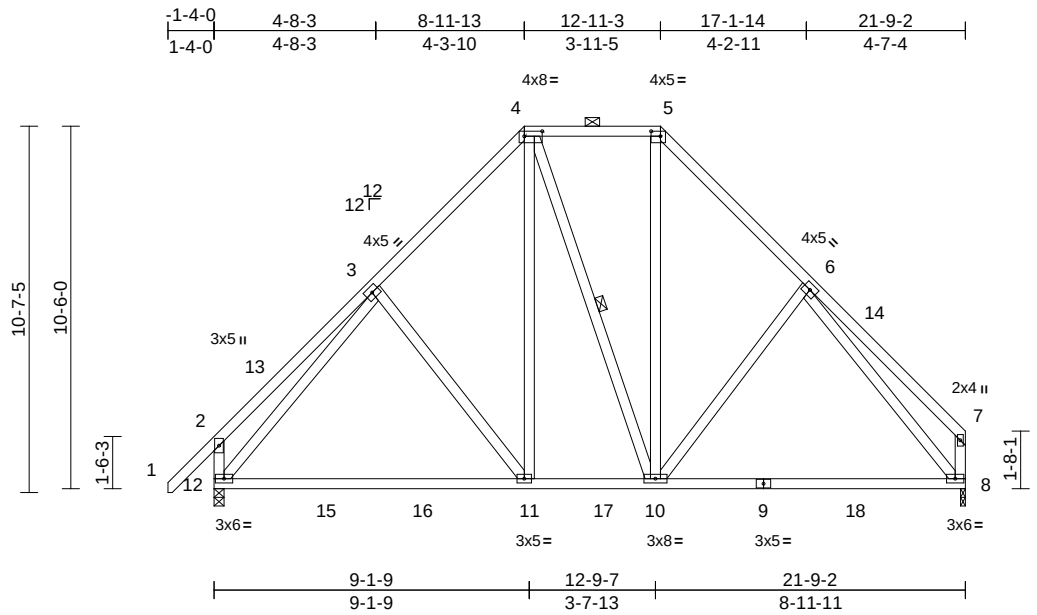
Page: 1



Scale = 1:66.7

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

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	0.47	Vert(LL)	-0.18	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.36	11-12	>707	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 169 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, 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 4-10

REACTIONS (lb/size) 8=745/0-1-10, 12=816/0-3-8
Max Horiz 12=312 (LC 10)
Max Uplift 8=-47 (LC 14), 12=-70 (LC 13)
Max Grav 8=861 (LC 3), 12=947 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/76, 2-3=-387/211, 3-4=-793/376, 4-5=-615/344, 5-6=-794/386, 6-7=-310/161, 2-12=-453/292, 7-8=-312/147
BOT CHORD 11-12=-183/666, 10-11=-86/555, 8-10=-140/523
WEBS 4-11=-123/367, 4-10=-129/126, 5-10=-136/357, 3-12=-693/109, 6-8=-709/189, 6-10=-287/257, 3-11=-294/261

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-3-4 to 1-8-12, Interior (1) 1-8-12 to 8-11-13, Exterior (2) 8-11-13 to 17-2-15, Interior (1) 17-2-15 to 21-7-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 8. 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.
10) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	C1	Roof Special Structural Gable	1	1	I50198511 Job Reference (optional)

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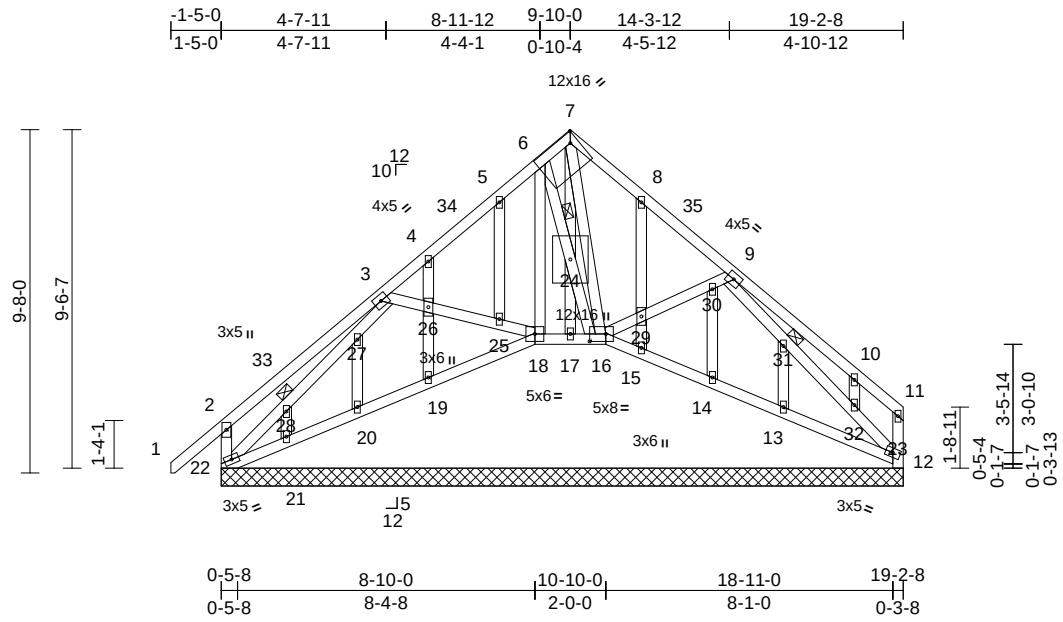

Scale = 1:64.9

Plate Offsets (X, Y): [7:0-2-8,0-3-4], [16:0-5-8,0-2-8]

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 166 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, Except:
6-0-0 oc bracing: 17-18,16-17.
JOINTS 1 Brace at Jt(s): 24, 28, 31

REACTIONS (lb/size) 12=145/19-2-8, 13=124/19-2-8, 14=59/19-2-8, 15=111/19-2-8, 16=164/19-2-8, 17=79/19-2-8, 18=185/19-2-8, 19=143/19-2-8, 20=73/19-2-8, 21=33/19-2-8, 22=237/19-2-8, 23=0/19-2-8
Max Horiz 22=289 (LC 12)
Max Uplift 12=-45 (LC 14), 13=-12 (LC 14), 15=-48 (LC 14), 16=-31 (LC 14), 18=-129 (LC 10), 19=-39 (LC 13), 22=-93 (LC 9)
Max Grav 12=205 (LC 26), 13=148 (LC 26), 14=70 (LC 30), 15=145 (LC 26), 16=203 (LC 2), 17=96 (LC 25), 18=305 (LC 25), 19=181 (LC 25), 20=93 (LC 26), 21=42 (LC 11), 22=308 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-251/221, 3-4=-114/113, 4-5=-99/121, 5-6=-106/160, 6-7=-148/191, 7-8=-136/182, 8-9=-59/105, 9-10=-205/183, 10-11=-138/101, 2-22=-357/289, 12-23=0/0, 11-12=-141/93
BOT CHORD 21-22=-214/249, 20-21=-213/246, 19-20=-212/249, 18-19=-215/249, 17-18=-240/230, 16-17=-240/230, 15-16=-33/86, 14-15=-34/92, 13-14=-37/90, 12-13=-38/97
WEBS 6-18=-73/15, 6-24=-67/70, 16-24=-47/49, 7-16=-90/48, 22-28=-148/69, 27-28=-144/73, 3-27=-190/78, 9-31=-101/6, 31-32=-84/77, 12-32=-108/0, 16-29=-268/193, 29-30=-249/181, 9-30=-256/180, 3-26=-298/231, 25-26=-282/220, 18-25=-316/246, 7-24=-95/46, 17-24=-82/25, 5-25=-107/81, 4-26=-81/55, 19-26=-141/98, 20-27=-58/8, 21-28=-2/9, 8-29=-174/133, 15-29=-132/109, 14-30=-36/10, 13-31=-100/58, 10-32=-139/89

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 9-10-0, Exterior (2) 9-10-0 to 12-10-0, Interior (1) 12-10-0 to 19-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
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) Bearing at joint(s) 12, 23 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 12.
13) N/A

February 13,2022

Continued on page 2

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

14) N/A

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

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	C2	Roof Special	4	1	I50198512 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:37 Page: 1

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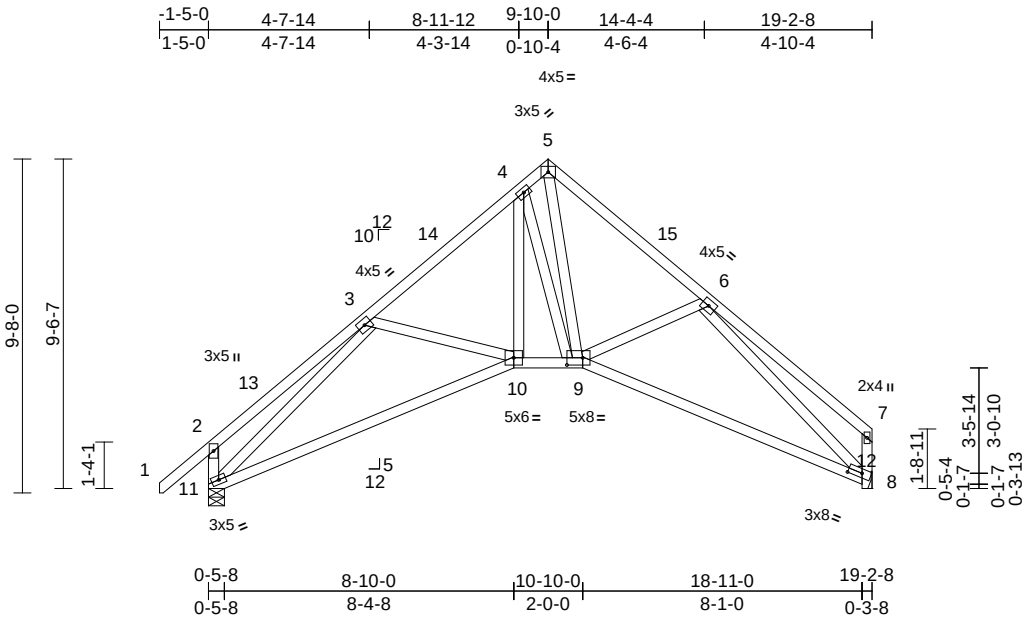


Scale = 1:66.7

Plate Offsets (X, Y): [8:0-4-13,0-1-8], [9:0-5-8,0-2-8]

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	0.39	Vert(LL)	-0.05	10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.25	10-11	>918	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.10	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 129 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 5-5-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-11-5 oc bracing.

REACTIONS (lb/size) 11=715/0-5-8, 12=638/ Mechanical
Max Horiz 11=289 (LC 12)
Max Uplift 11=-78 (LC 13), 12=-52 (LC 14)
Max Grav 11=851 (LC 2), 12=753 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-364/177, 3-4=-1082/309, 4-5=-875/325, 5-6=-1078/334, 6-7=-296/138, 2-11=-428/252, 8-12=-763/179, 7-8=-296/129
BOT CHORD 10-11=-317/1059, 9-10=-74/813, 8-9=-257/891
WEBS 4-10=-109/536, 4-9=-586/249, 5-9=-360/1085, 3-11=-1038/215, 6-8=-1036/297, 3-10=-232/214, 6-9=-233/241

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 9-10-0, Exterior (2) 9-10-0 to 12-10-0, Interior (1) 12-10-0 to 19-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 12.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11. 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

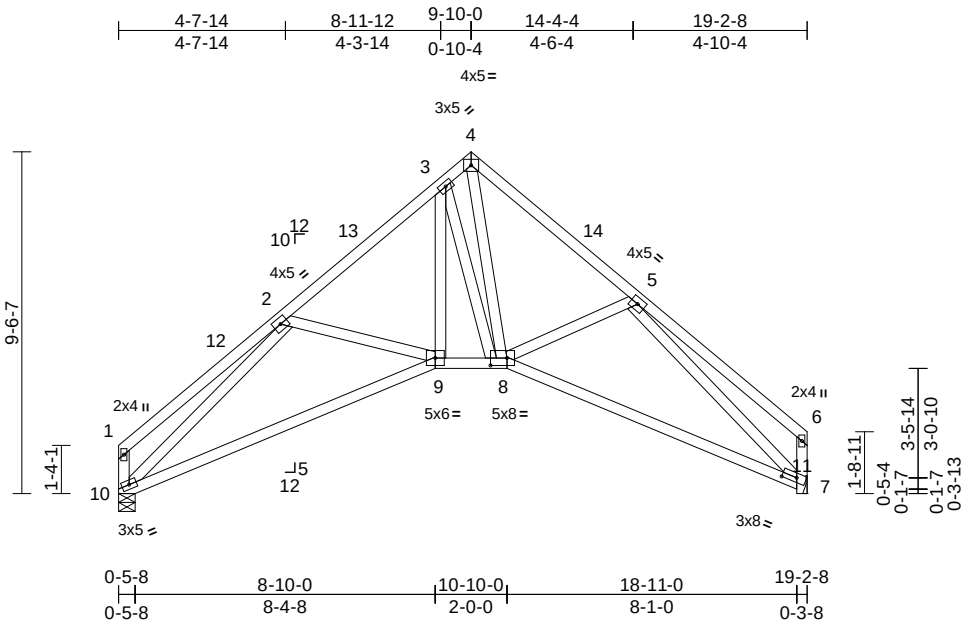
February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	C3	Roof Special	1	1	I50198513 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:38 Page: 1

ID:?y5QXGc5WTYEoCCRmAmQKuztK69-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:64.3

Plate Offsets (X, Y): [7:0-4-13,0-1-8], [8:0-5-8,0-2-8]

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	0.38	Vert(LL)	-0.05	9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.25	9-10	>917	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.11	11	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.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-5-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-10-12 oc bracing.

REACTIONS (lb/size) 10=641/0-5-8, 11=641/ Mechanical
Max Horiz 10=267 (LC 12)
Max Uplift 10=-53 (LC 13), 11=-52 (LC 14)
Max Grav 10=757 (LC 2), 11=757 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-316/132, 2-3=-1089/309, 3-4=-873/324, 4-5=-1082/334, 5-6=-296/138, 1-10=-306/126, 7-11=-765/179, 6-7=-296/129
BOT CHORD 9-10=-320/1080, 8-9=-73/818, 7-8=-257/894
WEBS 3-9=-111/549, 3-8=-582/244, 4-8=-356/1081, 2-10=-1057/263, 5-7=-1043/296, 2-9=-237/236, 5-8=-233/240

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 9-10-0, Exterior (2) 9-10-0 to 12-10-0, Interior (1) 12-10-0 to 19-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 11.
8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	C4	Roof Special	1	1	I50198514 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:38 Page: 1

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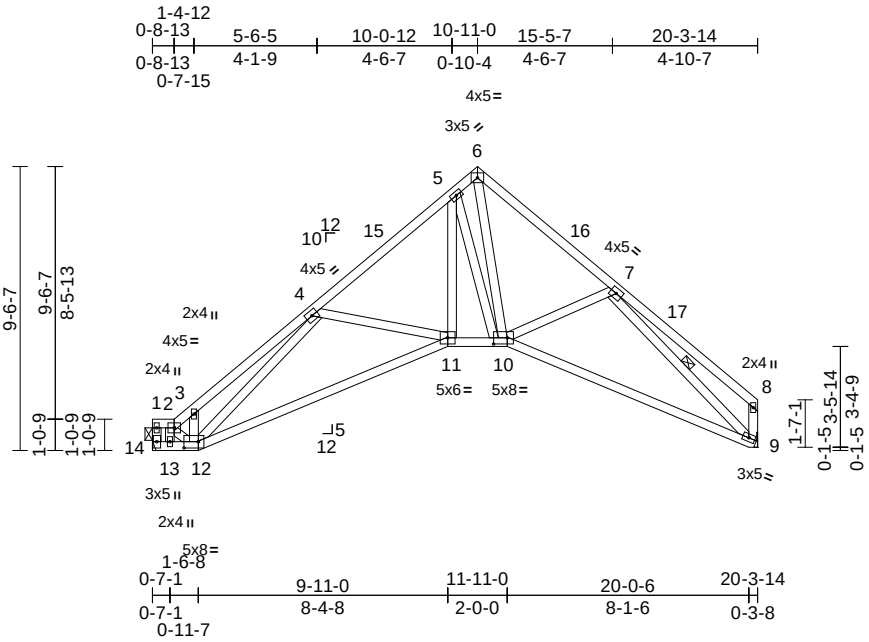


Scale = 1:77.4

Plate Offsets (X, Y): [10:0-5-8,0-2-8], [12:0-5-12,0-2-8]

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	0.37	Vert(LL)	-0.05	11	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.25	11-12	>943	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.11	9	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.3

BRACING

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

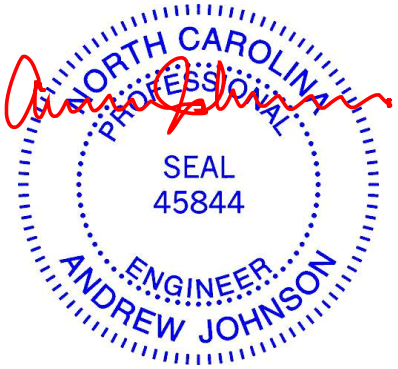
REACTIONS (lb/size) 9=678/ Mechanical, 14=684/ Mechanical
Max Horiz 14=261 (LC 10)
Max Uplift 9=-55 (LC 14), 14=-63 (LC 13)
Max Grav 9=801 (LC 2), 14=801 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-259/81, 1-2=-249/75, 2-3=-1004/179, 3-4=-1207/323, 4-5=-1197/315, 5-6=-950/338, 6-7=-1171/343, 7-8=-297/142, 8-9=-298/132
BOT CHORD 13-14=-220/390, 12-13=-192/520, 11-12=-326/1280, 10-11=-54/897, 9-10=-250/952
WEBS 2-12=-141/680, 5-11=-113/640, 5-10=-687/275, 6-10=-387/1200, 7-9=-1138/282, 2-13=-756/93, 3-12=-400/213, 4-12=-341/98, 4-11=-361/246, 7-10=-216/237

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 0-8-13, Interior (1) 0-8-13 to 10-11-0, Exterior (2) 10-11-0 to 13-11-0, Interior (1) 13-11-0 to 20-2-2 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Provide adequate drainage to prevent water ponding.
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 63 lb uplift at joint 14 and 55 lb uplift at joint 9.
8) 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.
9) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	C5	Roof Special	1	1	I50198515 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:39 Page: 1

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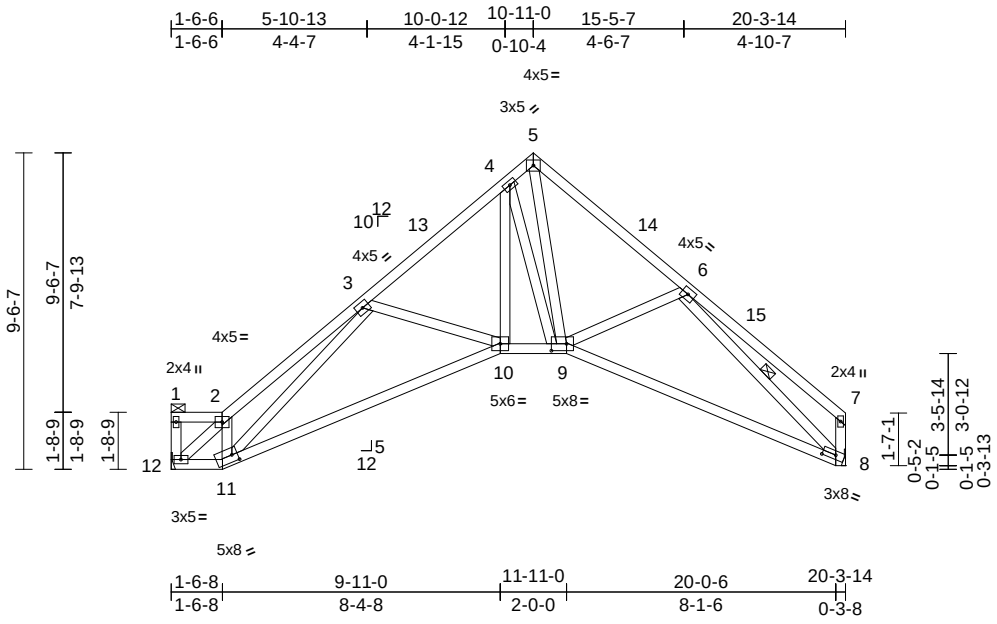

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Plate Offsets (X, Y): [8:0-4-13,0-1-8], [9:0-5-8,0-2-8], [11:0-2-0,0-2-8]

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	0.35	Vert(LL)	-0.05	10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.26	10-11	>932	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.11	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 134 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 5-2-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-8

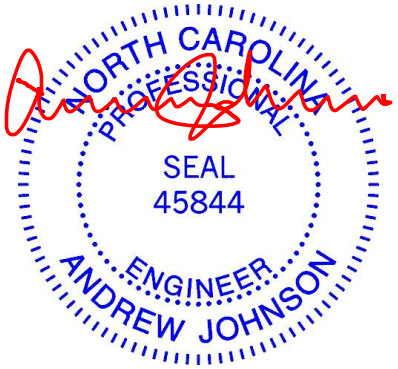
REACTIONS (lb/size) 8=679/ Mechanical, 12=692/ Mechanical
Max Horiz 12=259 (LC 10)
Max Uplift 8=-55 (LC 14), 12=-64 (LC 13)
Max Grav 8=801 (LC 2), 12=801 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-33/22, 1-2=-36/37, 2-3=-1151/326, 3-4=-1199/322, 4-5=-927/327, 5-6=-1169/344, 6-7=-297/142, 7-8=-298/132
BOT CHORD 11-12=-217/892, 10-11=-314/1265, 9-10=-51/890, 8-9=-251/952
WEBS 2-12=-1121/231, 2-11=-76/143, 4-10=-129/658, 4-9=-644/249, 5-9=-362/1158, 6-8=-1138/283, 3-10=-347/236, 3-11=-377/85, 6-9=-217/238

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 1-6-6, Interior (1) 1-6-6 to 10-11-0, Exterior (2) 10-11-0 to 13-11-0, Interior (1) 13-11-0 to 20-2-2 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Provide adequate drainage to prevent water ponding.
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 64 lb uplift at joint 12 and 55 lb uplift at joint 8.
8) 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.
9) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	C6	Roof Special	8	1	I50198516 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:40 Page: 1

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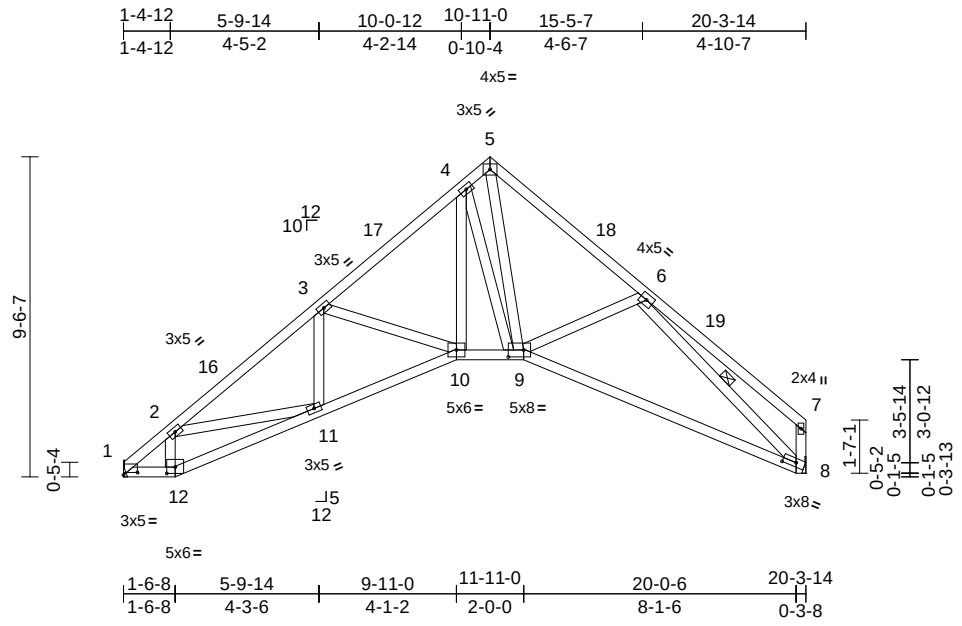

Scale = 1:68.6

Plate Offsets (X, Y): [1:0-5-0,0-0-14], [8:0-4-13,0-1-8], [9:0-5-8,0-2-8], [12:0-3-0,0-2-4]

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	0.34	Vert(LL)	-0.06	10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.21	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.11	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 131 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 4-7-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-8

REACTIONS (lb/size) 1=683/ Mechanical, 8=683/ Mechanical
Max Horiz 1=261 (LC 12)
Max Uplift 1=-63 (LC 13), 8=-55 (LC 14)
Max Grav 1=807 (LC 2), 8=807 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1152/307, 2-3=-1512/370, 3-4=-1202/334, 4-5=-940/327, 5-6=-1186/345, 6-7=-297/143, 7-8=-298/133
BOT CHORD 1-12=-290/985, 11-12=-302/1040, 10-11=-278/1324, 9-10=-57/891, 8-9=-251/962
WEBS 2-12=-390/172, 4-10=-155/633, 4-9=-627/269, 5-9=-362/1177, 6-8=-1152/284, 3-10=-437/218, 3-11=0/79, 2-11=0/276, 6-9=-213/235

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 10-11-0, Exterior (2) 10-11-0 to 13-11-0, Interior (1) 13-11-0 to 20-2-2 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 1 and 55 lb uplift at joint 8.
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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof	
22010064-A	C7	Roof Special Girder	1	2	Job Reference (optional)	I50198517

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:40 Page: 1

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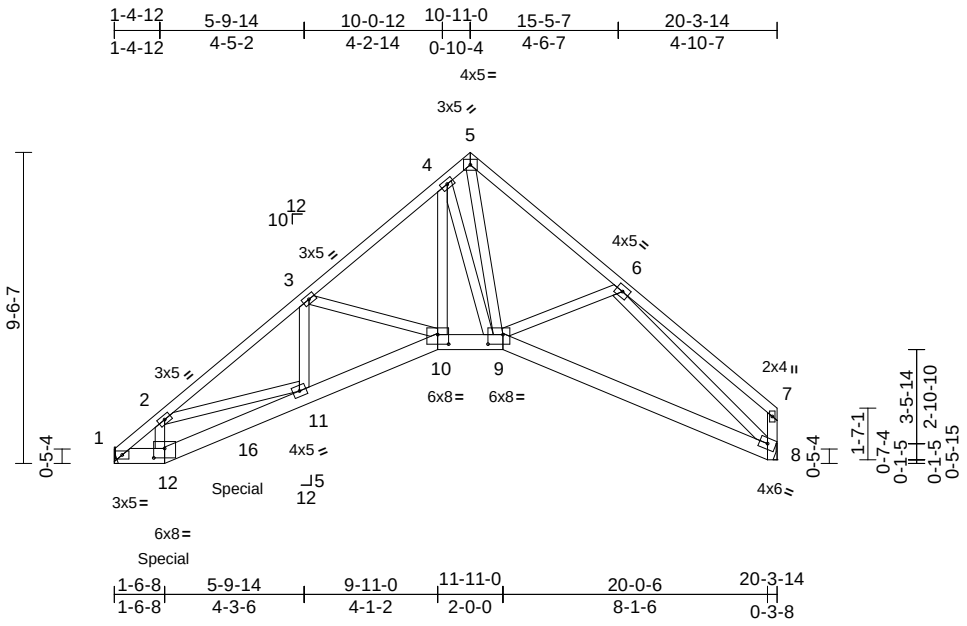


Scale = 1:70.7

Plate Offsets (X, Y): [9:0-5-8,0-3-8], [10:0-4-0,0-3-8], [12:0-4-0,0-3-8]

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	0.20	Vert(LL)	-0.05	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.11	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.08	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 297 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=2457/ Mechanical, 8=954/ Mechanical
Max Horiz 1=259 (LC 6)
Max Uplift 1=-121 (LC 9), 8=-64 (LC 10)
Max Grav 1=3120 (LC 21), 8=1092 (LC 22)

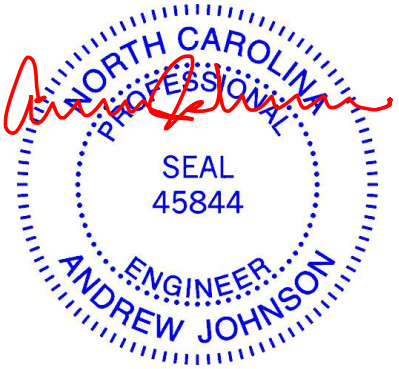
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4936/195, 2-3=-3826/225, 3-4=-2117/161, 4-5=-1375/159, 5-6=-1947/162, 6-7=-290/99, 7-8=-276/97
BOT CHORD 1-12=-282/3944, 11-12=-295/4656, 10-11=-204/3306, 9-10=-69/1610, 8-9=-64/1488
WEBS 2-12=-150/703, 4-10=-115/1546, 4-9=-1285/207, 5-9=-181/1929, 6-8=-1835/88, 3-10=-1525/195, 3-11=-4/1327, 2-11=-1067/160, 6-9=-73/279

NOTES

1) 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.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
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 121 lb uplift at joint 1 and 64 lb uplift at joint 8.
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.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1390 lb down and 33 lb up at 1-6-8, and 1390 lb down and 32 lb up at 3-9-12 on bottom 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: 1-5=-48, 5-7=-48, 12-13=-20, 10-12=-20, 9-10=-20, 8-9=-20
Concentrated Loads (lb)
Vert: 12=-1023 (F), 16=-1022 (F)



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ1	Jack-Open	4	1	I50198518 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:41
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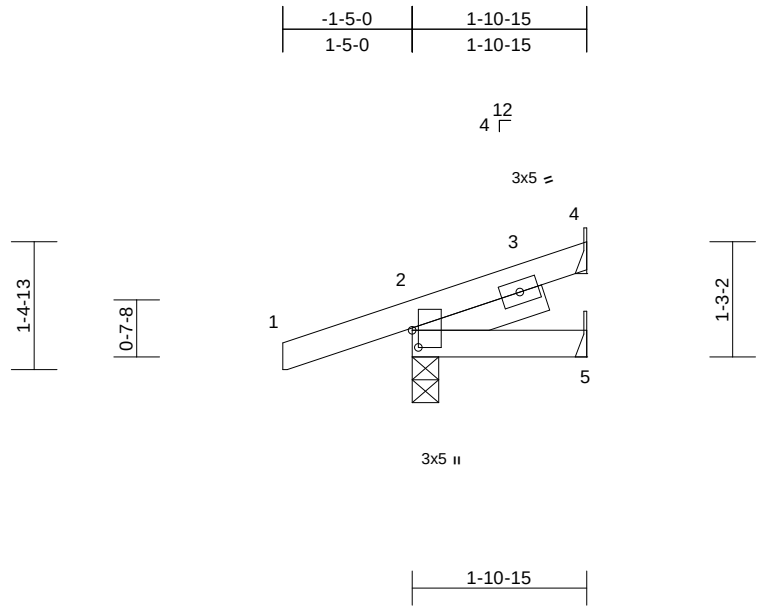

Scale = 1:25.2

Plate Offsets (X, Y): [2:0-2-4,0-0-13]

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)	0.00	8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	8	>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: 10 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0

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 (lb/size) 2=155/0-3-8, 4=26/ Mechanical, 5=14/ Mechanical
Max Horiz 2=47 (LC 11)
Max Uplift 2=-80 (LC 11), 4=-14 (LC 15)
Max Grav 2=190 (LC 2), 4=31 (LC 2), 5=15 (LC 32)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-4=-53/56
BOT CHORD 2-5=-50/35

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 14 lb uplift at joint 4.
8) 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.
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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ2	Jack-Open	4	1	I50198519 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:41 Page: 1
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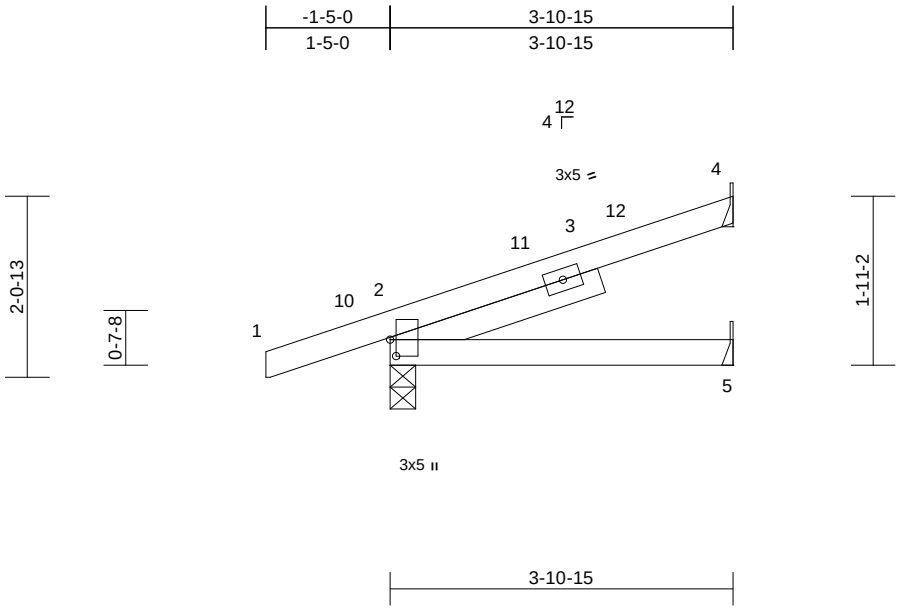


Scale = 1:26.3

Plate Offsets (X, Y): [2:0-2-4,0-0-13]

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	0.19	Vert(LL)	0.01	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	5-8	>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: 18 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 2-6-0

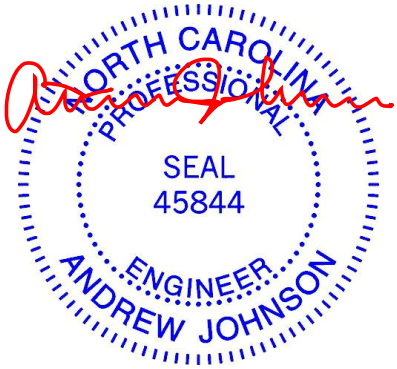
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=209/0-3-8, 4=78/ Mechanical, 5=40/ Mechanical
Max Horiz 2=71 (LC 11)
Max Uplift 2=-78 (LC 11), 4=-39 (LC 15)
Max Grav 2=253 (LC 2), 4=96 (LC 2), 5=43 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-4=-189/84
BOT CHORD 2-5=-124/91

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-11 to 1-7-5, Interior (1) 1-7-5 to 3-10-3 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 39 lb uplift at joint 4.
8) 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.
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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ3	Jack-Open	2	1	I50198520 Job Reference (optional)

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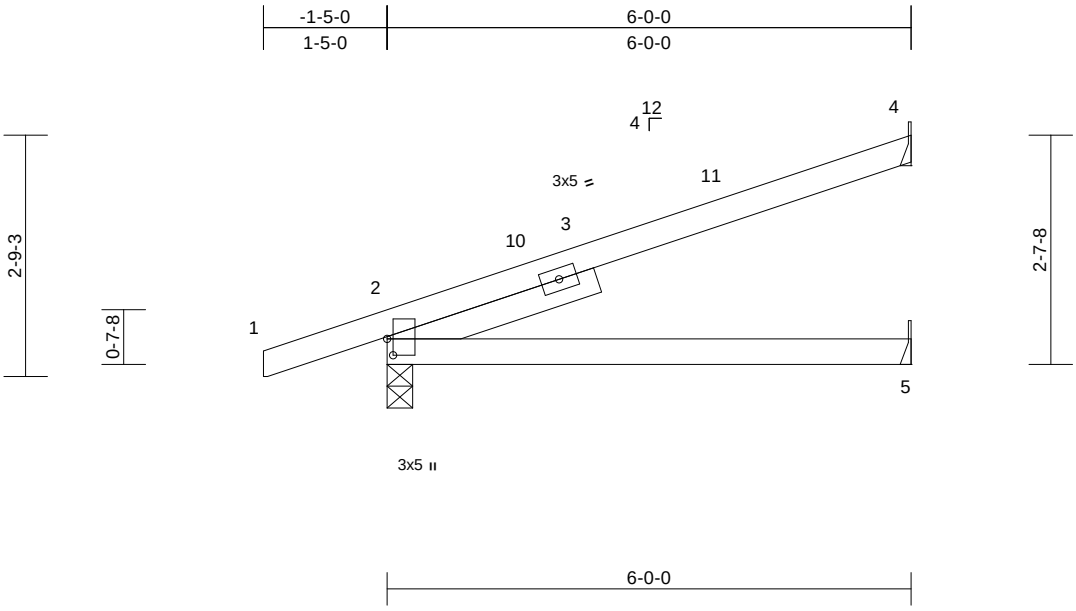


Scale = 1:26.4

Plate Offsets (X, Y): [2:0-2-4,0-0-13]

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	0.52	Vert(LL)	0.08	5-8	>881	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.12	5-8	>616	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 2-6-0

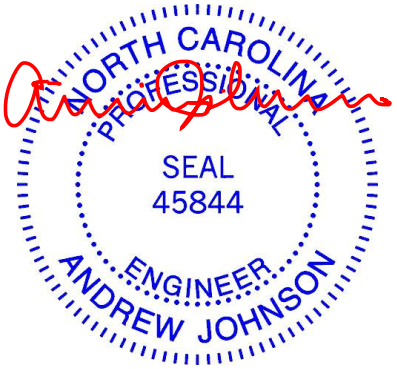
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=275/0-3-8, 4=125/ Mechanical, 5=69/ Mechanical
Max Horiz 2=95 (LC 11)
Max Uplift 2=-83 (LC 11), 4=-62 (LC 15)
Max Grav 2=331 (LC 2), 4=154 (LC 2), 5=74 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-4=-241/40
BOT CHORD 2-5=-279/194

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-11 to 1-7-5, Interior (1) 1-7-5 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 62 lb uplift at joint 4.
8) 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.
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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ4	Jack-Open	1	1	I50198521 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:41

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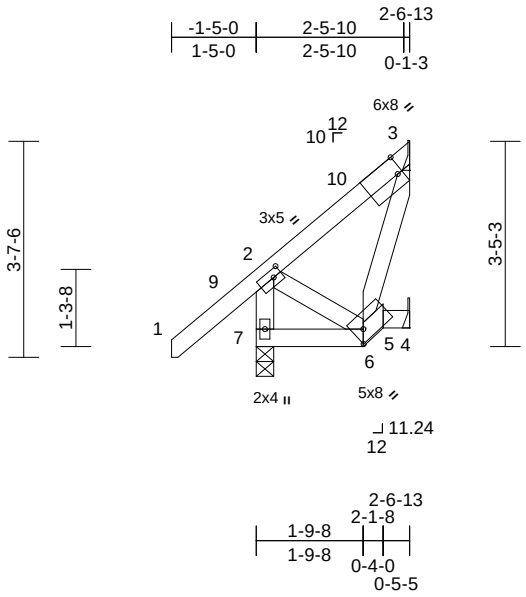


Scale = 1:38.6

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

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	0.23	Vert(LL)	0.00	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

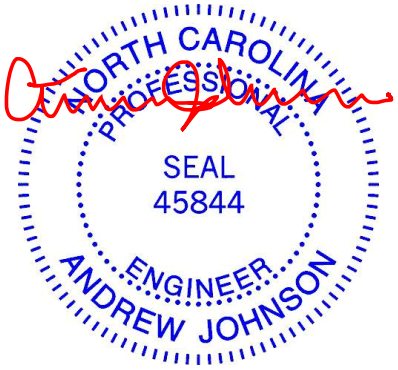
REACTIONS (lb/size) 3=54/ Mechanical, 4=4/ Mechanical, 7=176/0-3-8
Max Horiz 7=98 (LC 13)
Max Uplift 3=-76 (LC 13)
Max Grav 3=95 (LC 25), 4=5 (LC 26), 7=216 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-199/96, 1-2=0/73, 2-3=-65/38, 3-3=0/0
BOT CHORD 6-7=-180/137, 5-6=-9/3, 4-5=0/0
WEBS 2-6=-133/187, 3-6=-95/108

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 2-6-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 3.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ5	Jack-Open	1	1	I50198522 Job Reference (optional)

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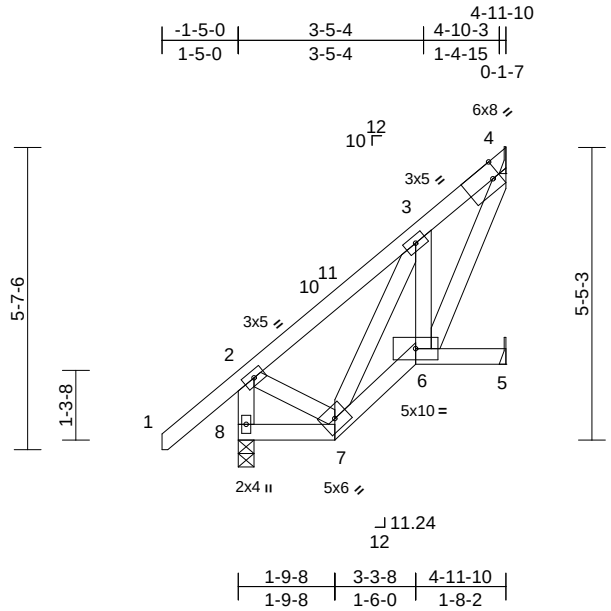

Scale = 1:42.8

Plate Offsets (X, Y): [4:0-1-11,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	0.23	Vert(LL)	0.00	6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 39 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 4-11-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=135/ Mechanical, 5=16/ Mechanical, 8=246/0-3-8
Max Horiz 8=170 (LC 13)
Max Uplift 4=-129 (LC 13)
Max Grav 4=202 (LC 25), 5=16 (LC 1), 8=297 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-281/68, 1-2=0/73, 2-3=-141/39, 3-4=-288/167, 4-4=0/0
BOT CHORD 7-8=-296/251, 6-7=-186/276, 5-6=0/0
WEBS 2-7=-124/224, 3-7=-175/30, 3-6=-249/215, 4-6=-351/508

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 4-11-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 129 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ6	Jack-Open	2	1	I50198523 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:42 Page: 1
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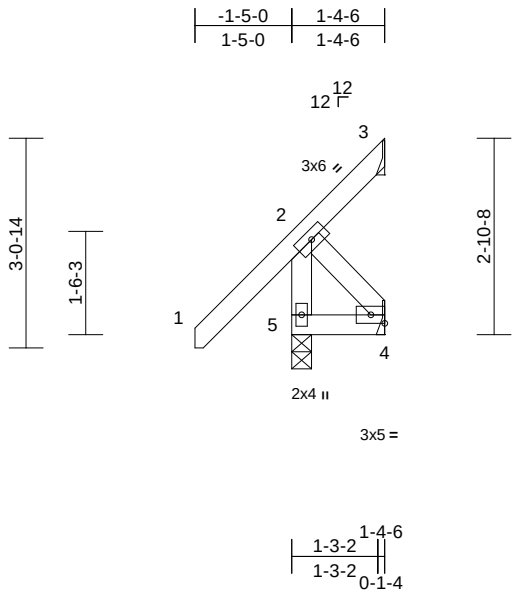

Scale = 1:33.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	3	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
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-4-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=-16/ Mechanical, 4=12/ Mechanical, 5=157/0-3-8
Max Horiz 5=79 (LC 12)
Max Uplift 3=-59 (LC 19), 4=-71 (LC 13), 5=-2 (LC 9)
Max Grav 3=27 (LC 9), 4=52 (LC 11), 5=208 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-196/72, 1-2=0/80, 2-3=-65/81
BOT CHORD 4-5=-158/134
WEBS 2-4=-197/231

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 4 and 59 lb uplift at joint 3.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ7	Jack-Open	1	1	I50198524 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:42 Page: 1

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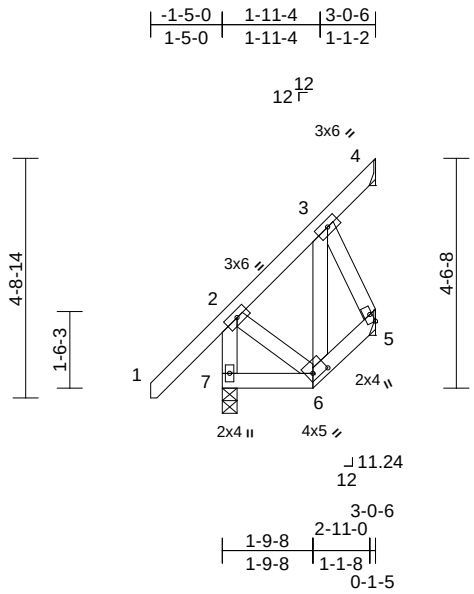

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Plate Offsets (X, Y): [6:0-3-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	0.00	6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	4	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
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-0-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 4=27/ Mechanical, 5=49/ Mechanical, 7=187/0-3-8
Max Horiz 7=132 (LC 13)
Max Uplift 4=-28 (LC 13), 5=-84 (LC 13)
Max Grav 4=39 (LC 25), 5=98 (LC 11), 7=227 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-211/31, 1-2=0/80, 2-3=-88/80, 3-4=-55/38
BOT CHORD 6-7=-257/213, 5-6=-92/108
WEBS 2-6=-188/268, 3-6=-112/85, 3-5=-151/131

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-11-4, Interior (1) 1-11-4 to 2-11-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 4 and 84 lb uplift at joint 5.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ8	Jack-Open	1	1	I50198525 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:44 Page: 1

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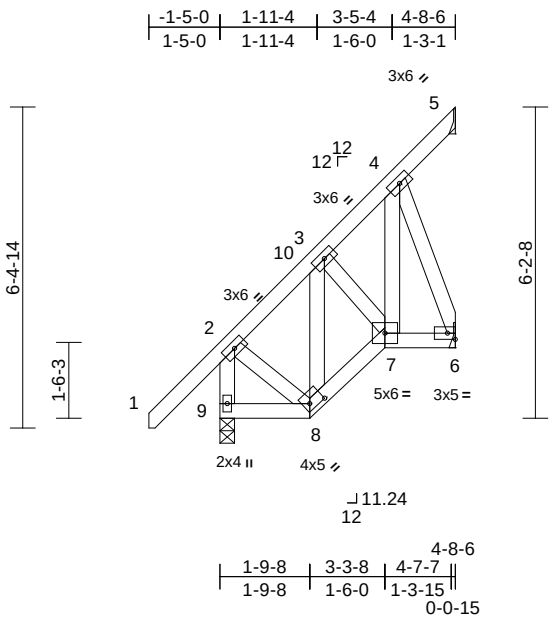

Scale = 1:46

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	0.00	7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=20/ Mechanical, 6=120/ Mechanical, 9=237/0-3-8
Max Horiz 9=192 (LC 13)
Max Uplift 5=-26 (LC 13), 6=-125 (LC 13)
Max Grav 5=32 (LC 25), 6=185 (LC 25), 9=287 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-9=-270/14, 1-2=0/80, 2-3=-134/56, 3-4=-92/0, 4-5=-41/39
BOT CHORD 8-9=-339/287, 7-8=-206/236, 6-7=-94/112
WEBS 2-8=-161/278, 3-8=-156/15, 3-7=-82/72, 4-7=-176/249, 4-6=-307/256

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-11-4, Interior (1) 1-11-4 to 4-7-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 5 and 125 lb uplift at joint 6.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ9	Monopitch	1	1	I50198526 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:44 Page: 1

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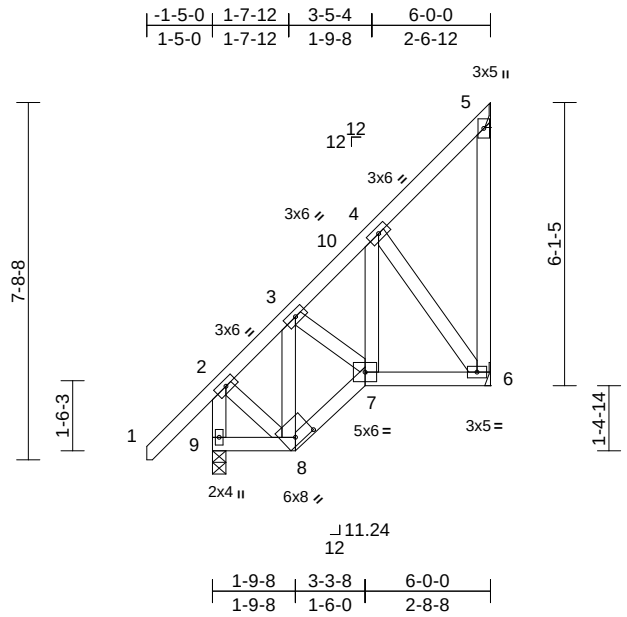

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Plate Offsets (X, Y): [8:0-4-12,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	0.00	7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	0.00	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 55 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 7-9-13 oc bracing.

REACTIONS (lb/size) 5=46/ Mechanical, 6=138/ Mechanical, 9=274/0-3-8
Max Horiz 9=287 (LC 10)
Max Uplift 5=-86 (LC 12), 6=-99 (LC 13), 9=-33 (LC 9)
Max Grav 5=88 (LC 25), 6=214 (LC 25), 9=370 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/80, 2-3=-216/144, 3-4=-229/103, 4-5=-221/219, 5-6=0/0, 2-9=-353/212
BOT CHORD 8-9=-579/548, 7-8=-413/475, 6-7=-304/365
WEBS 3-8=-165/78, 3-7=-37/51, 4-7=-240/327, 4-6=-432/351, 2-8=-256/354

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 5-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 5 and 99 lb uplift at joint 6.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ10	Jack-Open	1	1	I50198527 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:44
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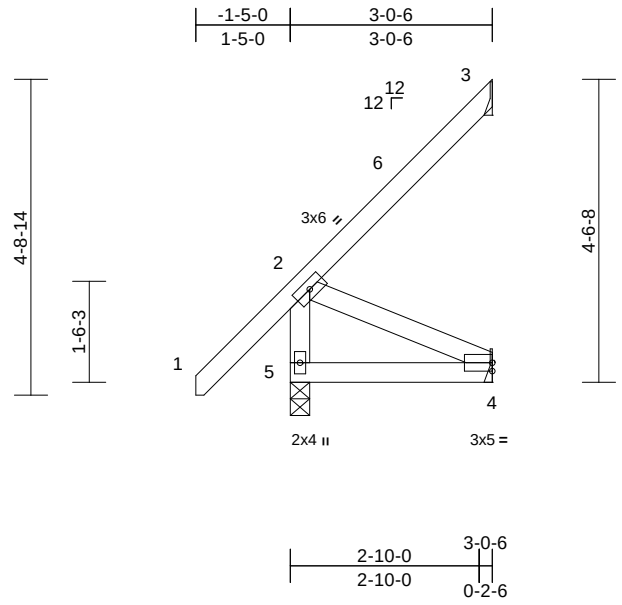

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	3	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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=48/ Mechanical, 4=29/ Mechanical, 5=187/0-3-8
Max Horiz 5=132 (LC 13)
Max Uplift 3=-66 (LC 13), 4=-45 (LC 13)
Max Grav 3=79 (LC 25), 4=64 (LC 11), 5=228 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-199/42, 1-2=0/80, 2-3=-101/120
BOT CHORD 4-5=-269/213
WEBS 2-4=-234/295

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 2-11-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 3 and 45 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ11	Jack-Open	1	1	I50198528 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:45 Page: 1

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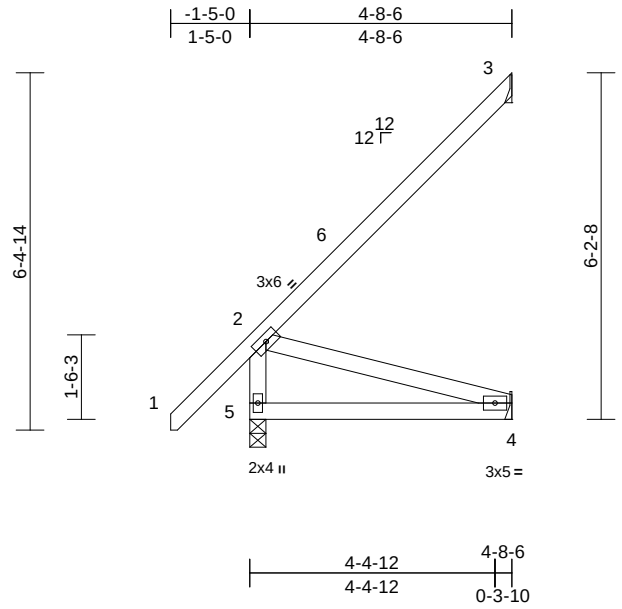


Scale = 1:41.3

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	0.62	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 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 4-8-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-9-15 oc bracing.

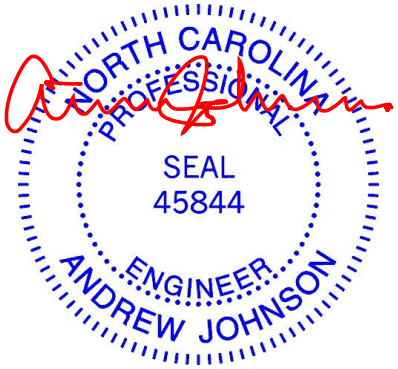
REACTIONS (lb/size) 3=95/ Mechanical, 4=46/ Mechanical, 5=236/0-3-8
Max Horiz 5=192 (LC 13)
Max Uplift 3=-123 (LC 13), 4=-29 (LC 13)
Max Grav 3=150 (LC 25), 4=76 (LC 11), 5=285 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-240/30, 1-2=0/80, 2-3=-187/176
BOT CHORD 4-5=-351/287
WEBS 2-4=-299/365

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 4-7-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 3 and 29 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ12	Monopitch	1	1	I50198529 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:45 Page: 1
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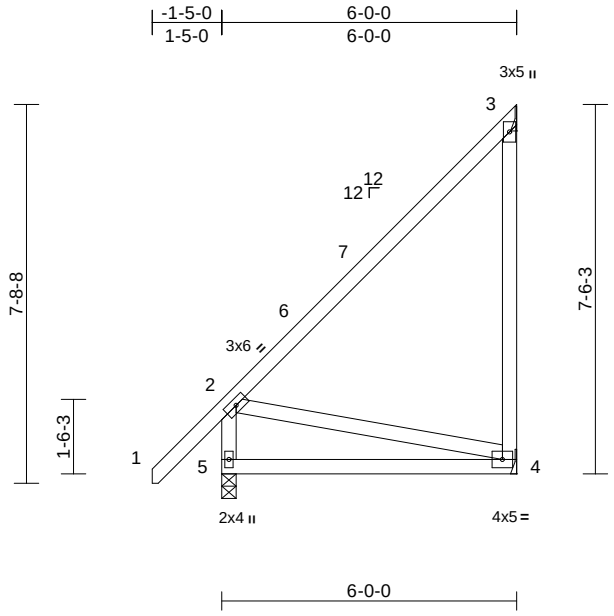


Scale = 1:46.9

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	0.96	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 45 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 3-4:2x4 SP No.2

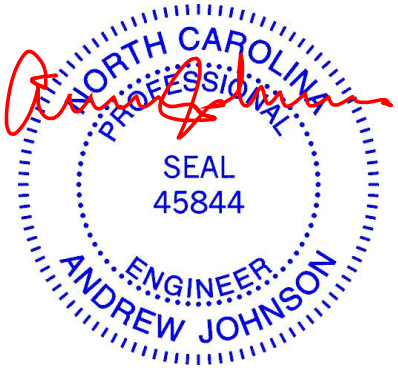
BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-3-8 oc bracing.

REACTIONS (lb/size) 3=127/ Mechanical, 4=57/ Mechanical, 5=274/0-3-8
Max Horiz 5=309 (LC 10)
Max Uplift 3=-159 (LC 10), 4=-21 (LC 10), 5=-37 (LC 9)
Max Grav 3=220 (LC 25), 4=92 (LC 11), 5=374 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/80, 2-3=-398/382, 3-4=0/0, 2-5=-317/245
BOT CHORD 4-5=-626/600
WEBS 2-4=-481/523

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 5-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 3 and 21 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ13	Jack-Open	1	1	I50198530 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:45

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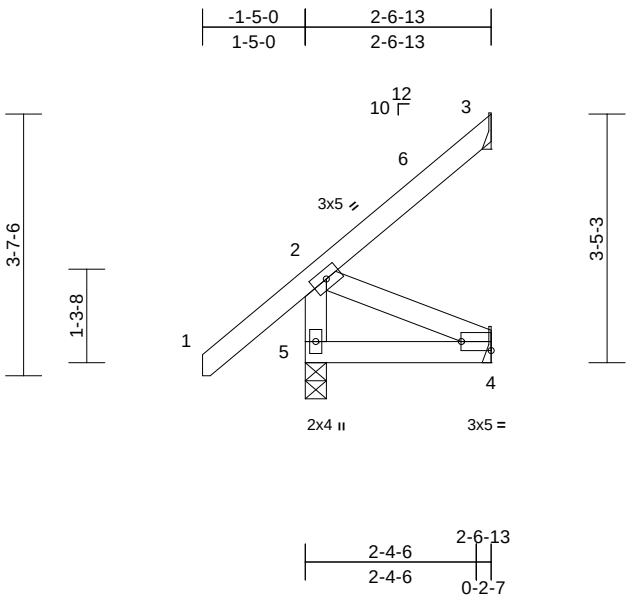

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Plate Offsets (X, Y): [4:0-0-1,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 17 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 2-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=33/ Mechanical, 4=24/ Mechanical, 5=176/0-3-8
Max Horiz 5=96 (LC 13)
Max Uplift 3=-40 (LC 13), 4=-31 (LC 13)
Max Grav 3=54 (LC 25), 4=50 (LC 11), 5=215 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-190/92, 1-2=0/73, 2-3=-64/82
BOT CHORD 4-5=-202/160
WEBS 2-4=-175/221

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 2-6-1 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 3 and 31 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ14	Jack-Open	1	1	I50198531 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:45 Page: 1
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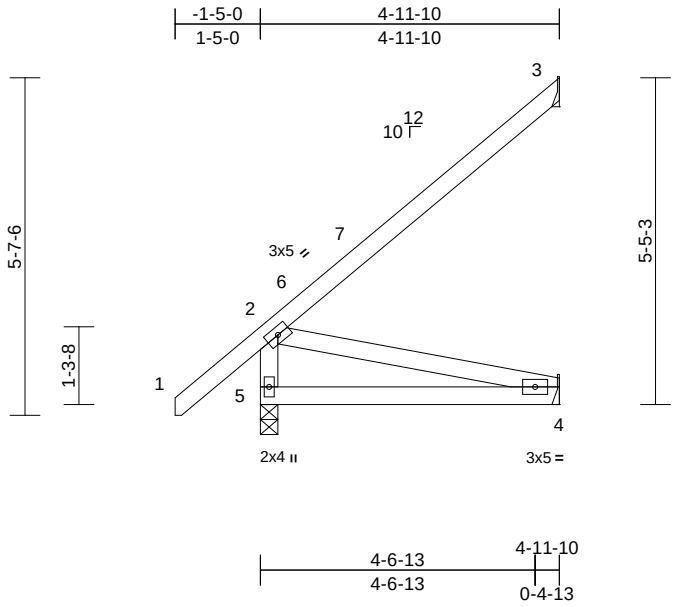

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	3	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
WEBS 2x4 SP No.3

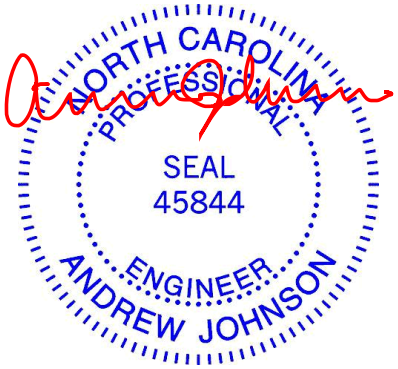
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=102/ Mechanical, 4=48/ Mechanical, 5=245/0-3-8
Max Horiz 5=168 (LC 13)
Max Uplift 3=-107 (LC 13), 4=-10 (LC 13)
Max Grav 3=153 (LC 25), 4=69 (LC 11), 5=296 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-248/88, 1-2=0/73, 2-3=-156/146
BOT CHORD 4-5=-302/249
WEBS 2-4=-255/309

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 4-10-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 107 lb uplift at joint 3 and 10 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ15	Jack-Open	1	1	I50198532 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:46 Page: 1
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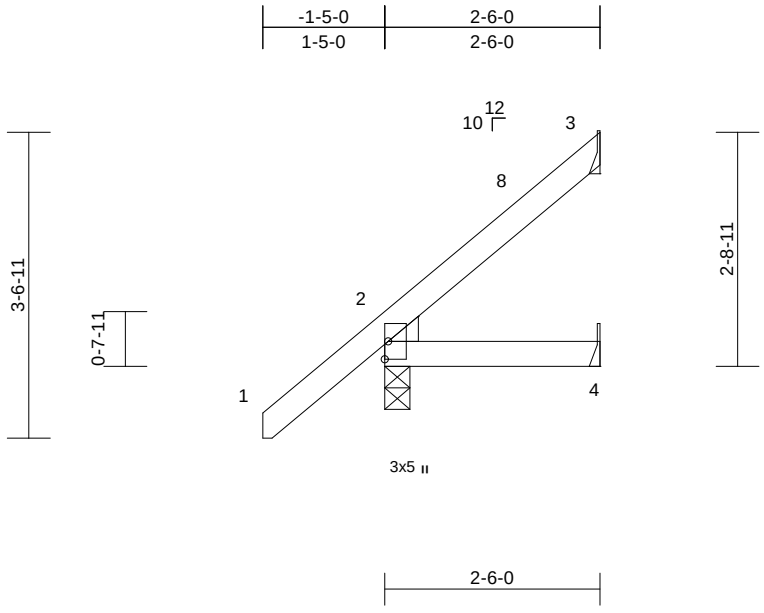

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	4-7	>999	180		
TCDL	10.0	Rep Stress 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: 12 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=166/0-3-8, 3=43/ Mechanical, 4=22/ Mechanical
Max Horiz 2=105 (LC 13)
Max Uplift 2=-7 (LC 13), 3=-45 (LC 13)
Max Grav 2=202 (LC 2), 3=64 (LC 25), 4=28 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/66, 2-3=-145/100
BOT CHORD 2-4=-66/102

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 2-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 3.
7) 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.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ16	Jack-Open	1	1	I50198533 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:46 Page: 1
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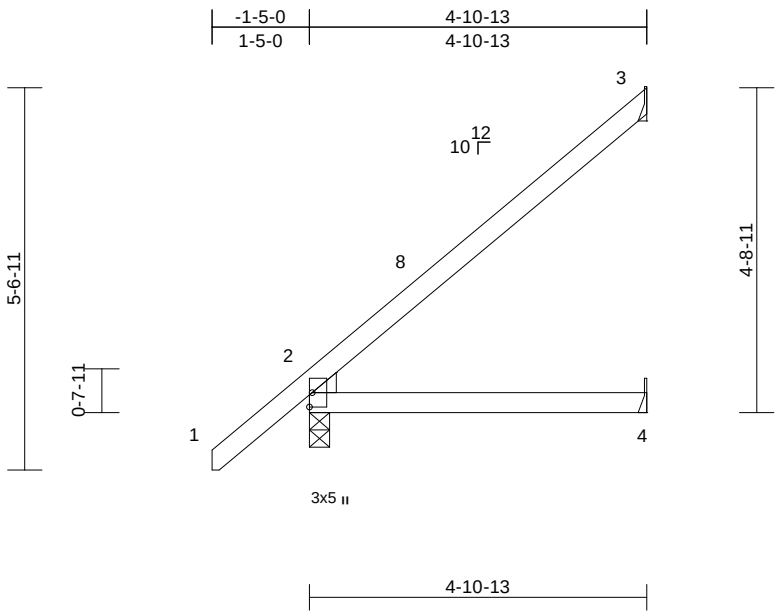

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.05	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.08	4-7	>719	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	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
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-10-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=238/0-3-8, 3=98/ Mechanical, 4=57/ Mechanical
Max Horiz 2=177 (LC 13)
Max Uplift 3=-96 (LC 13)
Max Grav 2=287 (LC 2), 3=144 (LC 25), 4=66 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/66, 2-3=-289/220
BOT CHORD 2-4=-197/221

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 4-10-1 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 3.
7) 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.
8) 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

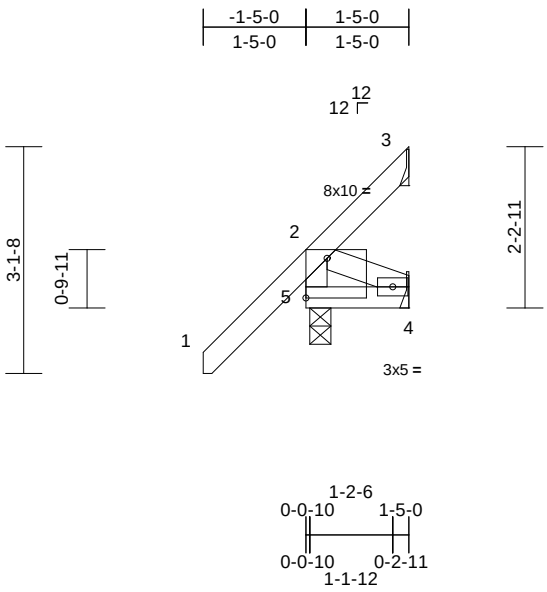
February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ17	Jack-Open	1	1	I50198534 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:46 Page: 1

ID:1IXFcGuiS2peQ??jileDLFztK1v-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.8

Plate Offsets (X, Y): [2:Edge,0-6-9]

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 11 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 1-5-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

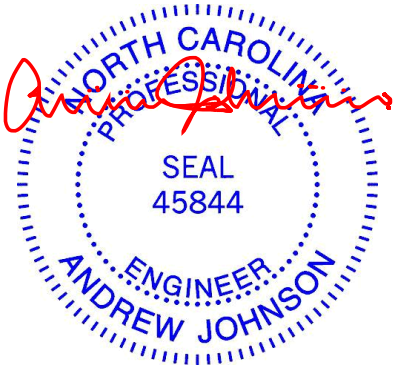
REACTIONS (lb/size) 3=-13/ Mechanical, 4=13/ Mechanical, 5=157/0-3-8
Max Horiz 5=76 (LC 13)
Max Uplift 3=-55 (LC 19), 4=-31 (LC 13), 5=-11 (LC 13)
Max Grav 3=27 (LC 9), 4=29 (LC 11), 5=206 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-193/150, 1-2=0/80, 2-3=-65/81
BOT CHORD 4-5=-179/123
WEBS 2-4=-136/198

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 4 and 55 lb uplift at joint 3.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ18	Jack-Open	1	1	I50198535 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:46 Page: 1
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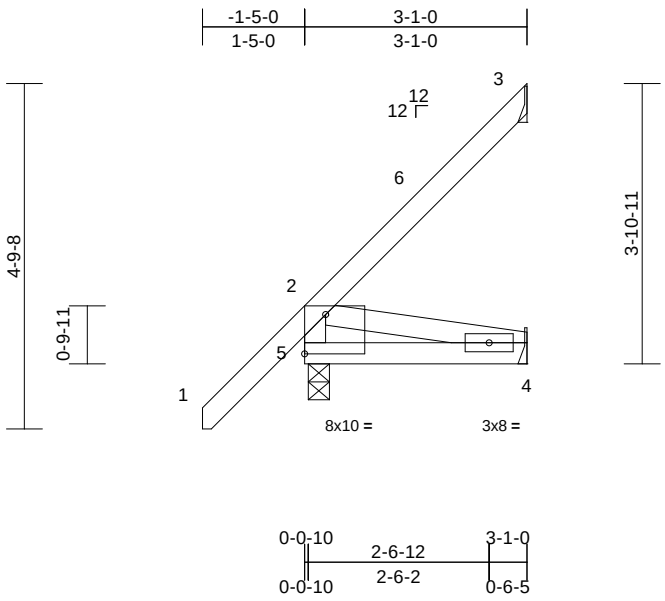


Scale = 1:32

Plate Offsets (X, Y): [5:Edge,0-6-9]

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 19 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 3-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=50/ Mechanical, 4=29/ Mechanical, 5=188/0-3-8
Max Horiz 5=140 (LC 13)
Max Uplift 3=-68 (LC 13), 4=-11 (LC 13)
Max Grav 3=82 (LC 25), 4=43 (LC 11), 5=229 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-200/100, 1-2=0/80, 2-3=-104/122
BOT CHORD 4-5=-266/198
WEBS 2-4=-202/271

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 3-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 3 and 11 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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

February 13,2022

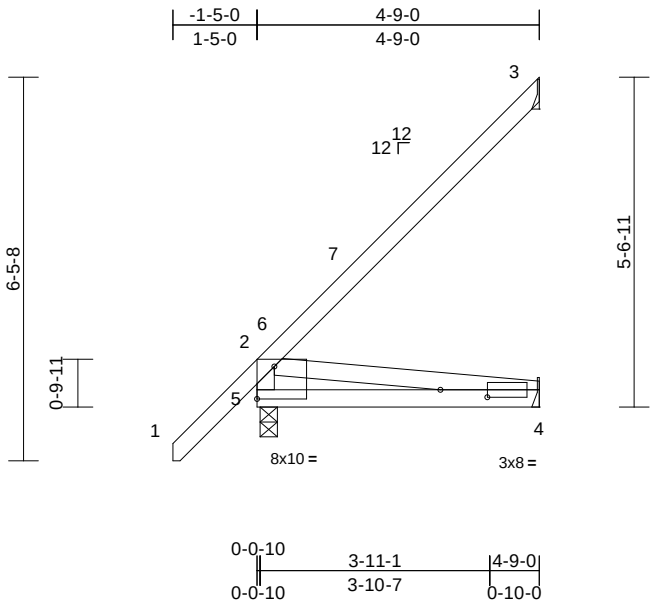
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ19	Jack-Open	1	1	I50198536 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:47

ID:d_NXY33U9Laf693PXFuVwCztK1h-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.8

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

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	0.63	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.01	3	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
WEBS 2x4 SP No.3

BRACING

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

REACTIONS (lb/size) 3=97/ Mechanical, 4=46/ Mechanical, 5=238/0-3-8
Max Horiz 5=200 (LC 13)
Max Uplift 3=-124 (LC 13)
Max Grav 3=153 (LC 25), 4=58 (LC 11), 5=287 (LC 2)

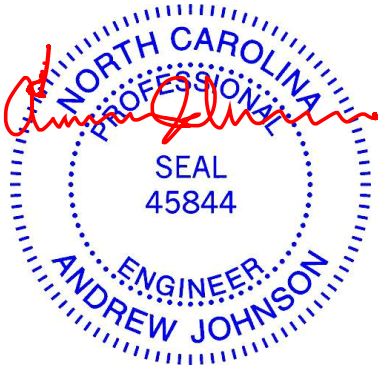
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-241/79, 1-2=0/80, 2-3=-189/178
BOT CHORD 4-5=-347/272
WEBS 2-4=-274/349

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 4-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 3.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ20	Jack-Open	2	1	I50198537 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:47 Page: 1
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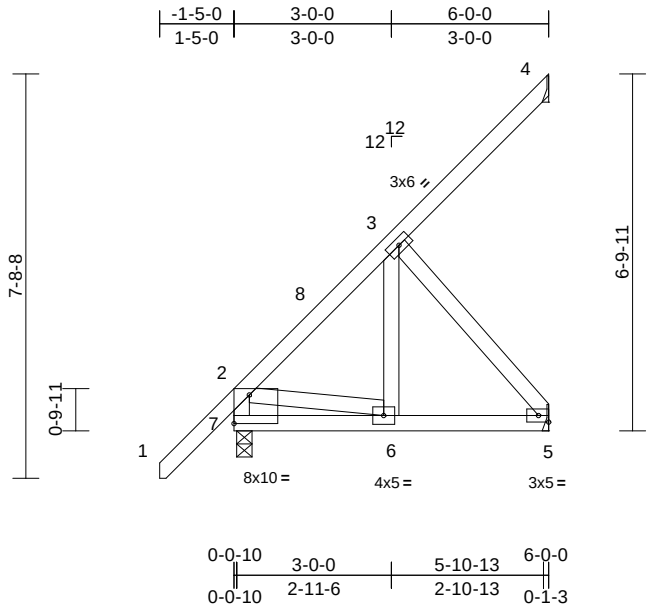

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Plate Offsets (X, Y): [7:Edge,0-6-9]

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	0.28	Vert(LL)	0.00	6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 41 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 9-4-3 oc bracing.

REACTIONS (lb/size) 4=58/ Mechanical, 5=129/ Mechanical, 7=278/0-3-8
Max Horiz 7=245 (LC 13)
Max Uplift 4=-71 (LC 13), 5=-83 (LC 13)
Max Grav 4=89 (LC 25), 5=180 (LC 25), 7=335 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-313/46, 1-2=0/80, 2-3=-217/20, 3-4=-109/88
BOT CHORD 6-7=-403/325, 5-6=-148/225
WEBS 2-6=-127/297, 3-6=-17/97, 3-5=-343/226

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 4 and 83 lb uplift at joint 5.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ21	Jack-Open	1	1	I50198538 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:48 Page: 1
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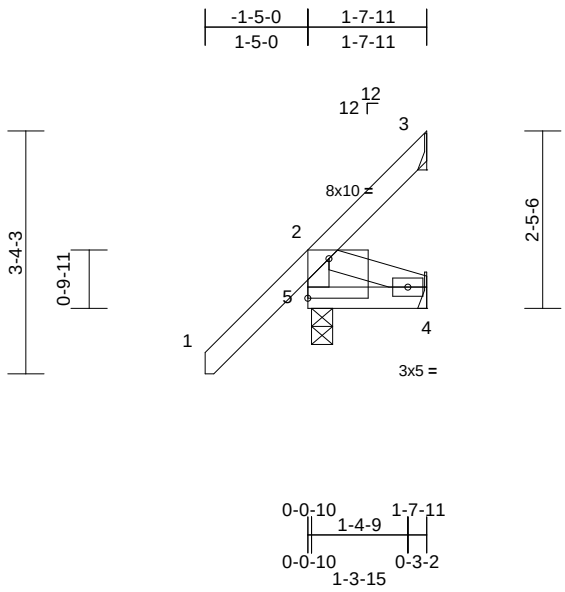


Scale = 1:31.8

Plate Offsets (X, Y): [2:Edge,0-6-9]

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	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
WEBS 2x4 SP No.3

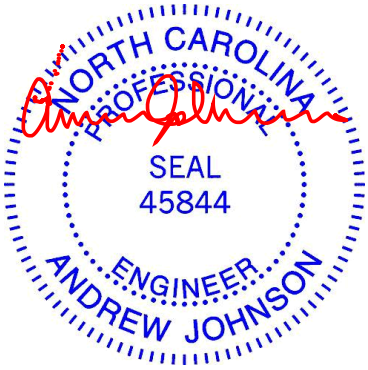
BRACING
TOP CHORD Structural wood sheathing directly applied or 1-7-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=-1/ Mechanical, 4=15/ Mechanical, 5=158/0-3-8
Max Horiz 5=84 (LC 13)
Max Uplift 3=-43 (LC 19), 4=-27 (LC 13), 5=-5 (LC 13)
Max Grav 3=26 (LC 9), 4=31 (LC 11), 5=200 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-186/136, 1-2=0/80, 2-3=-64/84
BOT CHORD 4-5=-192/133
WEBS 2-4=-143/207

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 43 lb uplift at joint 3.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ22	Jack-Open	1	1	I50198539 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:48 Page: 1
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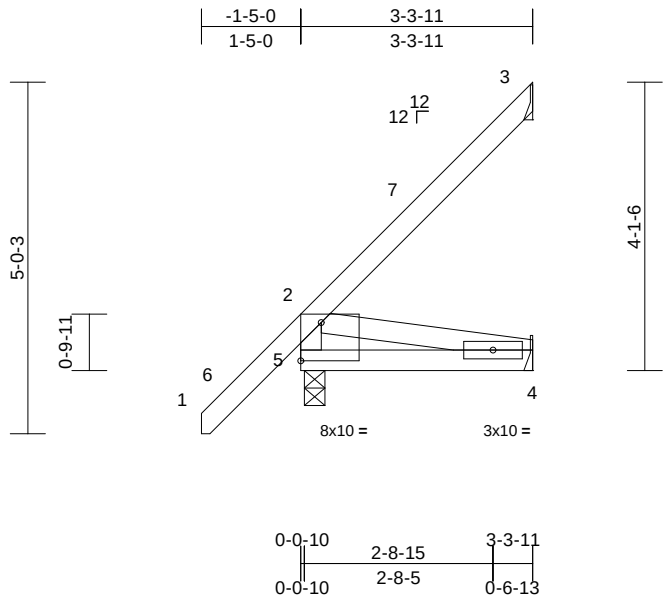


Scale = 1:32.9

Plate Offsets (X, Y): [5:Edge,0-6-9]

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	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	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

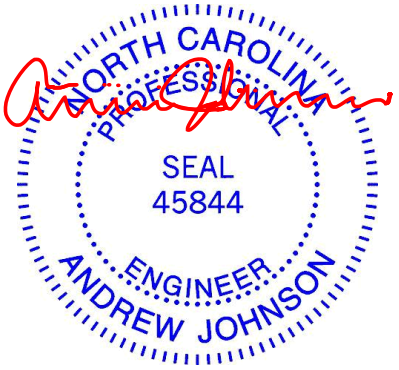
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=57/ Mechanical, 4=32/ Mechanical, 5=195/0-3-8
Max Horiz 5=148 (LC 13)
Max Uplift 3=-76 (LC 13), 4=-10 (LC 13)
Max Grav 3=92 (LC 25), 4=45 (LC 11), 5=237 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-205/97, 1-2=0/80, 2-3=-117/129
BOT CHORD 4-5=-276/208
WEBS 2-4=-212/281

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 3-2-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 3 and 10 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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

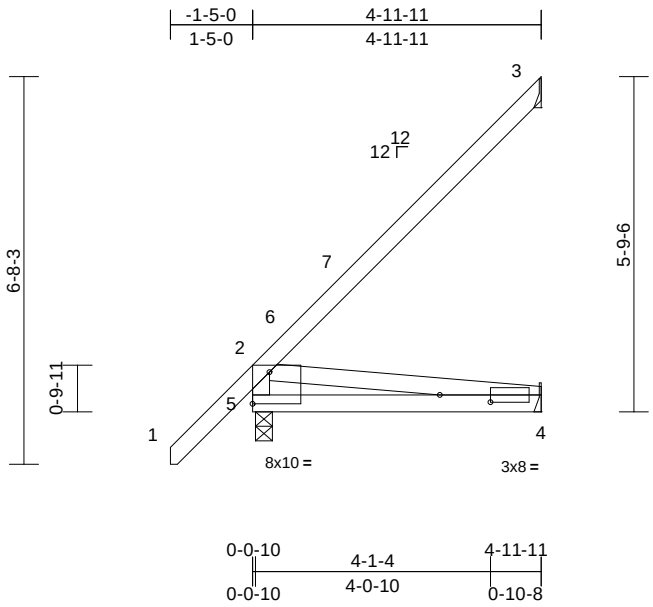


February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ23	Jack-Open	1	1	I50198540 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:48 Page: 1
ID:LjZbMwolo5G?wXD7bZUou3ztK0k-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:39.7

Plate Offsets (X, Y): [4:0-10-8,0-1-8], [5:Edge,0-6-9]

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	0.69	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 lb	FT = 20%

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

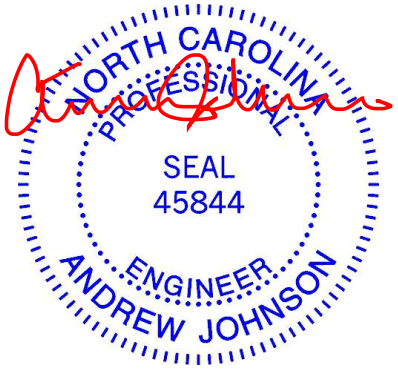
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-8-11 oc bracing.

REACTIONS (lb/size) 3=102/ Mechanical, 4=48/ Mechanical, 5=245/0-3-8
Max Horiz 5=208 (LC 13)
Max Uplift 3=-131 (LC 13)
Max Grav 3=162 (LC 25), 4=61 (LC 11), 5=296 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-247/77, 1-2=0/80, 2-3=-200/186
BOT CHORD 4-5=-357/282
WEBS 2-4=-284/360

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 4-10-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 3.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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

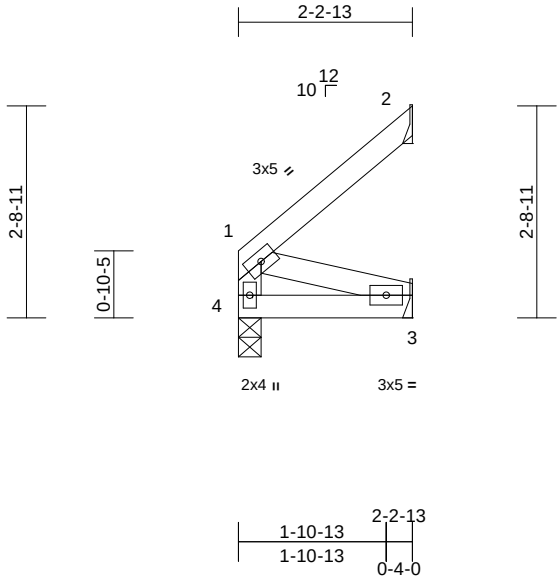


February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ24	Jack-Open	1	1	I50198541 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:49 Page: 1
ID:DUo6BHrGsJmQP8XuqOZk2vztK0g-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:29.6

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	3-4	>999	180		
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: 12 lb	FT = 20%

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

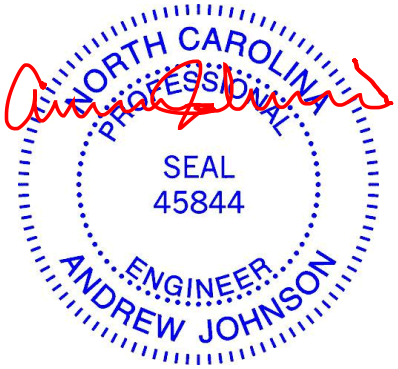
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=48/ Mechanical, 3=21/ Mechanical, 4=69/0-3-8
Max Horiz 4=57 (LC 10)
Max Uplift 2=-49 (LC 13), 3=-5 (LC 13)
Max Grav 2=71 (LC 24), 3=32 (LC 11), 4=82 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-69/59, 1-4=-61/0
BOT CHORD 3-4=-113/91
WEBS 1-3=-95/118

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 2 and 5 lb uplift at joint 3.
6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. 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

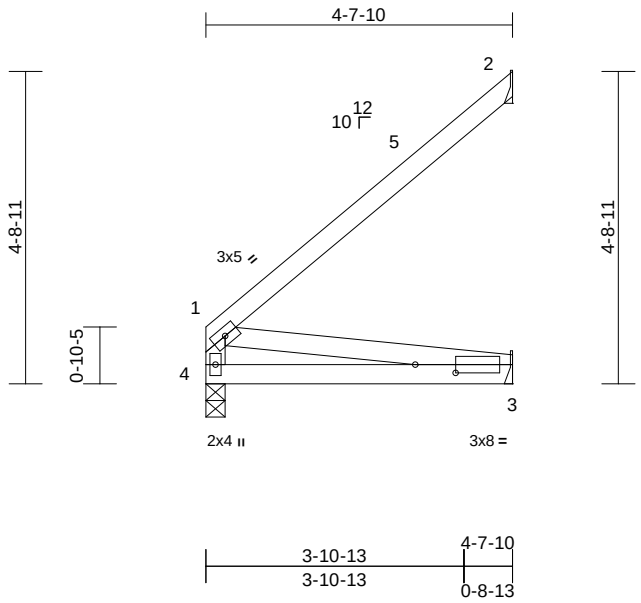


February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	CJ25	Jack-Open	1	1	I50198542 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:49 Page: 1
ID:e3UFqJu88E8?GcGTWX6RgYztK0d-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:34.8

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

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	0.46	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 23 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 5-8-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=106/ Mechanical, 3=45/ Mechanical, 4=151/0-3-8
Max Horiz 4=126 (LC 13)
Max Uplift 2=-108 (LC 13)
Max Grav 2=156 (LC 24), 3=55 (LC 11), 4=178 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-150/129, 1-4=-133/0
BOT CHORD 3-4=-227/180
WEBS 1-3=-182/229

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 1-2-2 to 4-2-2, Interior (1) 4-2-2 to 5-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 2.
6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof	I50198543
22010064-A	D1	Hip Girder	1	1	Job Reference (optional)	

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:50 Page: 1
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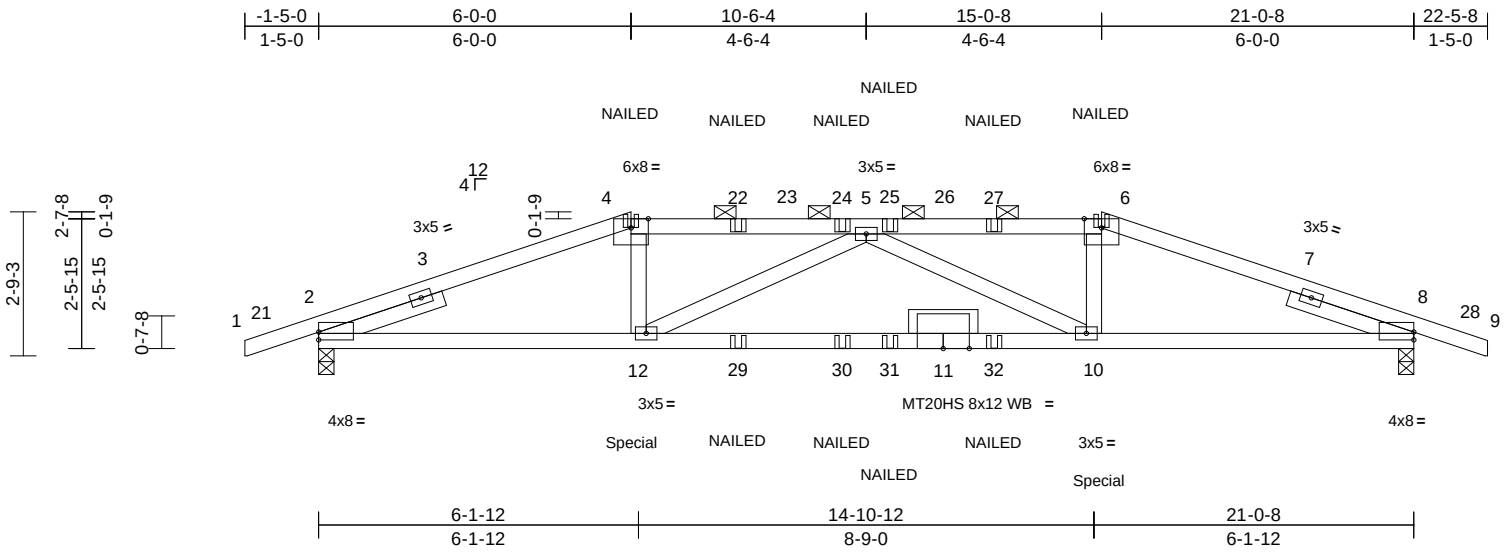


Scale = 1:44.3

Plate Offsets (X, Y): [2:Edge,0-1-13], [8:Edge,0-1-13]

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	0.98	Vert(LL)	-0.29	10-12	>858	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.74	10-12	>341	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.45	Horz(CT)	0.10	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 98 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 4-6:2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3
OTHERS 2x6 SP No.2
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except 2-0-0 oc purlins (2-1-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 9-8-14 oc bracing.

REACTIONS (lb/size) 2=1537/0-3-8, 8=1537/0-3-8
Max Horiz 2=33 (LC 7)
Max Uplift 2=-295 (LC 7), 8=-295 (LC 8)
Max Grav 2=1690 (LC 2), 8=1690 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-4=-3895/526, 4-5=-3715/518, 5-6=-3715/518, 6-8=-3895/526, 8-9=0/34
BOT CHORD 2-12=-457/3647, 10-12=-695/4452, 8-10=-428/3647
WEBS 4-12=-21/994, 6-10=-21/994, 5-12=-910/298, 5-10=-910/298

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
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) 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.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 376 lb down and 47 lb up at 6-0-0, and 376 lb down and 47 lb up at 14-11-12 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
14) 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=-48, 4-6=-58, 6-9=-48, 13-17=-20
Concentrated Loads (lb)
Vert: 4=-86 (B), 6=-86 (B), 12=-366 (B), 10=-366 (B), 22=-81 (B), 24=-81 (B), 25=-81 (B), 27=-81 (B), 29=-50 (B), 30=-50 (B), 31=-50 (B), 32=-50 (B)

February 13,2022

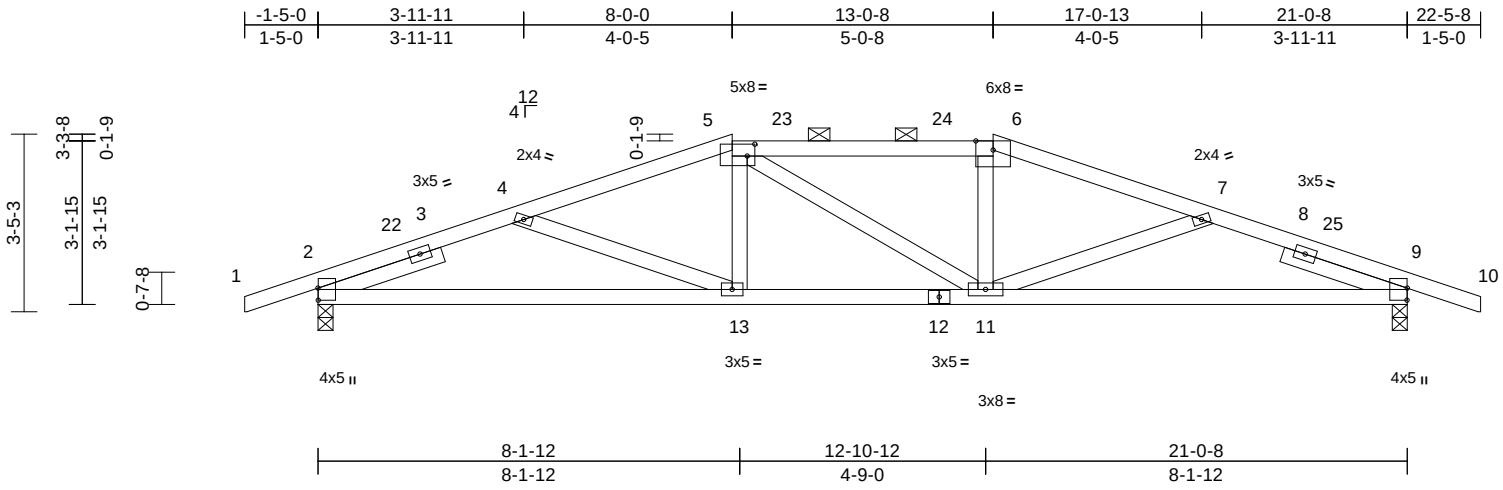
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	D2	Hip	1	1	I50198544 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:50

ID:ecX5yxIT8hQALqs?VgjP2jztK05-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:44.5

Plate Offsets (X, Y): [2:0-2-13,0-0-1], [5:0-1-12,0-2-12], [9:0-2-13,0-0-1]

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	0.55	Vert(LL)	-0.08	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.15	13-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 105 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-2-4 oc purlins, except 2-0-0 oc purlins (4-3-6 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 8-3-8 oc bracing.

REACTIONS (lb/size) 2=804/0-3-8, 9=804/0-3-8
Max Horiz 2=-40 (LC 16)
Max Uplift 2=-167 (LC 11), 9=-167 (LC 12)
Max Grav 2=1011 (LC 38), 9=1011 (LC 38)

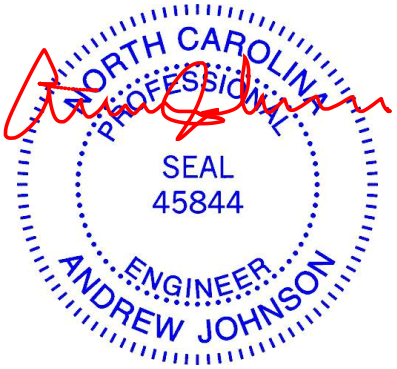
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/34, 2-4=-1777/593, 4-5=-1539/503, 5-6=-1451/510, 6-7=-1540/502, 7-9=-1777/592, 9-10=0/34
BOT CHORD 2-13=-483/1661, 11-13=-356/1450, 9-11=-496/1661
WEBS 5-13=0/206, 5-11=-120/121, 6-11=0/206, 4-13=-276/134, 7-11=-275/134

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-11 to 1-7-5, Interior (1) 1-7-5 to 8-0-0, Exterior (2) 8-0-0 to 12-2-15, Interior (1) 12-2-15 to 13-0-8, Exterior (2) 13-0-8 to 17-3-9, Interior (1) 17-3-9 to 22-5-3 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 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 9. 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.
10) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	D3	Hip	1	1	I50198545 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:51 Page: 1
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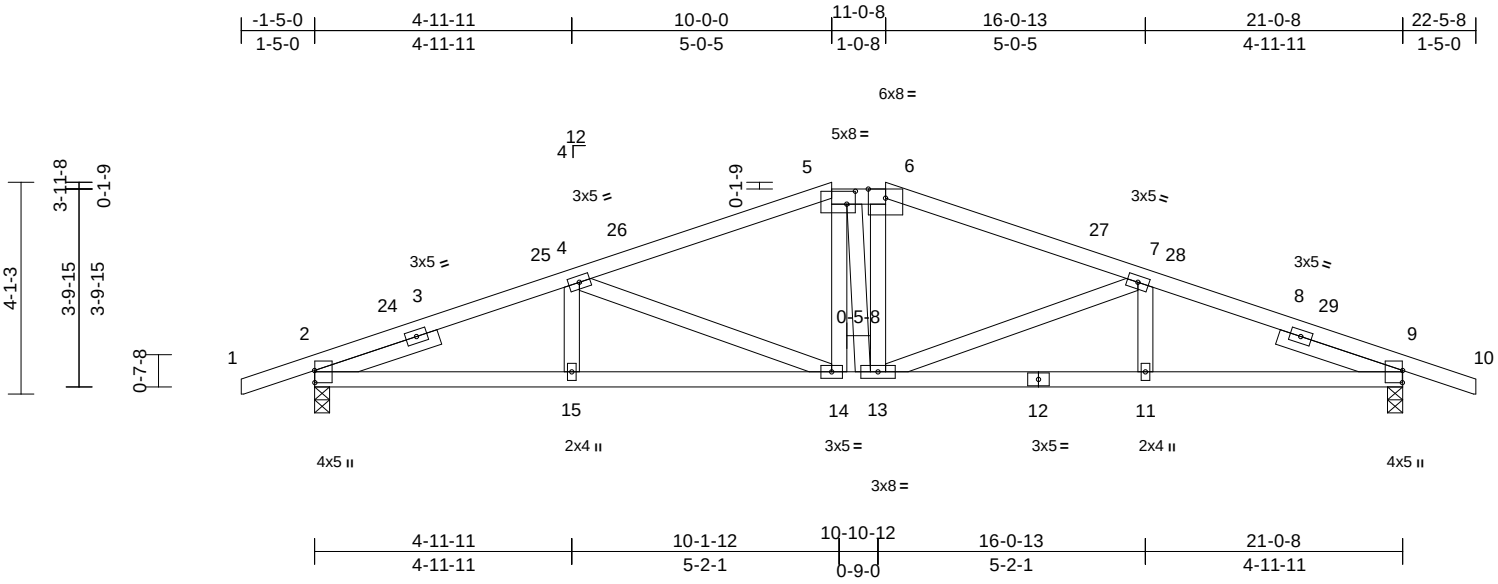

Scale = 1:44.6

Plate Offsets (X, Y): [2:0-2-13,0-0-1], [5:0-2-0,0-3-0], [9:0-2-13,0-0-1]

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	0.51	Vert(LL)	-0.10	14-15	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.19	14-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 111 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-11 oc purlins, except 2-0-0 oc purlins (4-7-5 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 9-3-9 oc bracing.

REACTIONS (lb/size) 2=784/0-3-8, 9=784/0-3-8
Max Horiz 2=-49 (LC 16)
Max Uplift 2=-158 (LC 11), 9=-158 (LC 12)
Max Grav 2=1110 (LC 38), 9=1110 (LC 38)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-4=-2032/487, 4-5=-1569/410, 5-6=-1452/425, 6-7=-1573/410, 7-9=-2031/486, 9-10=0/34
BOT CHORD 2-15=-384/1895, 14-15=-384/1895, 13-14=-245/1447, 11-13=-399/1893, 9-11=-399/1893
WEBS 5-14=-21/237, 5-13=-120/144, 6-13=-51/251, 4-14=-490/151, 7-13=-484/151, 7-11=0/86, 4-15=0/87

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-11 to 1-7-5, Interior (1) 1-7-5 to 10-0-0, Exterior (2) 10-0-0 to 15-3-7, Interior (1) 15-3-7 to 22-5-3 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 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 9. 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.
10) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	D4	Common	1	1	I50198546 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:52 Page: 1
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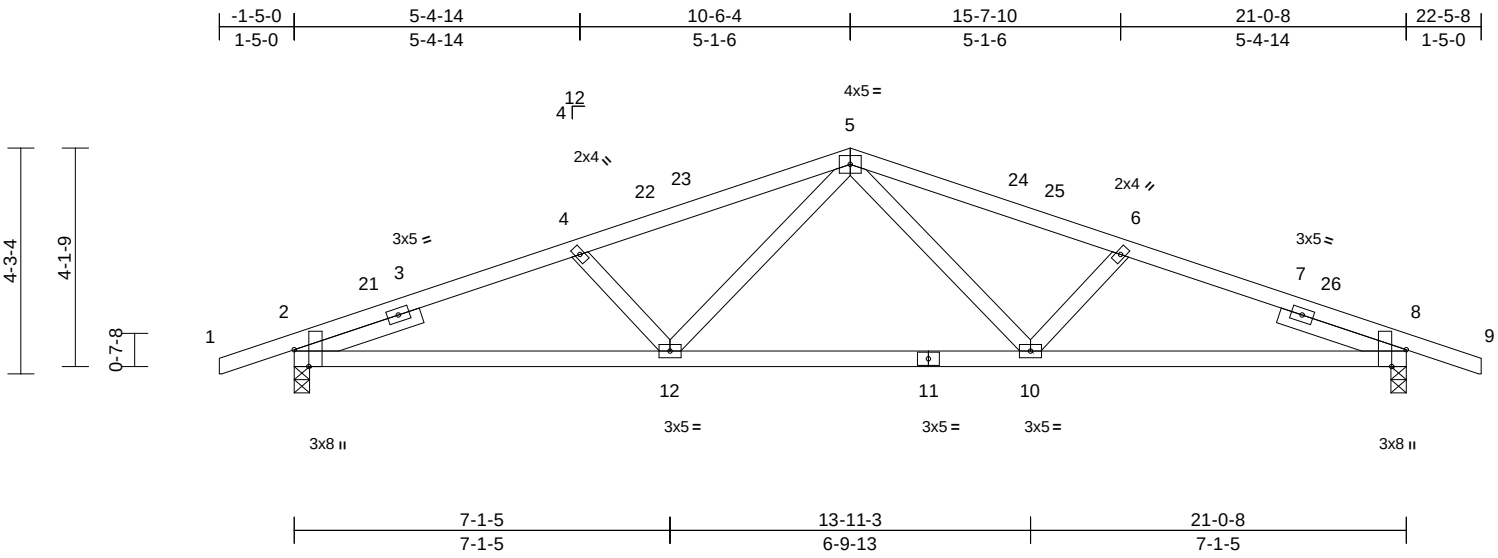

Scale = 1:43.6

Plate Offsets (X, Y): [2:0-3-13,Edge], [8:0-3-13,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	0.42	Vert(LL)	-0.09	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.20	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 99 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-7-14 oc bracing.

REACTIONS (lb/size) 2=779/0-3-8, 8=779/0-3-8
Max Horiz 2=52 (LC 15)
Max Uplift 2=-156 (LC 11), 8=-156 (LC 12)
Max Grav 2=925 (LC 2), 8=925 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-4=-1709/460, 4-5=-1554/414, 5-6=-1554/414, 6-8=-1709/460, 8-9=0/33
BOT CHORD 2-12=-350/1593, 10-12=-216/1148, 8-10=-369/1593
WEBS 5-10=-60/454, 6-10=-280/172, 5-12=-60/454, 4-12=-280/172

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-11 to 1-7-5, Interior (1) 1-7-5 to 10-6-4, Exterior (2) 10-6-4 to 13-6-4, Interior (1) 13-6-4 to 22-5-3 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) 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.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	E1	Roof Special Structural Gable	1	1	I50198547 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:52 Page: 1
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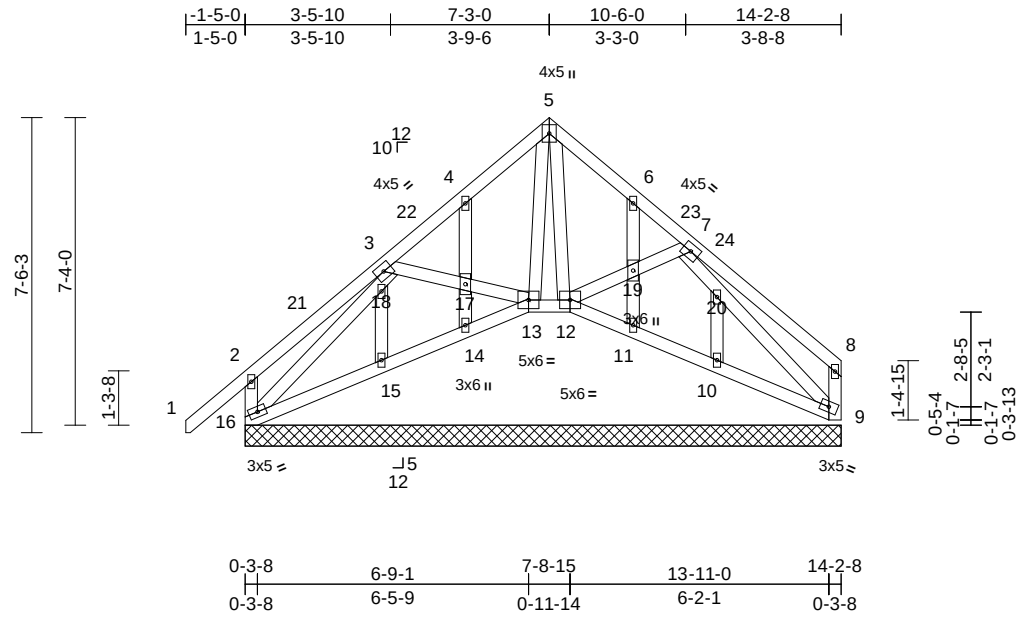


Scale = 1:54.9

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 107 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

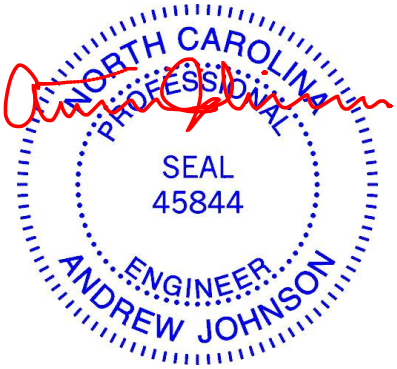
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 9=137/14-2-8, 10=85/14-2-8, 11=84/14-2-8, 12=158/14-2-8, 13=99/14-2-8, 14=114/14-2-8, 15=143/14-2-8, 16=193/14-2-8
Max Horiz 16=223 (LC 10)
Max Uplift 9=-51 (LC 14), 11=-21 (LC 14), 12=-35 (LC 14), 13=-73 (LC 10), 14=-56 (LC 13), 16=-62 (LC 14)
Max Grav 9=186 (LC 26), 10=93 (LC 30), 11=103 (LC 26), 12=193 (LC 2), 13=172 (LC 25), 14=151 (LC 25), 15=174 (LC 29), 16=237 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-172/157, 3-4=-68/84, 4-5=-100/130, 5-6=-97/119, 6-7=-56/51, 7-8=-169/142, 2-16=-279/243, 8-9=-192/128
BOT CHORD 15-16=-184/194, 14-15=-182/185, 13-14=-179/185, 12-13=-183/191, 11-12=-49/92, 10-11=-51/94, 9-10=-50/99
WEBS 5-12=-84/0, 5-13=-72/0, 16-18=-59/39, 3-18=-146/19, 7-20=-106/12, 9-20=-75/9, 3-17=-205/192, 13-17=-209/196, 12-19=-233/183, 7-19=-226/178, 4-17=-155/126, 14-17=-141/113, 15-18=-113/0, 6-19=-94/82, 11-19=-83/69, 10-20=-39/7

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 7-3-0, Exterior (2) 7-3-0 to 10-3-0, Interior (1) 10-3-0 to 14-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) N/A
13) N/A
14) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 13, 12, 9, 14, 15, 11, 10.
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.

LOAD CASE(S) Standard



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	E2	Roof Special	2	1	I50198548 Job Reference (optional)

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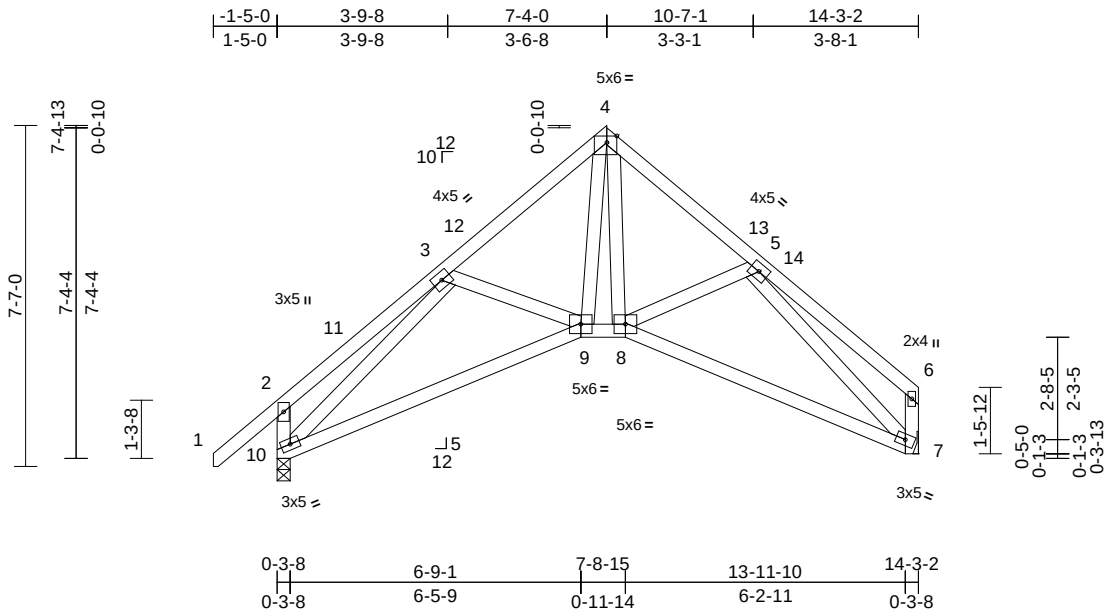

Scale = 1:51.2

Plate Offsets (X, Y): [4:0-2-10,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	0.28	Vert(LL)	-0.02	9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.09	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.05	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 94 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 (lb/size) 7=469/ Mechanical, 10=549/0-3-8
Max Horiz 10=225 (LC 10)
Max Uplift 7=-38 (LC 14), 10=-64 (LC 13)
Max Grav 7=554 (LC 2), 10=654 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-267/148, 3-4=-766/248, 4-5=-751/262, 5-6=-214/116, 2-10=-348/231, 6-7=-218/106
BOT CHORD 9-10=-228/728, 8-9=-41/510, 7-8=-192/607
WEBS 4-8=-97/354, 4-9=-109/392, 3-10=-732/157, 5-7=-714/219, 3-9=-184/183, 5-8=-162/189

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 7-4-0, Exterior (2) 7-4-0 to 10-4-0, Interior (1) 10-4-0 to 14-1-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 7.
9) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	E3	Roof Special	5	1	I50198549 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:53 Page: 1
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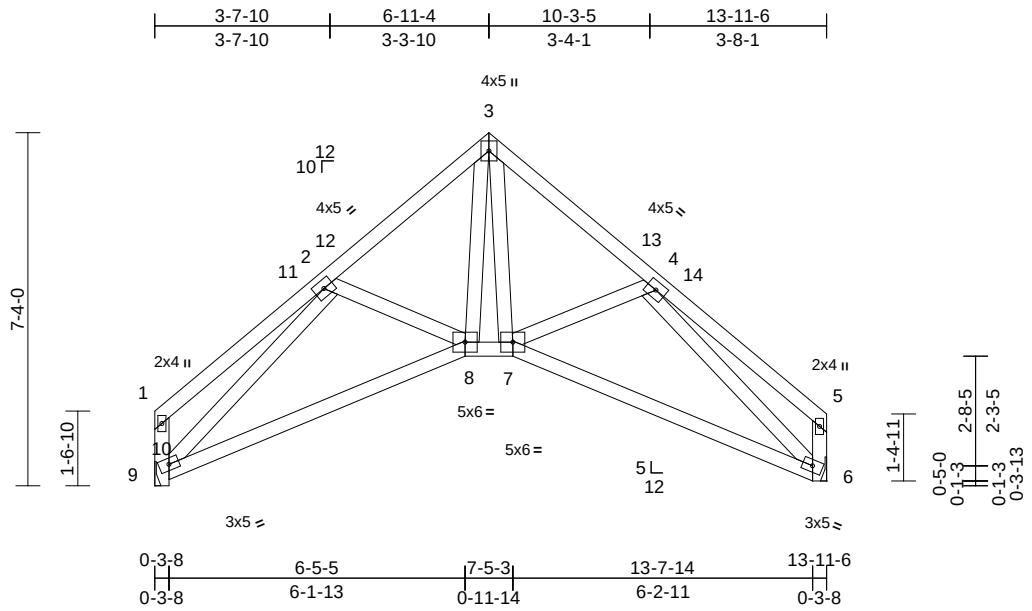

Scale = 1:47.8

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	0.23	Vert(LL)	-0.02	7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.08	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 89 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 (lb/size) 6=462/ Mechanical, 10=462/ Mechanical
Max Horiz 10=-205 (LC 11)
Max Uplift 6=-37 (LC 14), 10=-37 (LC 13)
Max Grav 6=546 (LC 2), 10=546 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-240/135, 2-3=-743/246, 3-4=-741/257, 4-5=-217/112, 9-10=-560/164, 1-9=-235/119, 5-6=-220/104
BOT CHORD 8-9=-205/705, 7-8=-43/504, 6-7=-193/611
WEBS 3-7=-94/363, 3-8=-111/374, 2-9=-705/161, 4-6=-710/218, 2-8=-155/176, 4-7=-175/194

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-5-8 to 3-5-8, Interior (1) 3-5-8 to 7-3-0, Exterior (2) 7-3-0 to 10-3-0, Interior (1) 10-3-0 to 14-1-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 6 and 37 lb uplift at joint 10.
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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	E4	Monopitch Girder	1	2	I50198550 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:53 Page: 1
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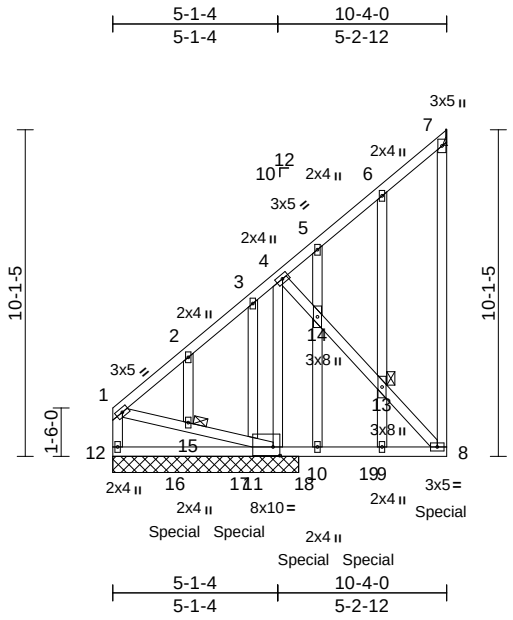


Scale = 1:71.3

Plate Offsets (X, Y): [11:0-2-8,0-3-4]

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	0.50	Vert(LL)	-0.04	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.08	9-10	>839	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.45	Horz(CT)	-0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 214 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

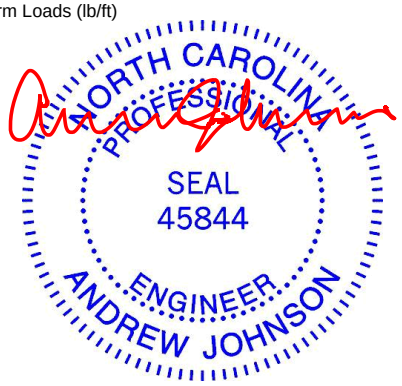
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 13, 15

REACTIONS (lb/size) 7=978/ Mechanical, 11=1574/5-9-0, 12=347/5-9-0
Max Horiz 12=390 (LC 6)
Max Uplift 7=-255 (LC 6), 11=-263 (LC 9), 12=-91 (LC 5)
Max Grav 7=1161 (LC 20), 11=1871 (LC 2), 12=506 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-274/131, 2-3=-235/135, 3-4=-181/284, 4-5=-457/146, 5-6=-264/161, 6-7=-114/149, 7-8=-195/958, 1-12=-227/85
BOT CHORD 11-12=-381/307, 10-11=-151/202, 9-10=-151/202, 8-9=-151/202
WEBS 4-11=-840/71, 4-14=-166/97, 13-14=-203/108, 8-13=-297/126, 1-15=-210/237, 11-15=-230/251, 6-13=-106/198, 9-13=-106/290, 5-14=-17/312, 10-14=-30/365, 3-11=-30/292, 2-15=-66/53

NOTES
1) 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.
Bottom chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
4) 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.
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
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) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 255 lb uplift at joint 7 and 263 lb uplift at joint 11.
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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 526 lb down and 49 lb up at 2-0-12, 526 lb down and 49 lb up at 4-0-12, 526 lb down and 49 lb up at 6-0-12, and 526 lb down and 49 lb up at 8-0-12, and 534 lb down and 44 lb up at 10-3-12 on bottom 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)



February 13,2022

Continued on page 2

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

Vert: 1-7=-48, 8-12=-20
Concentrated Loads (lb)
Vert: 8=-450 (F), 16=-442 (F), 17=-442 (F), 18=-442 (F), 19=-442 (F)

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	EJ1	Jack-Open	4	1	I50198551 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:54 Page: 1
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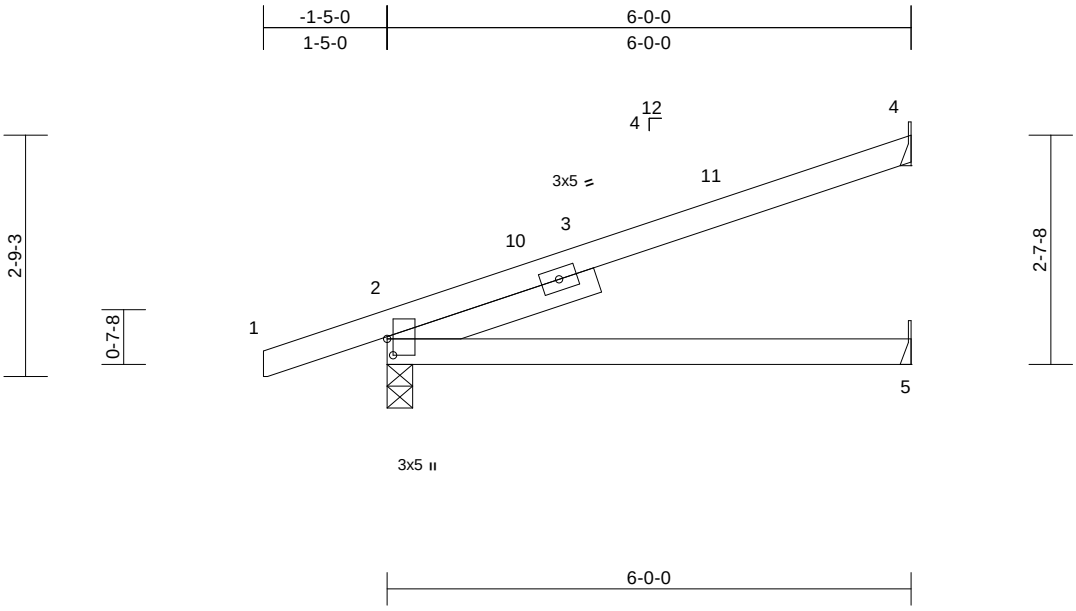

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Plate Offsets (X, Y): [2:0-2-4,0-0-13]

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	0.52	Vert(LL)	0.08	5-8	>881	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.12	5-8	>616	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 2-6-0

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

REACTIONS (lb/size) 2=275/0-3-8, 4=125/ Mechanical, 5=69/ Mechanical
Max Horiz 2=95 (LC 11)
Max Uplift 2=-83 (LC 11), 4=-62 (LC 15)
Max Grav 2=331 (LC 2), 4=154 (LC 2), 5=74 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-4=-241/40
BOT CHORD 2-5=-279/194

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-11 to 1-7-5, Interior (1) 1-7-5 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 62 lb uplift at joint 4.
8) 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.
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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	EJ2	Jack-Open	7	1	I50198552 Job Reference (optional)

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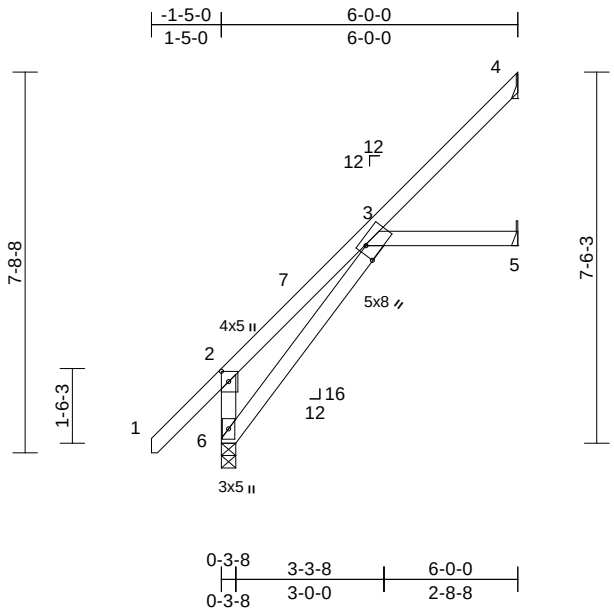


Scale = 1:46.6

Plate Offsets (X, Y): [2:0-2-8,0-1-12], [3:0-1-14,0-3-6]

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	0.68	Vert(LL)	0.22	3	>322	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.26	3	>269	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.41	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 30 lb	FT = 20%

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

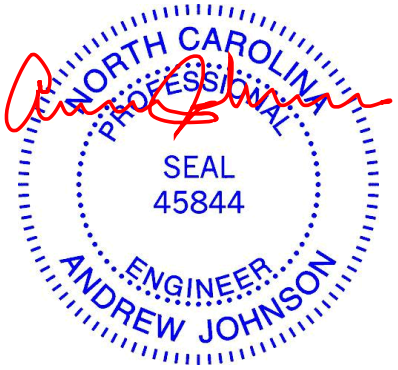
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-1-0 oc bracing.

REACTIONS (lb/size) 4=99/ Mechanical, 5=88/ Mechanical, 6=277/0-3-8
Max Horiz 6=237 (LC 13)
Max Uplift 4=-122 (LC 13), 5=-66 (LC 13)
Max Grav 4=156 (LC 25), 5=127 (LC 25), 6=333 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-730/555, 1-2=0/80, 2-3=-651/541, 3-4=-169/167
BOT CHORD 3-6=-851/836, 3-5=-8/7

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 4 and 66 lb uplift at joint 5.
8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	EJ3	Monopitch	1	1	I50198553 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:54 Page: 1
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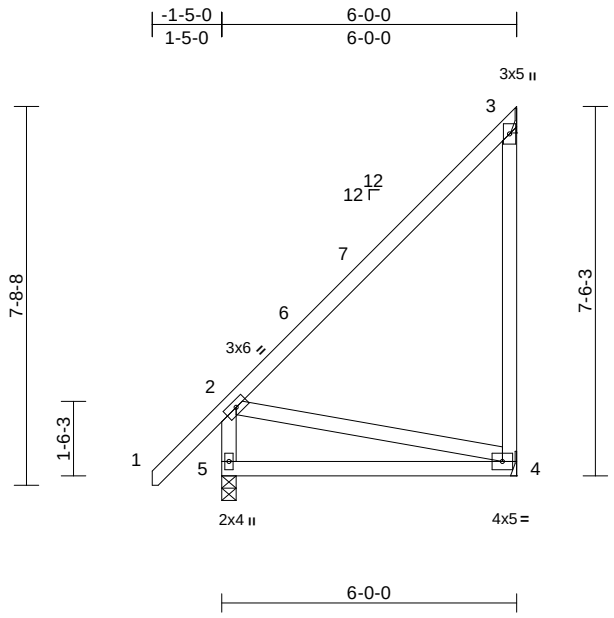

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 45 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 3-4:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-3-8 oc bracing.

REACTIONS (lb/size) 3=127/ Mechanical, 4=57/ Mechanical, 5=274/0-3-8
Max Horiz 5=309 (LC 10)
Max Uplift 3=-159 (LC 10), 4=-21 (LC 10), 5=-37 (LC 9)
Max Grav 3=220 (LC 25), 4=92 (LC 11), 5=374 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/80, 2-3=-398/382, 3-4=0/0, 2-5=-317/245
BOT CHORD 4-5=-626/600
WEBS 2-4=-481/523

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 5-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 3 and 21 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	EJ4	Monopitch	1	1	I50198554 Job Reference (optional)

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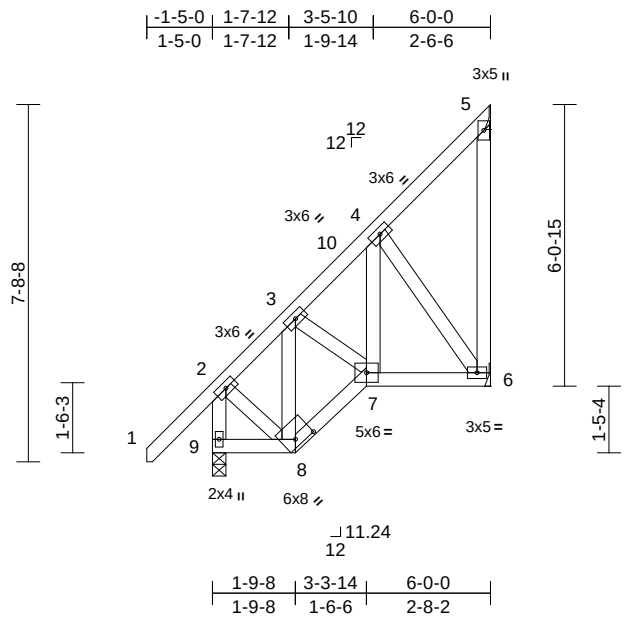


Scale = 1:49.7

Plate Offsets (X, Y): [8:0-4-12,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	0.00	7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	0.00	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 55 lb	FT = 20%

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

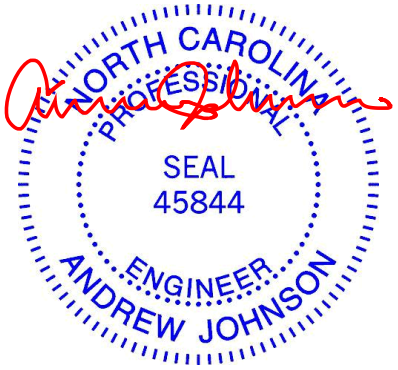
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-9-15 oc bracing.

REACTIONS (lb/size) 5=45/ Mechanical, 6=139/ Mechanical, 9=274/0-3-8
Max Horiz 9=287 (LC 10)
Max Uplift 5=-85 (LC 12), 6=-99 (LC 13), 9=-33 (LC 9)
Max Grav 5=87 (LC 25), 6=215 (LC 25), 9=370 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/80, 2-3=-216/144, 3-4=-228/103, 4-5=-219/217, 5-6=0/0, 2-9=-353/212
BOT CHORD 8-9=-578/547, 7-8=-413/475, 6-7=-302/363
WEBS 3-8=-166/78, 3-7=-39/48, 4-7=-242/329, 4-6=-432/351, 2-8=-255/353

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 5-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 5 and 99 lb uplift at joint 6.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

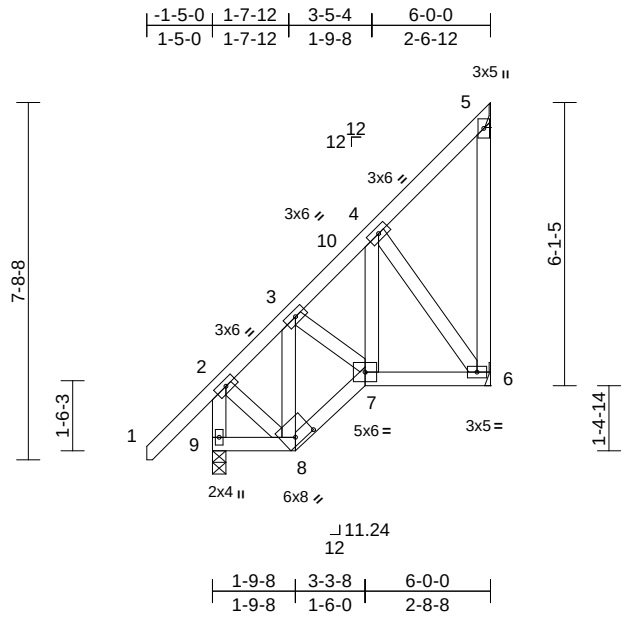


February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	EJ5	Monopitch	1	1	I50198555 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:55 Page: 1
ID:1vv1X1IAYxW5nDi6ef7DG3ztL1x-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:49.7

Plate Offsets (X, Y): [8:0-4-12,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	0.00	7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	0.00	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 55 lb	FT = 20%

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

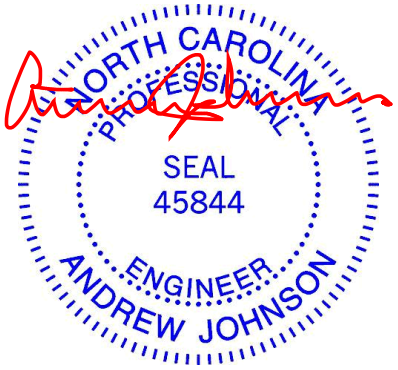
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-9-13 oc bracing.

REACTIONS (lb/size) 5=46/ Mechanical, 6=138/ Mechanical, 9=274/0-3-8
Max Horiz 9=287 (LC 10)
Max Uplift 5=-86 (LC 12), 6=-99 (LC 13), 9=-33 (LC 9)
Max Grav 5=88 (LC 25), 6=214 (LC 25), 9=370 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/80, 2-3=-216/144, 3-4=-229/103, 4-5=-221/219, 5-6=0/0, 2-9=-353/212
BOT CHORD 8-9=-579/548, 7-8=-413/475, 6-7=-304/365
WEBS 3-8=-165/78, 3-7=-37/51, 4-7=-240/327, 4-6=-432/351, 2-8=-256/354

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 5-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 5 and 99 lb uplift at joint 6.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



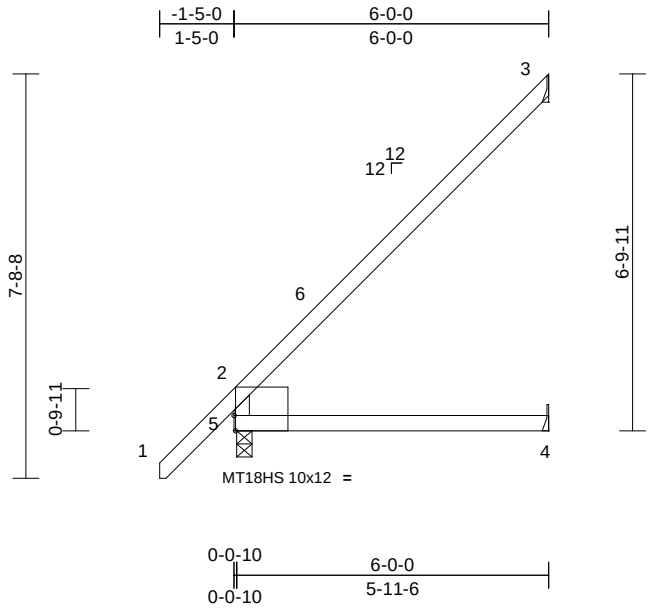
February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	EJ6	Jack-Open	3	1	I50198556 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:55 Page: 1

ID:yr9kP0qVTOIISBVDu7_y9HztK_7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:43.9

Plate Offsets (X, Y): [5:0-0-5,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	0.93	Vert(LL)	0.11	4-5	>621	240	MT18HS	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.17	4-5	>408	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.09	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, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=121/ Mechanical, 4=66/ Mechanical, 5=277/0-3-8
Max Horiz 5=245 (LC 13)
Max Uplift 3=-154 (LC 13), 4=-1 (LC 13)
Max Grav 3=190 (LC 25), 4=79 (LC 25), 5=333 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-287/111, 1-2=0/80, 2-3=-232/198
BOT CHORD 4-5=0/0

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 154 lb uplift at joint 3 and 1 lb uplift at joint 4.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F1	Hip Girder	1	1	I50198557 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:56 Page: 1

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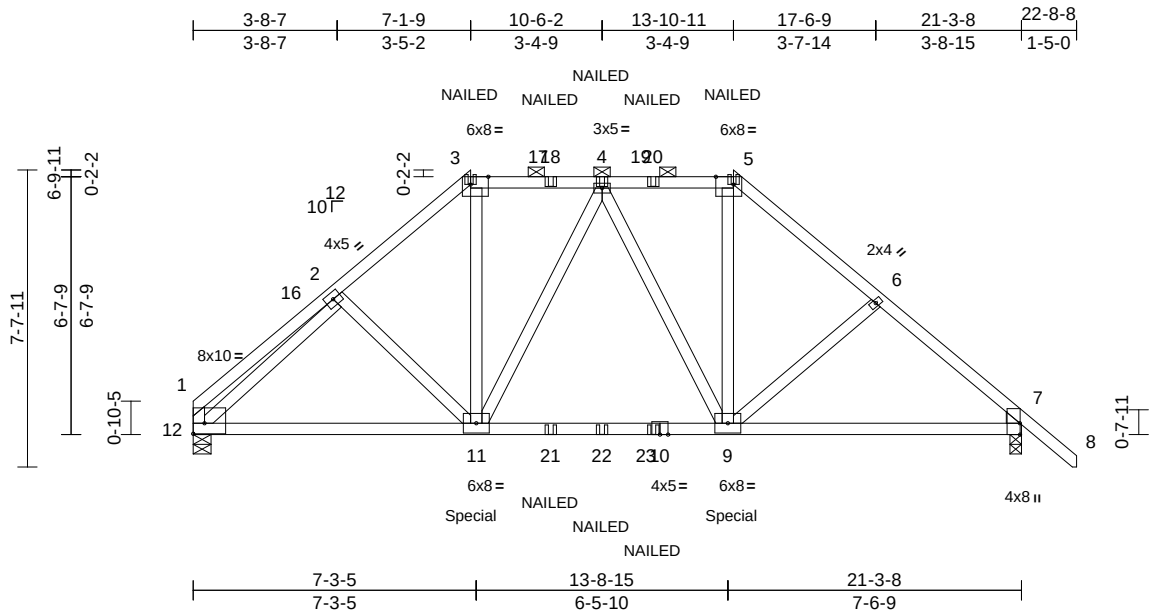


Scale = 1:59.2

Plate Offsets (X, Y): [1:Edge,0-3-4], [3:0-5-7,Edge], [5:0-5-7,Edge], [7:0-3-8,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	0.65	Vert(LL)	0.15	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.20	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.99	Horz(CT)	0.05	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 134 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3
WEDGE Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-1-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-15 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 8-8-9 oc bracing.

REACTIONS (lb/size) 7=1419/0-3-8, 12=1382/0-5-8
Max Horiz 12=-194 (LC 9)
Max Uplift 7=-752 (LC 12), 12=-761 (LC 11)
Max Grav 7=1998 (LC 44), 12=1914 (LC 42)

FORCES (lb) - Maximum Compression/Maximum Tension

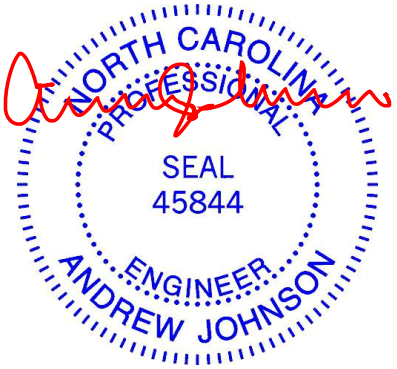
TOP CHORD 1-2=-433/152, 2-3=-2378/1107, 3-4=-1856/914, 4-5=-1872/916, 5-6=-2380/1100, 6-7=-2528/1084, 7-8=0/83, 1-12=-378/130
BOT CHORD 11-12=-789/1834, 9-11=-902/2040, 7-9=-719/1833
WEBS 3-11=-550/1231, 5-9=-535/1222, 2-12=-2122/937, 2-11=-172/334, 4-9=-334/305, 4-11=-367/302, 6-9=-179/250

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 7. 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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 732 lb down and 418 lb up at 7-1-9, and 710 lb down and 389 lb up at 13-9-15 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
13) 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=-48, 3-5=-58, 5-8=-48, 12-13=-20
Concentrated Loads (lb)
Vert: 3=-5 (B), 5=-5 (B), 11=-460 (B), 9=-439 (B), 4=-63 (B), 18=-63 (B), 20=-63 (B), 21=-46 (B), 22=-46 (B), 23=-46 (B)



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F2	Hip	1	1	I50198558 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:57
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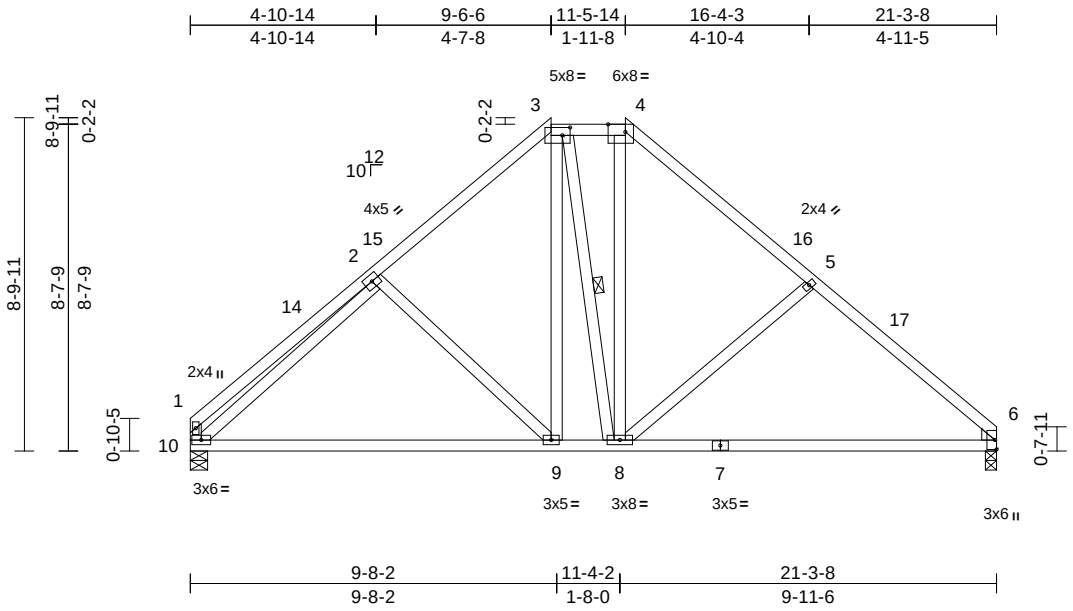

Scale = 1:60.8

Plate Offsets (X, Y): [3:0-2-8,0-2-8], [4:0-5-7,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	0.39	Vert(LL)	0.03	8-13	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.21	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 138 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-7-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-8

REACTIONS (lb/size) 6=726/0-3-8, 10=726/0-5-8
Max Horiz 10=-227 (LC 11)
Max Uplift 6=-63 (LC 14), 10=-60 (LC 13)
Max Grav 6=846 (LC 2), 10=846 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-452/136, 2-3=-836/331, 3-4=-700/321, 4-5=-841/331, 5-6=-1012/333, 1-10=-394/147
BOT CHORD 9-10=-146/734, 8-9=-10/558, 6-8=-148/739
WEBS 3-9=-74/328, 3-8=-128/129, 4-8=-98/341, 2-10=-630/201, 2-9=-318/238, 5-8=-377/238

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 9-6-6, Exterior (2) 9-6-6 to 15-8-13, Interior (1) 15-8-13 to 21-3-8 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Provide adequate drainage to prevent water ponding.
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) 10 and 6. 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.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F3	Common	1	1	I50198559 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:57

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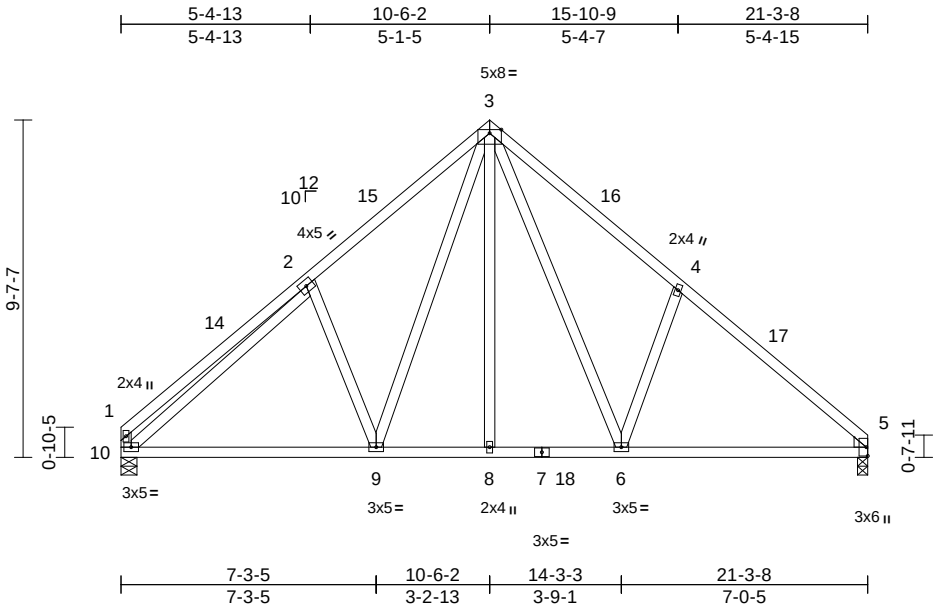


Scale = 1:65.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	0.03	6-13	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.09	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 141 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-2-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=716/0-3-8, 10=716/0-5-8
Max Horiz 10=-251 (LC 11)
Max Uplift 5=-65 (LC 14), 10=-62 (LC 13)
Max Grav 5=846 (LC 2), 10=846 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-441/204, 2-3=-1033/404, 3-4=-1098/432, 4-5=-1045/294, 1-10=-398/196
BOT CHORD	9-10=-105/801, 8-9=0/557, 6-8=0/557, 5-6=-107/737
WEBS	2-10=-685/89, 3-9=-176/491, 2-9=-369/270, 3-6=-214/568, 3-8=0/106, 4-6=-422/279

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 10-6-2, Exterior (2) 10-6-2 to 13-6-2, Interior (1) 13-6-2 to 21-3-8 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) * 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.
5) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 5. This connection is for uplift only and does not consider lateral forces.
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

February 13,2022

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

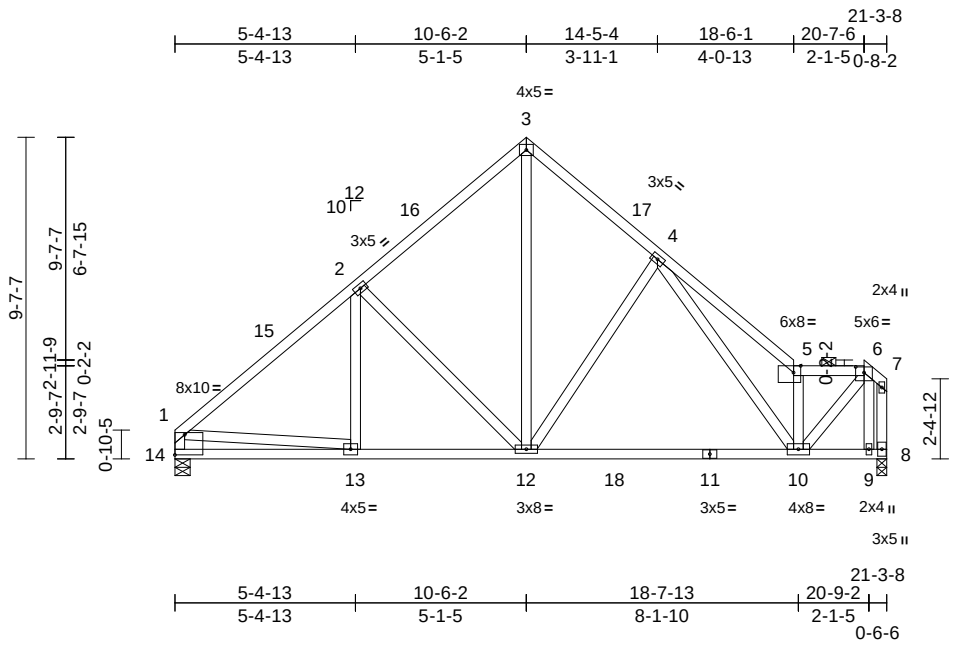
Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F4	Roof Special	1	1	I50198560 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:58

ID:8Jy0Yr_jsuPgzxqgVIiT2XztJyd-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:68.9

Plate Offsets (X, Y): [1:Edge,0-7-4], [5:0-2-9,Edge], [6:0-3-0,0-2-1]

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	0.41	Vert(LL)	-0.11	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.23	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 146 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 5-1-7 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 8=731/0-3-8, 14=713/0-5-8
Max Horiz 14=274 (LC 12)
Max Uplift 8=-68 (LC 14), 14=-62 (LC 13)
Max Grav 8=840 (LC 2), 14=840 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-996/269, 2-3=-823/326, 3-4=-832/325, 4-5=-1219/386, 5-6=-796/201, 6-7=-264/131, 1-14=-786/242, 7-8=-306/128
BOT CHORD 13-14=-270/353, 12-13=-224/797, 10-12=-179/662, 9-10=-63/143, 8-9=-55/107
WEBS 5-10=-951/337, 6-10=-227/1102, 1-13=-18/534, 4-10=-125/409, 2-13=0/73, 2-12=-430/222, 3-12=-272/779, 4-12=-398/241, 6-9=-691/144

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 10-6-2, Exterior (2) 10-6-2 to 13-6-2, Interior (1) 13-6-2 to 20-7-6, Exterior (2) 20-7-6 to 21-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 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.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F5	Roof Special	1	1	I50198561 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:58 Page: 1
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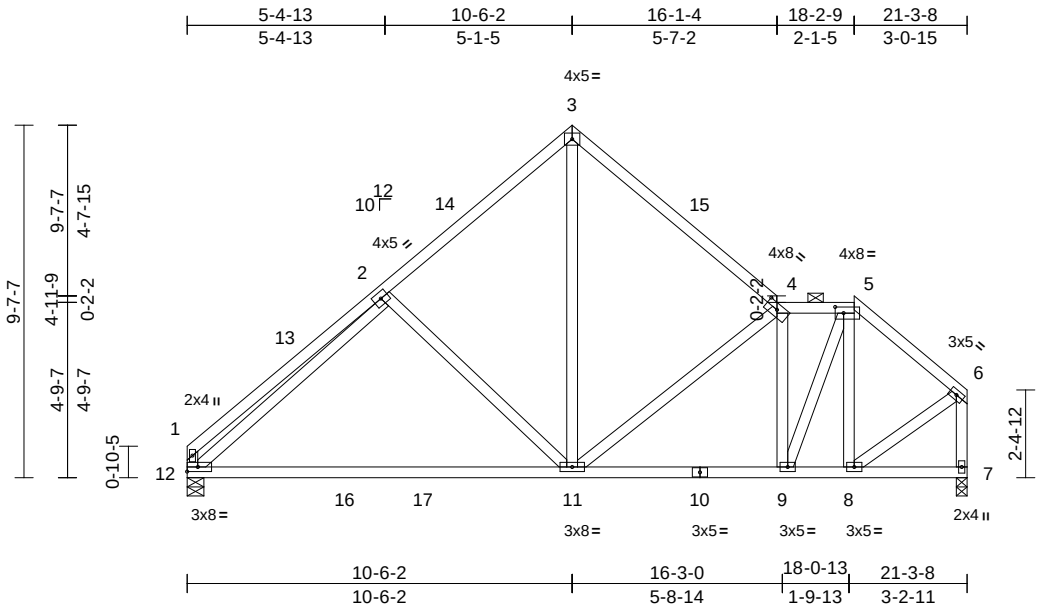

Scale = 1:62.9

Plate Offsets (X, Y): [4:0-4-0,0-1-14], [5:0-2-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.21	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.50	11-12	>500	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 145 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 5-2-6 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.

REACTIONS (lb/size) 7=728/0-3-8, 12=715/0-5-8
Max Horiz 12=274 (LC 10)
Max Uplift 7=-68 (LC 14), 12=-62 (LC 13)
Max Grav 7=840 (LC 2), 12=840 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-544/154, 2-3=-822/323, 3-4=-807/297, 4-5=-774/284, 5-6=-679/225, 1-12=-452/166, 6-7=-812/252
BOT CHORD 11-12=-239/773, 9-11=-222/732, 8-9=-144/481, 7-8=-38/53
WEBS 2-11=-361/251, 3-11=-202/684, 4-11=-382/241, 4-9=-515/190, 5-9=-181/590, 5-8=-264/116, 2-12=-550/160, 6-8=-134/576

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 10-6-2, Exterior (2) 10-6-2 to 13-6-2, Interior (1) 13-6-2 to 18-2-9, Exterior (2) 18-2-9 to 21-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 7. 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.
8) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F6	Roof Special	1	1	I50198562 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:49:59 Page: 1
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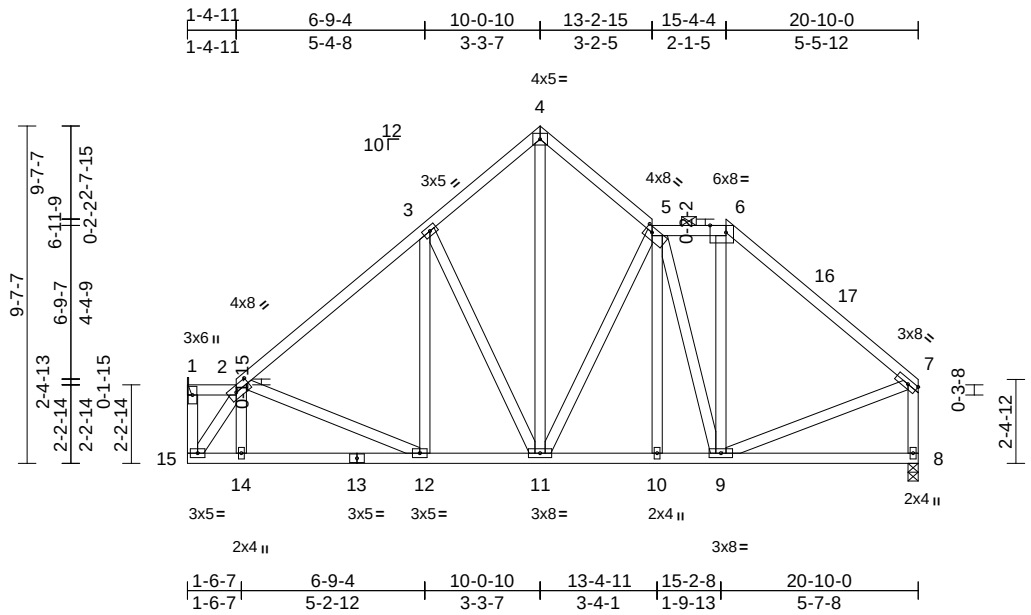

Scale = 1:65.7

Plate Offsets (X, Y): [2:0-5-4,0-2-0], [5:0-2-8,0-1-12], [6:0-5-7,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	0.44	Vert(LL)	-0.02	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.05	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 170 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 5-7-2 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=714/ Mechanical, 8=710/0-3-8
Max Horiz 1=271 (LC 10)
Max Uplift 1=-65 (LC 13), 8=-70 (LC 14)
Max Grav 1=822 (LC 2), 8=822 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-15=-233/837, 1-2=-268/251, 2-3=-868/314, 3-4=-810/390, 4-5=-781/359, 5-6=-636/285, 6-7=-770/256, 7-8=-770/245
BOT CHORD 14-15=-161/551, 12-14=-156/557, 11-12=-129/611, 10-11=-132/597, 9-10=-132/598, 8-9=-62/98
WEBS 2-15=-995/264, 5-10=0/23, 5-9=-274/62, 6-9=0/200, 7-9=-56/505, 2-14=0/96, 2-12=-127/163, 4-11=-378/831, 5-11=-406/239, 3-11=-446/224, 3-12=-3/135

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 1-4-11, Interior (1) 1-4-11 to 10-0-10, Exterior (2) 10-0-10 to 13-2-15, Interior (1) 13-2-15 to 15-4-4, Exterior (2) 15-4-4 to 18-4-4, Interior (1) 18-4-4 to 20-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Provide adequate drainage to prevent water ponding.
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 65 lb uplift at joint 1.
8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. 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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F7	Roof Special	1	1	I50198563 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:00 Page: 1

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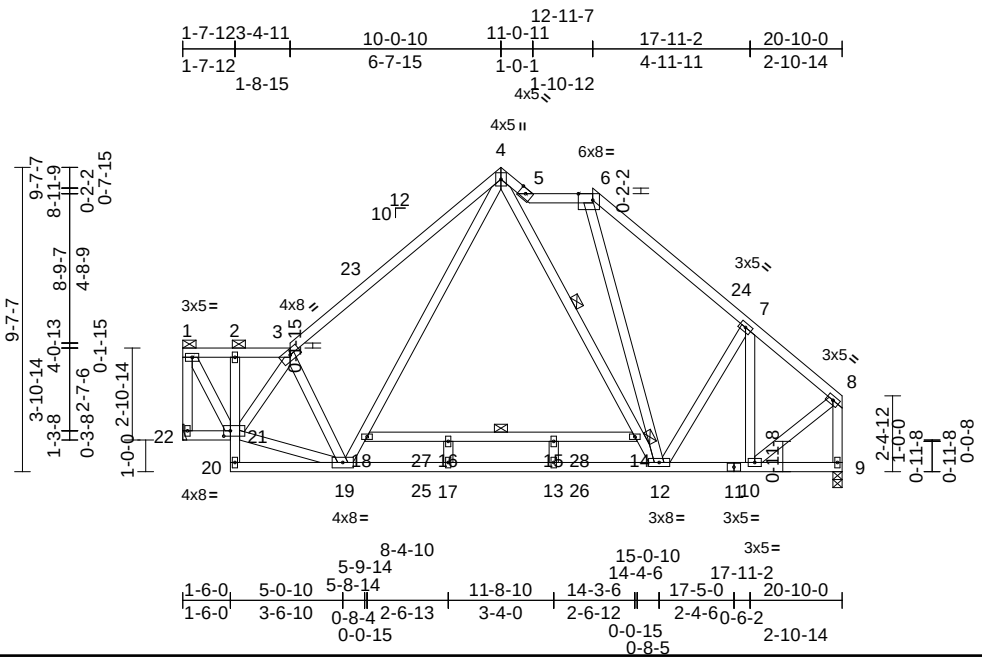

Scale = 1:72.8

Plate Offsets (X, Y): [6:0-5-7,Edge], [21:0-2-8,0-2-0]

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	0.32	Vert(LL)	-0.29	13-17	>850	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.59	15-16	>414	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 177 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E

BOT CHORD 2x4 SP 2400F 2.0E *Except* 2-20:2x4 SP No.3

WEBS 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.): 1-3, 5-6.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 20-21,19-20.
6-0-0 oc bracing: 14-18

WEBS 1 Row at midpt 4-14

REACTIONS (lb/size) 9=891/0-3-8, 22=928/ Mechanical
Max Horiz 22=-274 (LC 9)
Max Grav 9=1058 (LC 25), 22=1069 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-997/83, 1-2=-556/63, 2-3=-555/56, 3-4=-1353/126, 4-5=-681/170, 5-6=-767/198, 6-7=-1085/130, 7-8=-804/103, 8-9=-982/112

BOT CHORD 21-22=-242/256, 20-21=-134/0, 2-21=-71/95, 19-20=-52/39, 17-19=0/786, 13-17=0/786, 12-13=0/786, 10-12=-76/590, 9-10=-30/55, 16-18=-78/0, 15-16=-78/0, 14-15=-78/0

WEBS 1-21=-53/1079, 3-21=-952/104, 8-10=-65/721, 7-12=0/401, 18-19=-19/521, 4-18=0/684, 3-19=-436/294, 19-21=-31/1225, 4-14=-89/229, 12-14=-165/121, 7-10=-653/0, 6-12=0/343, 16-17=-27/16, 13-15=-26/18

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-4-11, Interior (1) 3-4-11 to 10-0-10, Exterior (2) 10-0-10 to 11-0-1, Interior (1) 11-0-1 to 12-11-7, Exterior (2) 12-11-7 to 17-2-6, Interior (1) 17-2-6 to 20-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) 200.0lb AC unit load placed on the bottom chord, 10-0-10 from left end, supported at two points, 5-0-0 apart.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
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) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F8	Roof Special	1	1	I50198564 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:00
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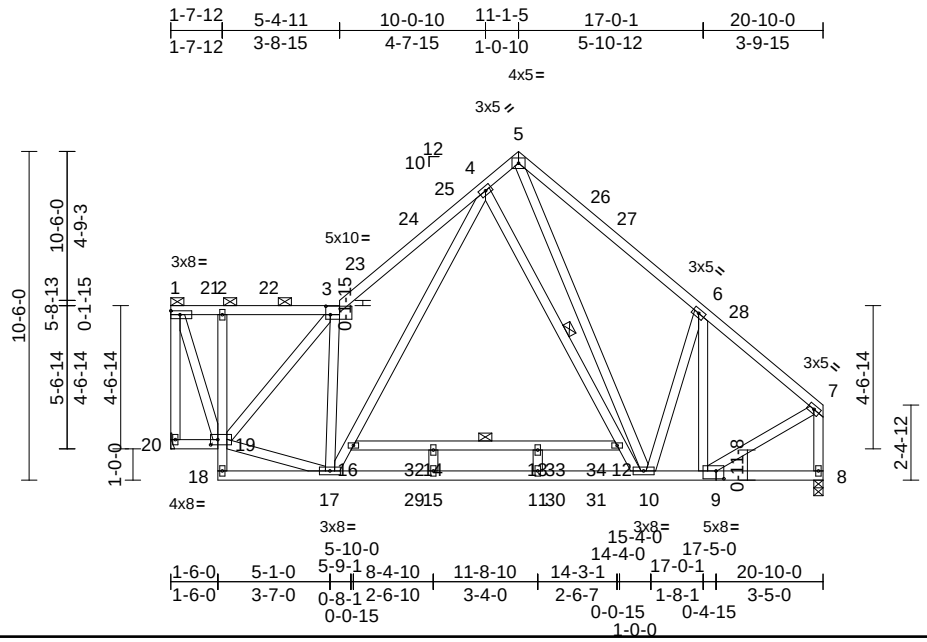

Scale = 1:73.6

Plate Offsets (X, Y): [3:0-1-12,0-3-4], [9:0-3-0,0-3-0], [19:0-2-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.28	13-14	>888	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.59	13-14	>414	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 194 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E *Except* 2-18:2x4 SP No.3
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 18-19,17-18.
6-0-0 oc bracing: 12-16
WEBS 1 Row at midpt 4-10

REACTIONS (lb/size) 8=892/0-3-8, 20=926/ Mechanical
Max Horiz 20=-321 (LC 11)
Max Grav 8=1067 (LC 29), 20=1057 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-20=-984/93, 1-2=-373/107, 2-3=-378/108, 3-4=-1388/207, 4-5=-672/201, 5-6=-1147/183, 6-7=-874/69, 7-8=-1000/86
BOT CHORD 19-20=-269/295, 18-19=-119/0, 2-19=-313/127, 17-18=-42/35, 15-17=0/838, 11-15=0/838, 10-11=0/838, 8-10=-37/689, 14-16=-159/0, 13-14=-159/0, 12-13=-159/0
WEBS 1-19=-98/1018, 3-19=-1003/38, 7-9=-16/734, 3-17=-476/325, 17-19=0/1059, 5-10=-151/954, 6-10=-29/460, 6-9=-681/0, 4-12=-540/195, 10-12=-724/125, 16-17=-131/590, 4-16=-66/793, 14-15=0/51, 11-13=-62/21

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 11-1-5, Exterior (2) 11-1-5 to 14-1-5, Interior (1) 14-1-5 to 20-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) 200.0lb AC unit load placed on the bottom chord, 11-1-5 from left end, supported at two points, 5-0-0 apart.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F9	Roof Special	1	1	I50198565 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:01 Page: 1
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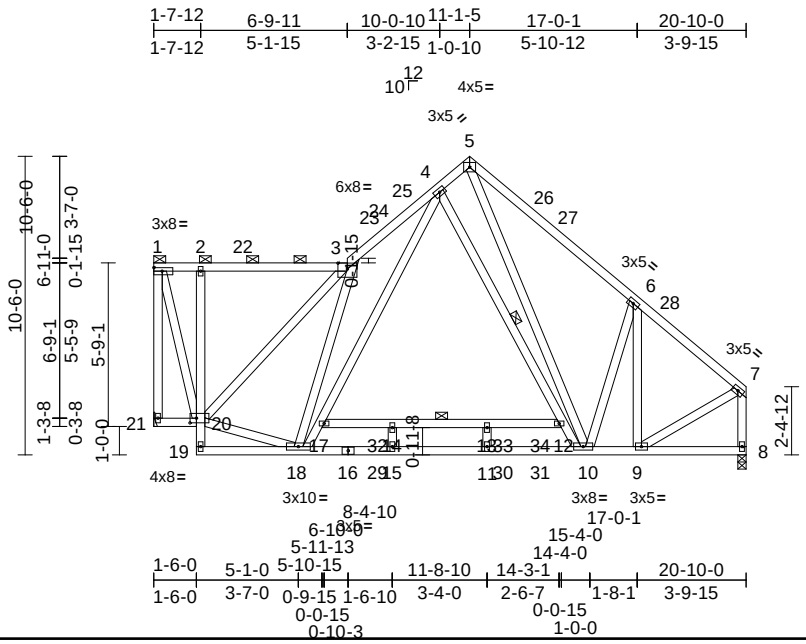

Plate Offsets (X, Y): [3:0-4-0,0-2-8], [20:0-2-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.27	13-14	>916	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.58	13-14	>423	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 205 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E *Except* 2-19:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 18-3,4-18:2x4 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 19-20,18-19.
6-0-0 oc bracing: 12-17
WEBS 1 Row at midpt 4-10

REACTIONS (lb/size) 8=896/0-3-8, 21=934/ Mechanical
Max Horiz 21=-338 (LC 11)
Max Grav 8=1065 (LC 29), 21=1088 (LC 46)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-21=-1004/103, 1-2=-335/138, 2-3=-343/142, 3-4=-1388/313, 4-5=-647/180, 5-6=-1150/185, 6-7=-918/71, 7-8=-1005/87
BOT CHORD 20-21=-336/358, 19-20=-107/0, 2-20=-463/201, 18-19=-37/42, 15-18=0/764, 11-15=0/764, 10-11=0/764, 9-10=-45/665, 8-9=-31/52, 14-17=-116/0, 13-14=-116/0, 12-13=-116/0
WEBS 1-20=-146/1074, 3-20=-949/46, 7-9=-17/744, 3-18=-616/431, 18-20=0/967, 5-10=-103/871, 6-10=-1/513, 6-9=-707/0, 4-12=-422/147, 10-12=-576/60, 17-18=-261/720, 4-17=-183/928, 14-15=0/84, 11-13=-86/21

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 11-1-5, Exterior (2) 11-1-5 to 14-1-5, Interior (1) 14-1-5 to 20-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) 200.0lb AC unit load placed on the bottom chord, 11-1-5 from left end, supported at two points, 5-0-0 apart.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F10	Roof Special	1	1	I50198566 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:02 Page: 1

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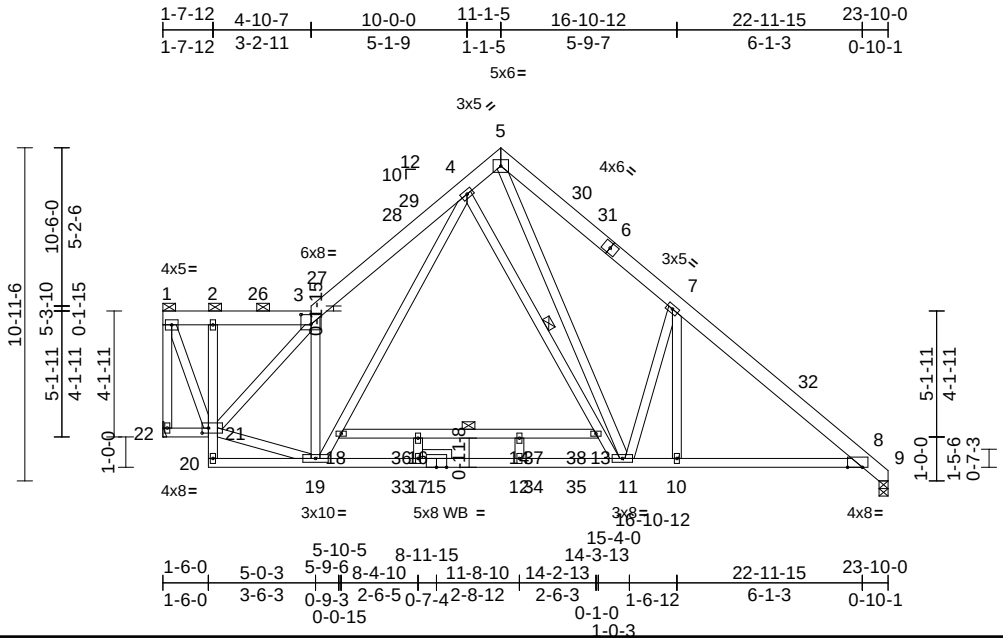

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Plate Offsets (X, Y): [3:0-4-0,0-3-12], [8:0-5-14,Edge], [21:0-2-8,0-2-0]

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	0.70	Vert(LL)	-0.27	14-16	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.61	14-16	>462	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 217 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2

BOT CHORD 2x4 SP 2400F 2.0E *Except* 2-20:2x4 SP No.3

WEBS 2x4 SP No.3

OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 20-21,19-20.
6-0-0 oc bracing: 13-18

WEBS 1 Row at midpt 4-11

REACTIONS (lb/size) 9=971/0-3-8, 22=1048/ Mechanical
Max Horiz 22=-328 (LC 11)
Max Grav 9=1162 (LC 30), 22=1201 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-1122/93, 1-2=-452/94, 2-3=-457/94, 3-4=-1602/226, 4-5=-869/207, 5-7=-1645/236, 7-8=-1585/116, 8-9=-740/75

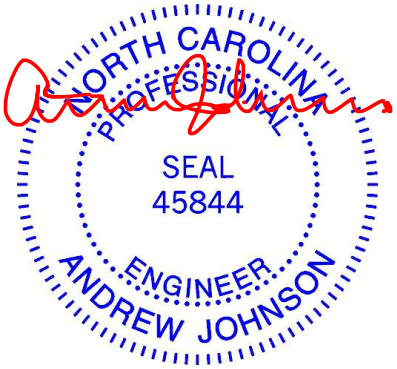
BOT CHORD 21-22=-255/301, 20-21=-116/0, 2-21=-231/94, 19-20=-35/47, 17-19=0/940, 12-17=0/940, 11-12=0/940, 10-11=0/1205, 8-10=-118/1254, 16-18=-110/0, 14-16=-110/0, 13-14=-110/0

WEBS 1-21=-85/1155, 3-21=-1128/48, 3-19=-508/294, 19-21=0/1240, 5-11=-190/1353, 7-11=-551/444, 7-10=-245/0, 4-13=-379/187, 11-13=-532/114, 18-19=-136/577, 4-18=-68/754, 16-17=0/61, 12-14=-71/19

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 11-1-5, Exterior (2) 11-1-5 to 14-1-5, Interior (1) 14-1-5 to 23-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) 200.0lb AC unit load placed on the bottom chord, 11-1-5 from left end, supported at two points, 5-0-0 apart.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
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) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F11	Roof Special	1	1	I50198567 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:03 Page: 1

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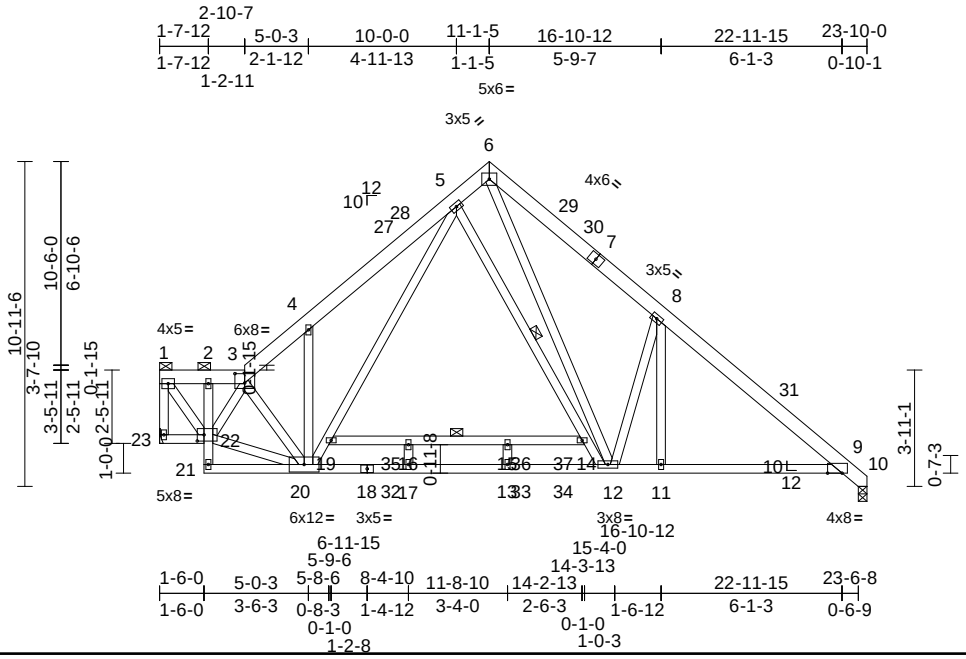


Scale = 1:77.6

Plate Offsets (X, Y): [3:0-4-0,0-3-12], [9:0-5-14,Edge], [22:0-2-12,0-2-8]

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	0.70	Vert(LL)	-0.29	15-16	>980	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.65	15-16	>437	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.05	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 210 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2

BOT CHORD 2x4 SP 2400F 2.0E *Except* 2-21:2x4 SP No.3

WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 21-22,20-21.
6-0-0 oc bracing: 14-19

WEBS 1 Row at midpt 5-12

REACTIONS (lb/size) 10=969/0-3-8, 23=1033/ Mechanical
Max Horiz 23=-304 (LC 11)
Max Grav 10=1162 (LC 30), 23=1214 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-23=-1132/80, 1-2=-790/61, 2-3=-800/60, 3-4=-1578/36, 4-5=-1671/248, 5-6=-868/207, 6-8=-1651/231, 8-9=-1585/112, 9-10=-740/74

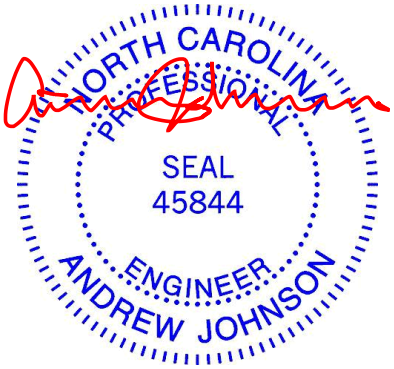
BOT CHORD 22-23=-233/292, 21-22=-130/0, 2-22=-111/50, 20-21=-40/70, 17-20=0/912, 13-17=0/912, 12-13=0/912, 11-12=0/1214, 9-11=-116/1254, 16-19=-59/0, 15-16=-59/0, 14-15=-59/0

WEBS 1-22=-62/1325, 3-22=-991/15, 4-20=-424/253, 3-20=-263/93, 20-22=0/1411, 6-12=-167/1330, 8-12=-531/445, 8-11=-268/0, 5-14=-361/168, 12-14=-468/81, 19-20=-170/670, 5-19=-92/862, 16-17=0/95, 13-15=-105/22

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 2-10-7, Interior (1) 2-10-7 to 11-1-5, Exterior (2) 11-1-5 to 14-1-5, Interior (1) 14-1-5 to 23-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) 200.0lb AC unit load placed on the bottom chord, 11-1-5 from left end, supported at two points, 5-0-0 apart.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.
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) 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



February 13,2022

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

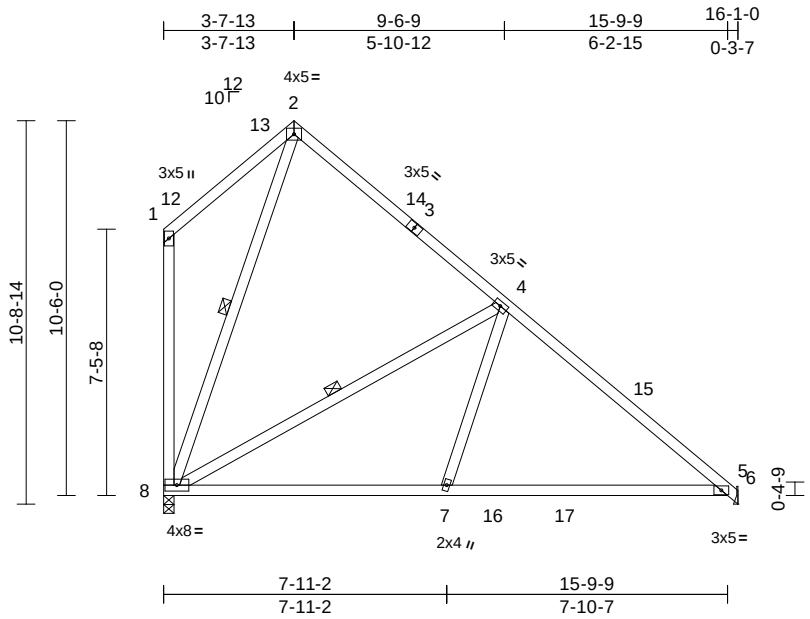
Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F12	Common	6	1	I50198568 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:04

ID:YNfjjSkI2XyJgpSajZAUjVztJm1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:64.5

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	0.96	Vert(LL)	-0.13	7-11	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.26	7-11	>731	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 104 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.3 *Except* 1-2:2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.

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

WEBS 1 Row at midpt 2-8, 4-8

REACTIONS (lb/size) 6=539/ Mechanical, 8=538/0-3-8

Max Horiz 8=-376 (LC 9)

Max Uplift 6=-40 (LC 14), 8=-101 (LC 14)

Max Grav 6=636 (LC 2), 8=673 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-310/329, 2-4=-295/220, 4-5=-749/243, 5-6=-411/118, 1-8=-292/270

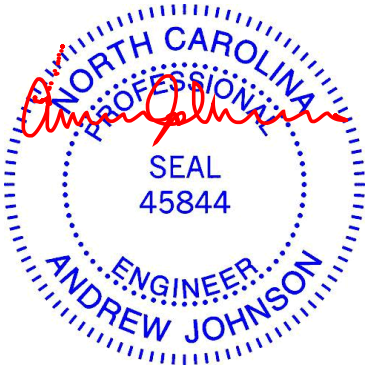
BOT CHORD 7-8=-23/648, 5-7=-118/562

WEBS 2-8=-331/222, 4-8=-774/259, 4-7=0/276

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 7-6-9 to 10-6-9, Interior (1) 10-6-9 to 11-0-10, Exterior (2) 11-0-10 to 14-0-10, Interior (1) 14-0-10 to 23-5-1 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 6.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
8) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F13	Hip	1	1	I50198569 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:05 Page: 1

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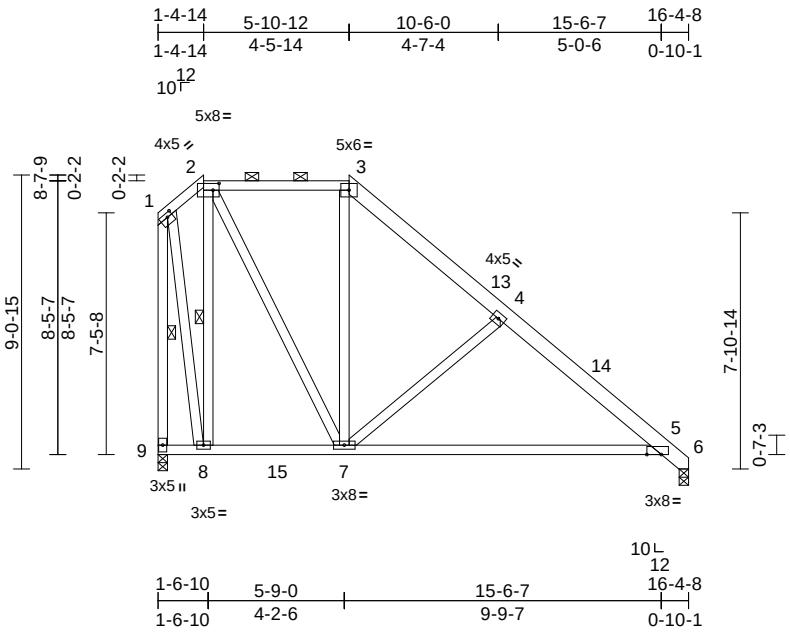


Scale = 1:71.1

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [2:0-2-4,0-2-8], [5:0-5-6,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)	-0.06	7-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.25	7-12	>767	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.04	6	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.3 *Except* 2-3:2x4 SP No.2, 3-6:2x6 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, and 2-0-0 oc purlins (6-0-0 max.): 2-3.

BOT CHORD Rigid ceiling directly applied or 8-9-10 oc bracing.

WEBS 1 Row at midpt 2-8, 1-9

REACTIONS (lb/size) 6=558/0-3-8, 9=580/0-3-8
Max Horiz 9=-332 (LC 9)
Max Uplift 6=-47 (LC 14), 9=-93 (LC 9)
Max Grav 6=647 (LC 2), 9=643 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-341/296, 2-3=-452/264, 3-4=-547/265, 4-5=-993/273, 5-6=-411/129, 1-9=-608/297

BOT CHORD 8-9=-420/433, 7-8=-319/375, 5-7=-202/593

WEBS 2-8=-676/424, 2-7=-255/570, 3-7=0/150, 4-7=-506/260, 1-8=-336/586

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 9-1-2 to 19-1-1, Interior (1) 19-1-1 to 25-2-2 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 6. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) 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

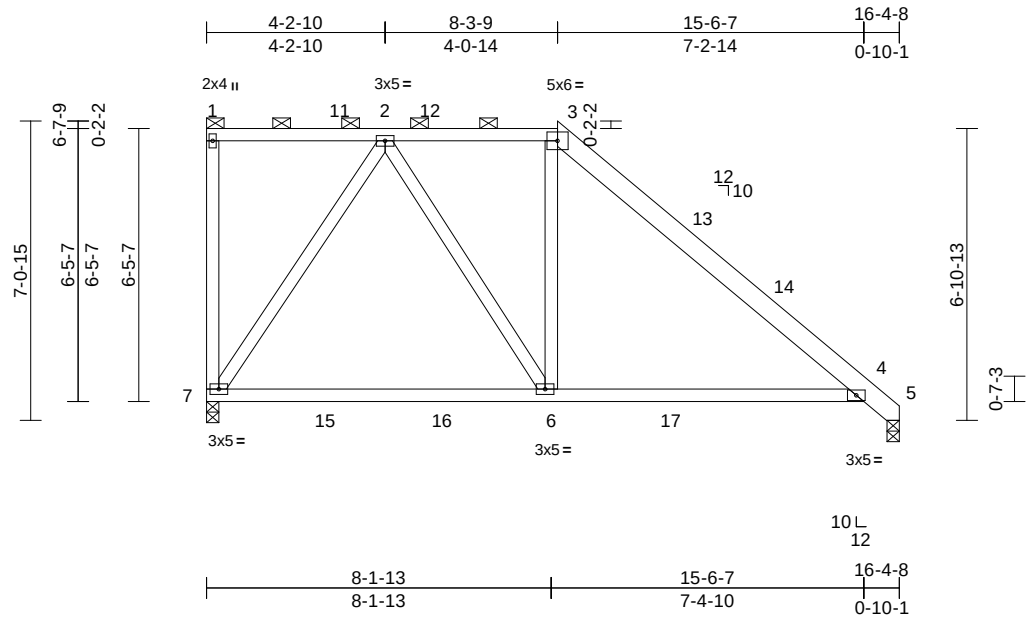
February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F14	Half Hip	1	1	I50198570 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:05 ID:uc_2Kz?5sljBJB7p0BZec8ztJlh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:54.5

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	0.58	Vert(LL)	0.13	6-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.22	6-10	>877	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.06	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 99 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 3-5:2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

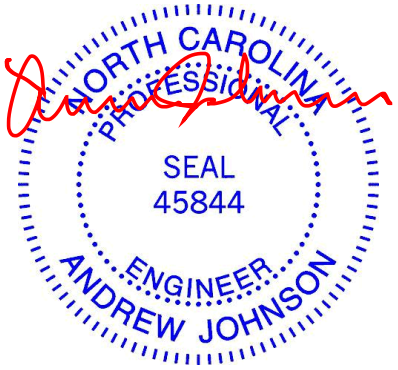
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=569/0-3-8, 7=606/0-3-8
Max Horiz 7=-262 (LC 9)
Max Uplift 5=-46 (LC 14), 7=-122 (LC 9)
Max Grav 5=656 (LC 26), 7=660 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-108/78, 1-2=-139/143, 2-3=-541/266, 3-4=-818/209, 4-5=-417/130
BOT CHORD 6-7=-71/373, 4-6=-203/582
WEBS 3-6=-111/186, 2-6=-120/394, 2-7=-568/314

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 8-3-9, Exterior (2) 8-3-9 to 11-3-9, Interior (1) 11-3-9 to 16-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
3) Provide adequate drainage to prevent water ponding.
4) * 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.
5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 5. 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.
8) 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

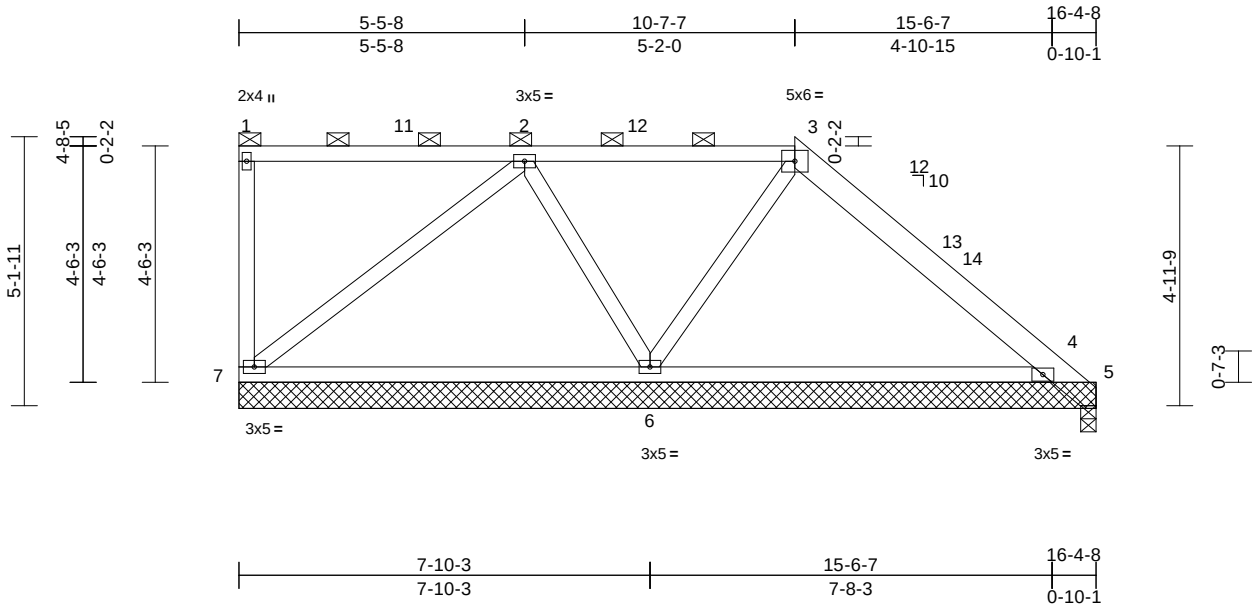


February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	F15	Half Hip	1	1	I50198571 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:06 ID:FZnxNg3EhqLUPy0mpk9pJBztJlc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:44

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	0.40	Vert(LL)	-0.01	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.09	6-7	>983	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 86 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 3-5:2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

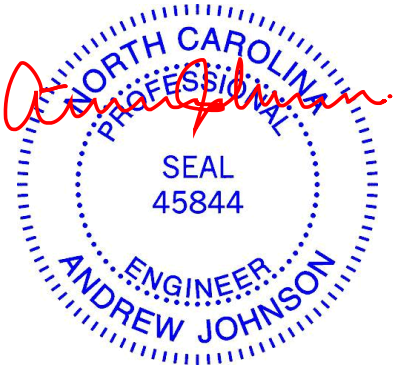
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=536/16-4-8, 5=-222/0-3-8, 6=609/16-4-8, 7=275/16-4-8, 8=536/16-4-8
Max Horiz 7=-183 (LC 9)
Max Uplift 4=-170 (LC 14), 5=-315 (LC 26), 6=-58 (LC 10), 7=-92 (LC 9), 8=-170 (LC 14)
Max Grav 4=689 (LC 26), 5=103 (LC 14), 6=640 (LC 2), 7=283 (LC 2), 8=689 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-134/91, 1-2=-105/98, 2-3=-98/98, 3-4=-206/212, 4-5=-103/271
BOT CHORD 6-7=-80/138, 4-6=-227/99
WEBS 2-7=-206/211, 2-6=-324/159, 3-6=-231/126

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 10-7-7, Exterior (2) 10-7-7 to 13-7-7, Interior (1) 13-7-7 to 16-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
3) Provide adequate drainage to prevent water ponding.
4) * 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.
5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4, 7, and 5. This connection is for uplift only and does not consider lateral forces.
7) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	G1	Common Supported Gable	1	1	I50198572 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 E Jan 6 2022 Print: 8.530 E Jan 6 2022 MiTek Industries, Inc. Fri Feb 11 16:59:45 Page: 1
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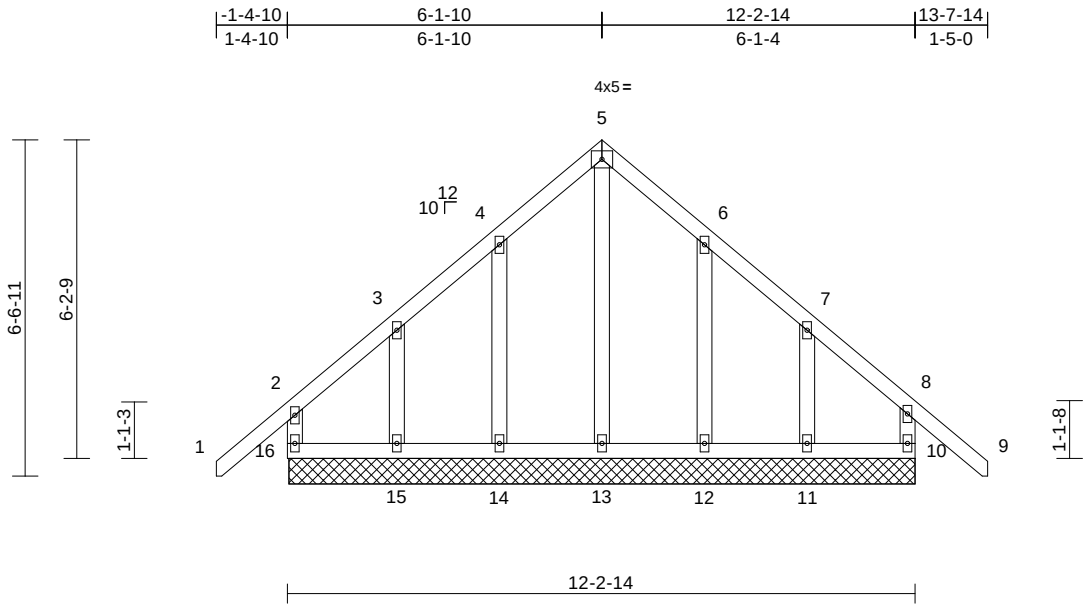

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 77 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

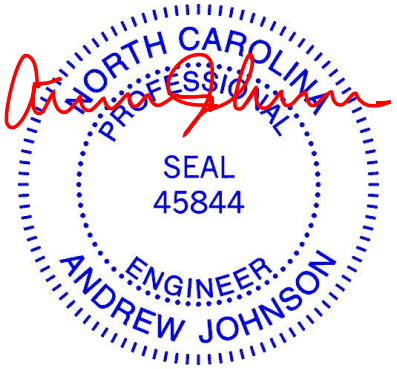
TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS All bearings 12-2-8.
(lb) - Max Horiz 16=198 (LC 12)
Max Uplift All uplift 100 (lb) or less at joint(s) 10, 11, 12, 14, 16 except 15=-103 (LC 13)
Max Grav All reactions 250 (lb) or less at joint (s) 10, 11, 12, 13, 14, 15, 16

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-225/274, 5-6=-225/273
WEBS 5-13=-262/151

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) -1-4-0 to 1-8-0, Exterior (2) 1-8-0 to 6-1-10, Corner (3) 6-1-10 to 9-1-10, Exterior (2) 9-1-10 to 13-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
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.



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	G2	Common	6	1	I50198573 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:06
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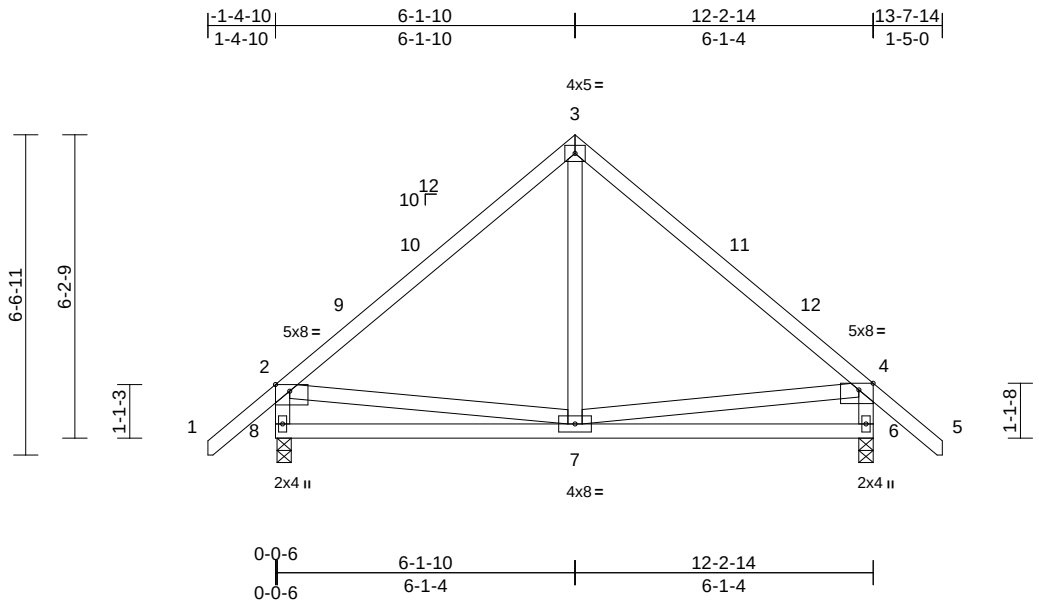

Scale = 1:47.2

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	0.79	Vert(LL)	0.00	7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 75 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 (lb/size) 6=477/0-3-8, 8=475/0-3-8
Max Horiz 8=198 (LC 12)
Max Uplift 6=-59 (LC 14), 8=-58 (LC 13)
Max Grav 6=569 (LC 2), 8=566 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/71, 2-3=-464/161, 3-4=-463/161, 4-5=0/73, 2-8=-516/271, 4-6=-518/273
BOT CHORD 7-8=-230/385, 6-7=-125/373
WEBS 3-7=0/167, 4-7=-112/243, 2-7=-128/251

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 6-1-10, Exterior (2) 6-1-10 to 9-1-10, Interior (1) 9-1-10 to 13-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) 8 and 6. 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	G3	Common Girder	1	2	I50198574 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:07 Page: 1
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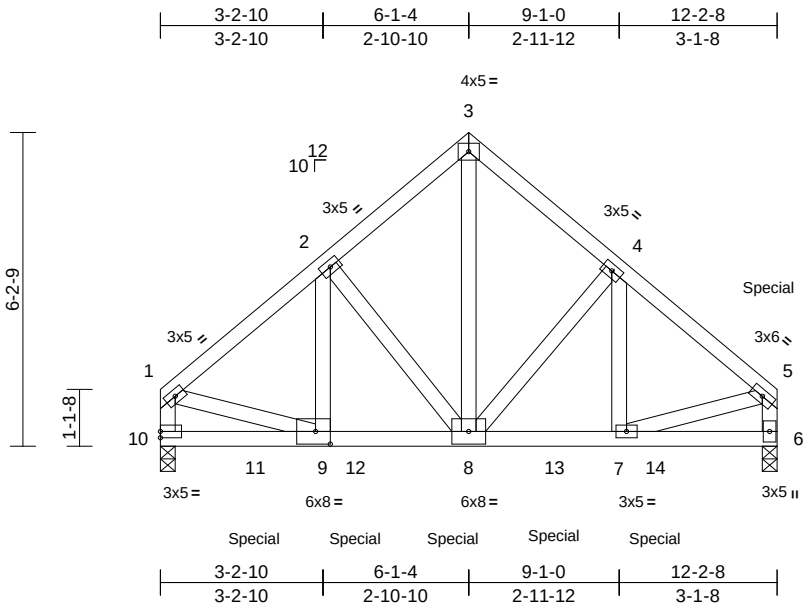

Scale = 1:45.6

Plate Offsets (X, Y): [9:0-3-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.03	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.07	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 166 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 (lb/size) 6=3455/0-3-8, 10=3133/0-3-8
Max Horiz 10=166 (LC 6)
Max Grav 6=3745 (LC 20), 10=3365 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-3394/0, 2-3=-2553/0, 3-4=-2555/0, 4-5=-3277/0, 1-10=-2897/0, 5-6=-3571/0
BOT CHORD 9-10=-59/417, 8-9=0/2638, 7-8=0/2484, 6-7=0/165
WEBS 1-9=0/2369, 5-7=0/2425, 2-9=0/1169, 2-8=-1028/0, 3-8=0/3029, 4-8=-866/0, 4-7=0/957

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-3-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
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) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 6. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1206 lb down at 1-10-8, 1193 lb down at 3-10-8, 1078 lb down at 5-9-12, and 1048 lb down at 7-9-12, and 1056 lb down at 9-9-12 on bottom 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=-48, 3-5=-48, 6-10=-20
Concentrated Loads (lb)
Vert: 5=-684 (F), 8=-1031 (F), 11=-1148 (F), 12=-1041 (F), 13=-967 (F), 14=-908 (F)

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	G4	Common Supported Gable	1	1	I50198575 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:07
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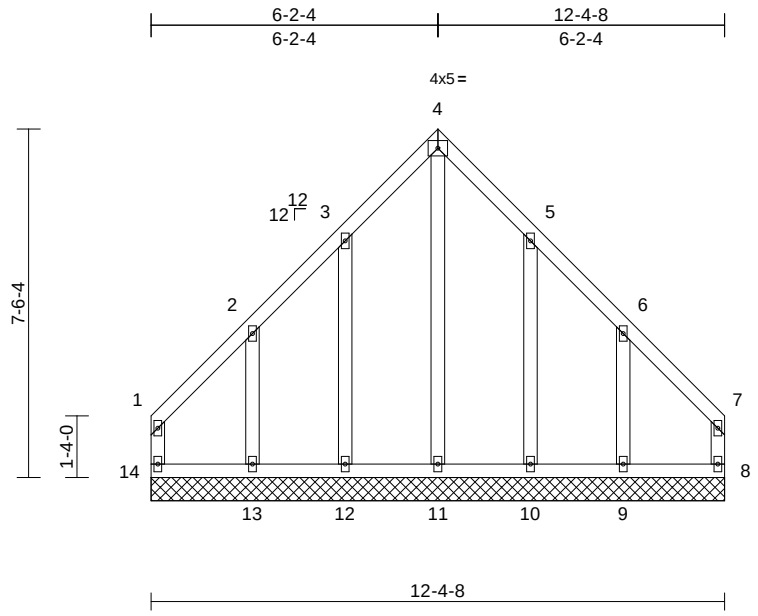

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 82 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 (lb/size) 8=72/12-4-8, 9=145/12-4-8, 10=138/12-4-8, 11=108/12-4-8, 12=138/12-4-8, 13=145/12-4-8, 14=72/12-4-8
Max Horiz 14=-202 (LC 9)
Max Uplift 8=-105 (LC 10), 9=-151 (LC 14), 10=-79 (LC 14), 12=-79 (LC 13), 13=-152 (LC 13), 14=-115 (LC 9)
Max Grav 8=168 (LC 24), 9=263 (LC 25), 10=178 (LC 25), 11=256 (LC 14), 12=177 (LC 24), 13=267 (LC 24), 14=175 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-14=-129/90, 1-2=-150/136, 2-3=-189/216, 3-4=-300/350, 4-5=-299/349, 5-6=-191/218, 6-7=-141/126, 7-8=-123/83
BOT CHORD	13-14=-101/108, 12-13=-101/108, 11-12=-101/108, 10-11=-101/108, 9-10=-101/108, 8-9=-101/108
WEBS	4-11=-399/278, 3-12=-197/165, 2-13=-247/223, 5-10=-197/165, 6-9=-246/222

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) 0-1-12 to 3-1-12, Exterior (2) 3-1-12 to 6-2-4, Corner (3) 6-2-4 to 9-2-4, Exterior (2) 9-2-4 to 12-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
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.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	G5	Common	2	1	I50198576 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:08 Page: 1
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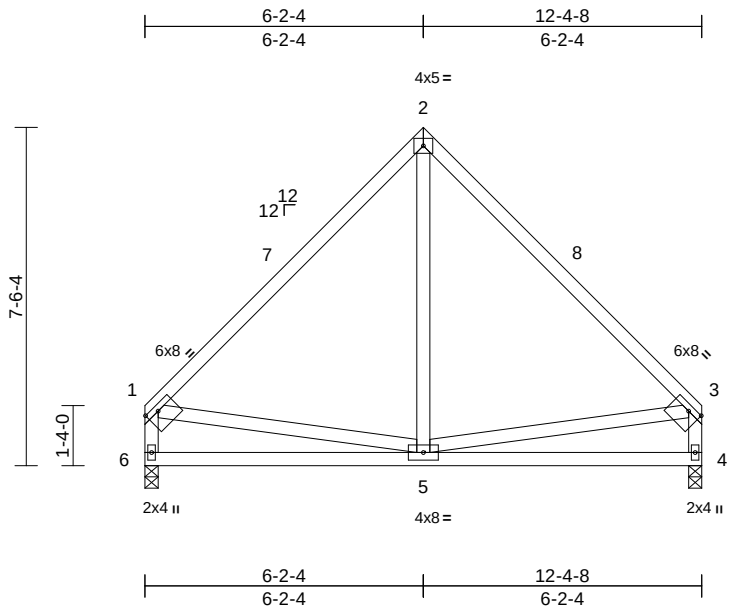


Scale = 1:51.2

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

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	0.61	Vert(LL)	0.00	5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 75 lb	FT = 20%

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

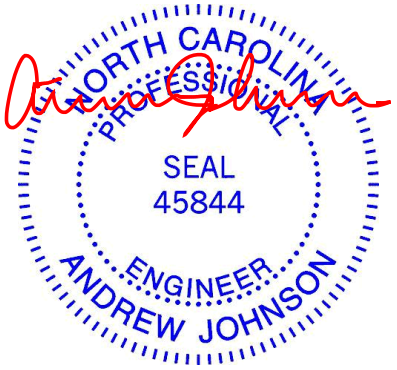
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=409/0-3-8, 6=409/0-3-8
Max Horiz 6=-202 (LC 11)
Max Uplift 4=-37 (LC 13), 6=-37 (LC 14)
Max Grav 4=483 (LC 2), 6=483 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-453/170, 2-3=-453/170, 1-6=-442/184, 3-4=-443/184
BOT CHORD 5-6=-244/300, 4-5=-134/207
WEBS 2-5=0/152, 1-5=-93/214, 3-5=-96/218

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 6-2-4, Exterior (2) 6-2-4 to 9-2-4, Interior (1) 9-2-4 to 12-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) * 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.
5) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 4. This connection is for uplift only and does not consider lateral forces.
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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	G6	Common Girder	1	**2**	I50198577 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:09 Page: 1
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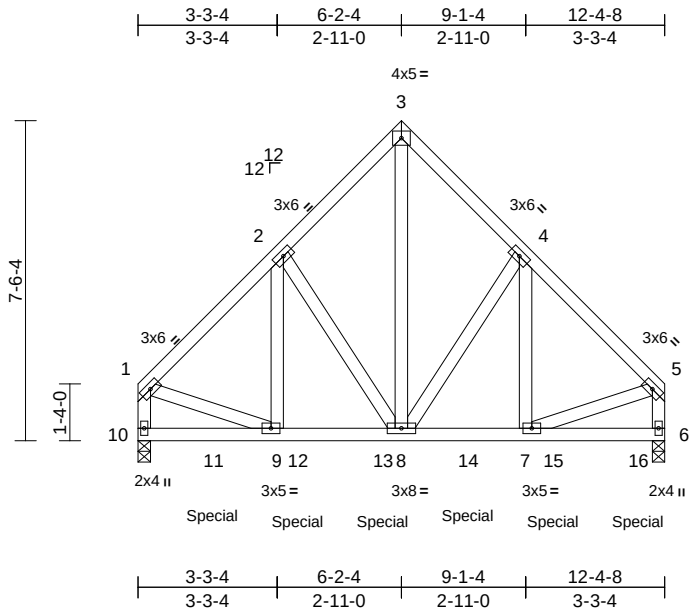

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.02	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.03	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 187 lb	FT = 20%

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

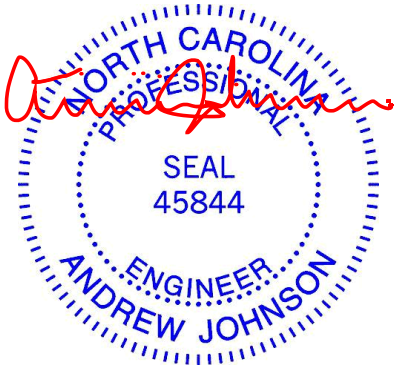
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 6=2121/0-3-8, 10=1816/0-3-8
Max Horiz 10=-202 (LC 5)
Max Uplift 6=-204 (LC 9), 10=-177 (LC 10)
Max Grav 6=2516 (LC 2), 10=2154 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1970/201, 2-3=-1505/230, 3-4=-1504/230, 4-5=-1972/200, 1-10=-1878/173, 5-6=-1873/172
BOT CHORD 9-10=-202/274, 8-9=-180/1402, 7-8=-87/1345, 6-7=-30/157
WEBS 1-9=-80/1284, 5-7=-81/1263, 2-9=-52/649, 2-8=-616/166, 3-8=-250/1859, 4-8=-619/165, 4-7=-53/653

NOTES
1) 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.
Bottom chords connected as follows: 2x4 - 1 row at 0-6-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
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) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 6. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 616 lb down and 52 lb up at 1-9-4, 616 lb down and 52 lb up at 3-9-4, 616 lb down and 52 lb up at 5-9-4, 616 lb down and 52 lb up at 7-9-4, and 616 lb down and 52 lb up at 9-9-4, and 622 lb down and 48 lb up at 11-9-4 on bottom 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=-48, 3-5=-48, 6-10=-20
Concentrated Loads (lb)
Vert: 11=-519 (B), 12=-519 (B), 13=-519 (B), 14=-519 (B), 15=-519 (B), 16=-524 (B)



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	H1	Common Supported Gable	1	1	I50198578 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:09

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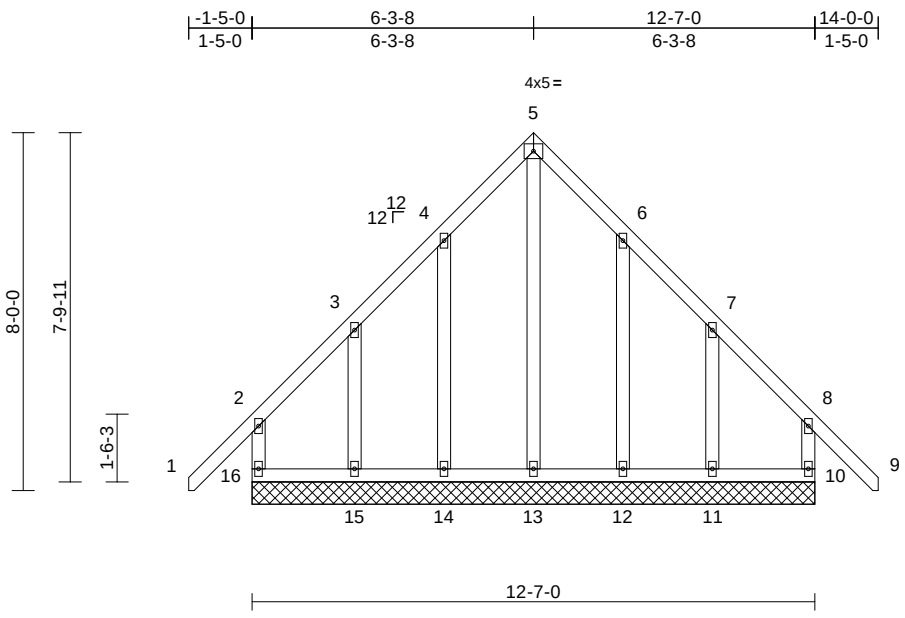


Scale = 1:51.5

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	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 91 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 6-0-0 oc bracing.

REACTIONS (lb/size) 10=146/12-7-0, 11=128/12-7-0, 12=143/12-7-0, 13=143/12-7-0, 14=143/12-7-0, 15=128/12-7-0, 16=146/12-7-0

Max Horiz 16=-252 (LC 11)

Max Uplift 10=-138 (LC 10), 11=-153 (LC 9), 12=-78 (LC 14), 14=-77 (LC 13), 15=-158 (LC 10), 16=-148 (LC 9)

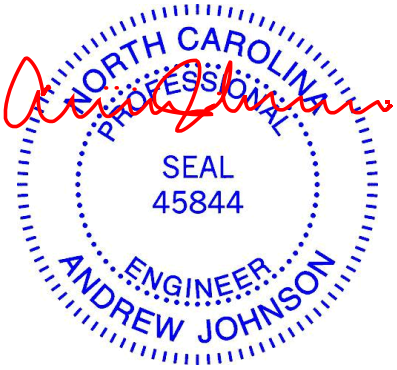
Max Grav 10=228 (LC 25), 11=256 (LC 26), 12=180 (LC 26), 13=297 (LC 14), 14=179 (LC 25), 15=260 (LC 25), 16=236 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-187/244, 1-2=0/80, 2-3=-148/168, 3-4=-195/273, 4-5=-304/408, 5-6=-304/407, 6-7=-194/275, 7-8=-137/158, 8-9=0/80, 8-10=-180/242
BOT CHORD	15-16=-129/126, 14-15=-129/126, 13-14=-129/126, 12-13=-129/126, 11-12=-129/126, 10-11=-129/126
WEBS	5-13=-480/284, 4-14=-196/173, 3-15=-239/202, 6-12=-196/173, 7-11=-241/202

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) -1-4-4 to 1-7-12, Exterior (2) 1-7-12 to 6-3-8, Corner (3) 6-3-8 to 9-3-8, Exterior (2) 9-3-8 to 13-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
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.

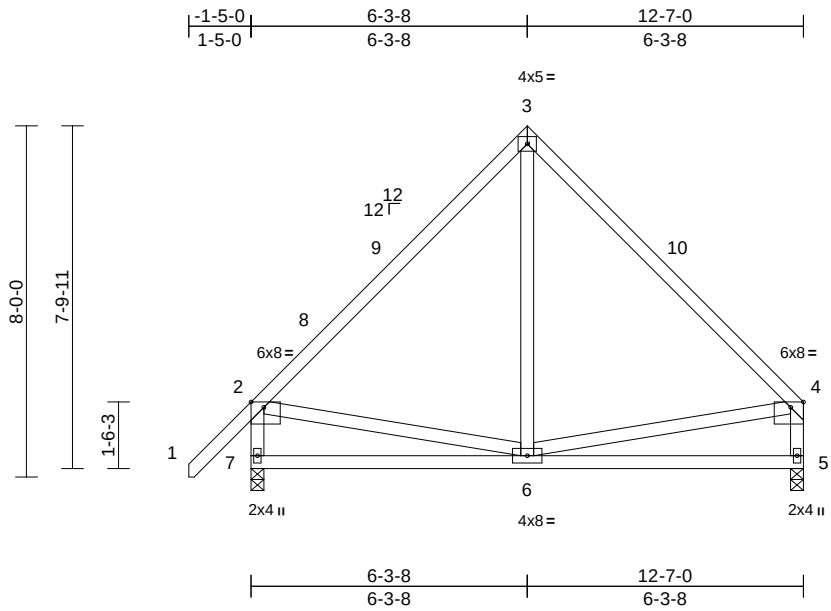


February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	H2	Common	3	1	I50198579 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:10 Page: 1
ID:5RQTJsCeEvWWW?Tb6iJ5RJztJis-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:52.5

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	0.90	Vert(LL)	0.00	6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 80 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 (lb/size) 5=412/0-3-8, 7=492/0-3-8
Max Horiz 7=239 (LC 10)
Max Uplift 5=-39 (LC 13), 7=-50 (LC 13)
Max Grav 5=486 (LC 2), 7=587 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/80, 2-3=-456/183, 3-4=-446/173, 2-7=-533/278, 4-5=-448/187
BOT CHORD 6-7=-295/333, 5-6=-127/192
WEBS 3-6=0/167, 2-6=-139/263, 4-6=-88/214

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-4 to 1-7-12, Interior (1) 1-7-12 to 6-3-8, Exterior (2) 6-3-8 to 9-3-8, Interior (1) 9-3-8 to 12-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) 7 and 5. 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	H3	Common Girder	1	2	I50198580 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:10 Page: 1
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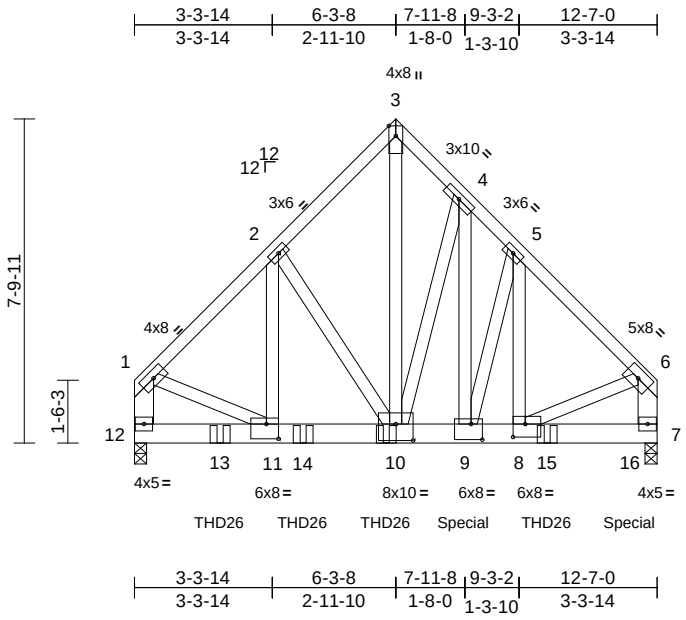


Scale = 1:55.5

Plate Offsets (X, Y): [8:0-3-8,0-3-12], [9:0-3-4,0-4-8], [10:0-5-0,0-4-12], [11:0-3-8,0-4-4]

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	0.32	Vert(LL)	-0.05	9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.10	9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.94	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 247 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 12-1,7-6:2x6 SP No.2, 10-3:2x4 SP 2400F 2.0E

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

REACTIONS (lb/size) 7=7072/0-3-8, 12=6321/0-3-8
Max Horiz 12=210 (LC 6)
Max Grav 7=7693 (LC 21), 12=6507 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5936/0, 2-3=-5388/0, 3-4=-5304/0, 4-5=-6453/0, 5-6=-6594/0, 1-12=-5847/0, 6-7=-6503/0
BOT CHORD 11-12=-195/507, 10-11=0/4223, 9-10=0/4572, 8-9=0/4620, 7-8=0/388
WEBS 1-11=0/4114, 6-8=0/4594, 2-11=0/885, 2-10=-676/0, 3-10=0/7308, 4-10=-2793/244, 5-8=0/191, 4-9=-223/3532, 5-9=-283/32

NOTES
1) 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 0-2-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
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) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 7. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Use MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 3-10-8 oc max. starting at 2-0-12 from the left end to 9-11-4 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 5716 lb down and 199 lb up at 7-11-4, and 963 lb down at 11-11-4 on bottom 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=-48, 3-6=-48, 7-12=-20
Concentrated Loads (lb)
Vert: 10=-2131 (B), 9=-5230 (B), 13=-1615 (B), 14=-2042 (B), 15=-775 (B), 16=-779 (B)

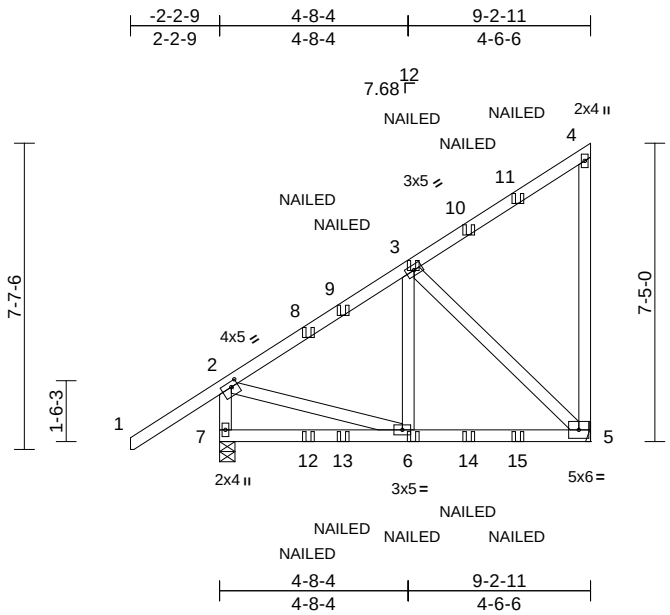
February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	HJ1	Roof Special Girder	1	1	I50198581 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:11 Page: 1

ID:zH1nyiKR4Ymp0XsVl39hLUztL1v-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57.3

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

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	0.57	Vert(LL)	0.03	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.04	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 67 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 7-2:2x4 SP No.2

BRACING

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

REACTIONS (lb/size) 5=355/ Mechanical, 7=428/0-4-9
Max Horiz 7=309 (LC 6)
Max Uplift 5=-412 (LC 6), 7=-271 (LC 5)
Max Grav 5=609 (LC 21), 7=647 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/94, 2-3=-577/320, 3-4=-241/173, 4-5=-191/148, 2-7=-592/246
BOT CHORD 6-7=-301/202, 5-6=-323/393
WEBS 2-6=-264/463, 3-5=-501/372, 3-6=-104/180

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 412 lb uplift at joint 5.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) 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: 1-2=-48, 2-4=-48, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-3 (B), 8=33 (B), 10=-28 (F), 11=-33 (B), 12=-1 (B), 14=-17 (F), 15=-19 (B)

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	HJ2	Diagonal Hip Girder	1	1	I50198582 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:12 Page: 1
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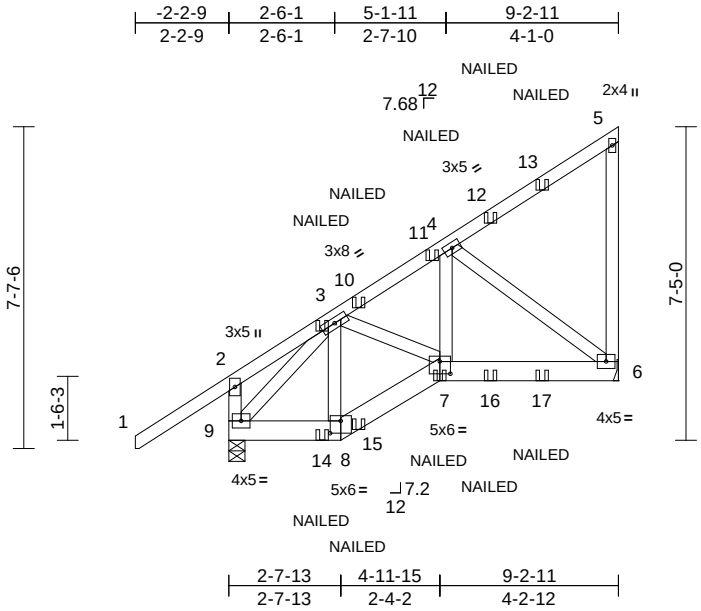

Scale = 1:54.5

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

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	0.57	Vert(LL)	0.02	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.02	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.29	Horz(CT)	-0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 75 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 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 (lb/size) 6=410/ Mechanical, 9=453/0-4-9
Max Horiz 9=283 (LC 6)
Max Uplift 6=-401 (LC 6), 9=-260 (LC 5)
Max Grav 6=659 (LC 21), 9=657 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-9=-250/115, 1-2=0/94, 2-3=-62/84, 3-4=-670/381, 4-5=-216/142, 5-6=-137/78
BOT CHORD 8-9=-319/364, 7-8=-368/433, 6-7=-385/533
WEBS 3-9=-614/320, 3-8=-149/149, 3-7=-98/220, 4-7=-249/340, 4-6=-636/422

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 401 lb uplift at joint 6.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) 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: 1-2=-48, 2-5=-48, 8-9=-20, 7-8=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 7=-23 (F), 3=33 (F), 10=-2 (B), 12=-60 (B), 14=-1 (F), 15=0 (B), 17=-94 (F)

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	HJ3	Diagonal Hip Girder	2	1	I50198583 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:12 Page: 1
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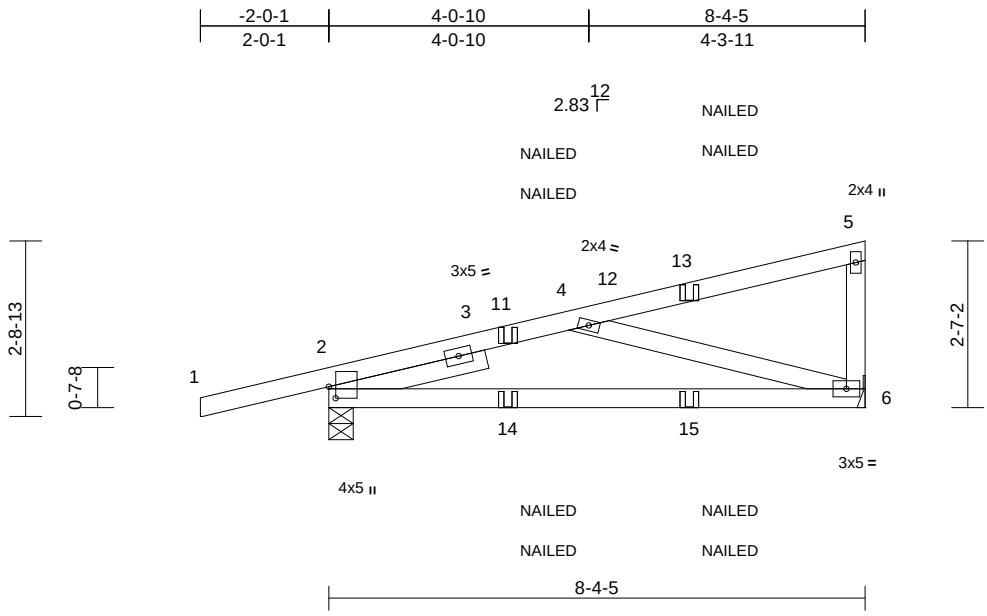

Scale = 1:35.9

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

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	0.39	Vert(LL)	0.03	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.11	6-9	>872	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.01	6	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
SLIDER Left 2x4 SP No.3 -- 2-6-0

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 (lb/size) 2=402/0-4-9, 6=304/ Mechanical
Max Horiz 2=97 (LC 10)
Max Uplift 2=-137 (LC 7), 6=-52 (LC 11)
Max Grav 2=480 (LC 2), 6=350 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-4=-592/128, 4-5=-65/21, 5-6=-118/52
BOT CHORD 2-6=-154/592
WEBS 4-6=-613/146

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 52 lb uplift at joint 6.
8) 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.
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.
10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) 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: 1-5=-48, 6-7=-20
Concentrated Loads (lb)
Vert: 13=-30 (F=-15, B=-15), 14=-1 (F=-1, B=-1), 15=-25 (F=-12, B=-12)

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	HJ4	Diagonal Hip Girder	1	1	I50198584 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:13 Page: 1
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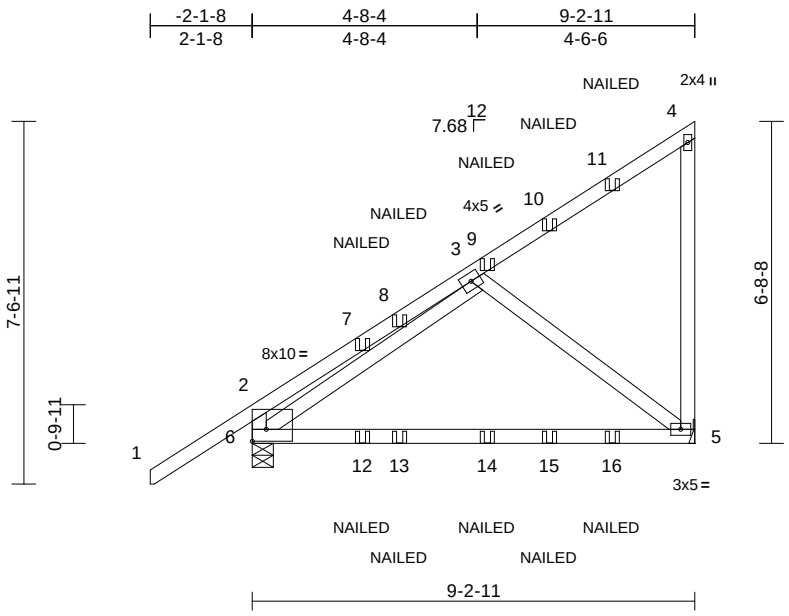


Scale = 1:48

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.14	5-6	>791	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.41	5-6	>261	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 59 lb	FT = 20%

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

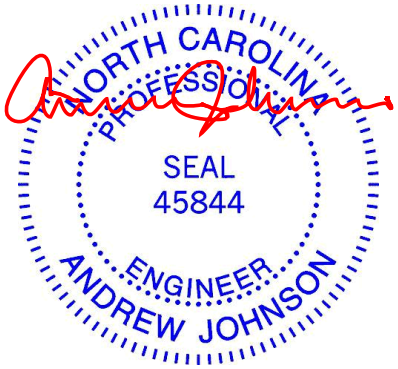
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=362/ Mechanical, 6=427/0-5-4
Max Horiz 6=280 (LC 6)
Max Uplift 5=-276 (LC 6), 6=-163 (LC 9)
Max Grav 5=569 (LC 21), 6=585 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-351/104, 1-2=0/91, 2-3=-362/83, 3-4=-273/188, 4-5=-191/155
BOT CHORD 5-6=-270/346
WEBS 3-5=-379/276, 3-6=-215/305

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 276 lb uplift at joint 5.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) 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: 1-2=-48, 2-4=-48, 5-6=-20
Concentrated Loads (lb)
Vert: 7=31 (F), 10=-24 (B), 11=-34 (F), 12=-1 (F), 13=-1 (B), 14=-3 (F), 15=-25 (B), 16=-20 (F)



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	HJ5	Diagonal Hip Girder	1	1	I50198585 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:14
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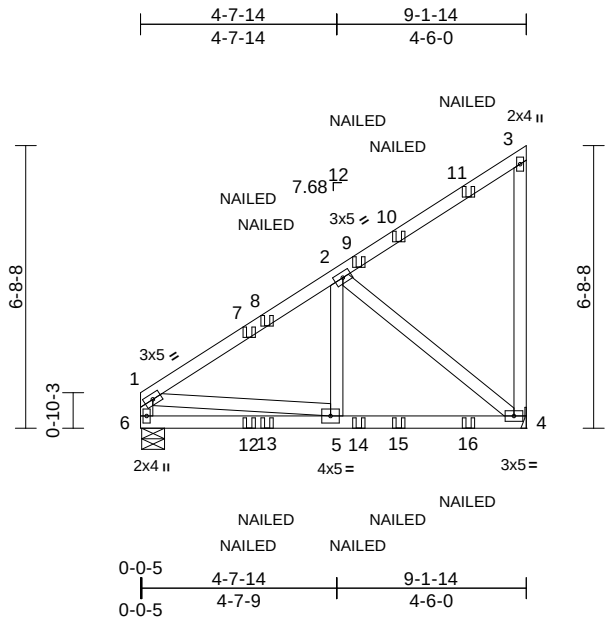

Scale = 1:54.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	0.02	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.03	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 59 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 (lb/size) 4=383/ Mechanical, 6=308/0-6-8
Max Horiz 6=255 (LC 6)
Max Uplift 4=-305 (LC 6), 6=-143 (LC 5)
Max Grav 4=596 (LC 20), 6=484 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-438/143, 1-2=-611/253, 2-3=-256/197, 3-4=-205/169
BOT CHORD 5-6=-252/213, 4-5=-256/430
WEBS 2-4=-514/272, 2-5=0/144, 1-5=-211/387

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 305 lb uplift at joint 4.
6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
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.
8) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) 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=-48, 4-6=-20
Concentrated Loads (lb)
Vert: 7=26 (B), 10=-31 (F), 11=-42 (B), 12=-1 (B), 14=-6 (B), 15=-14 (F), 16=-23 (B)

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	I1	Monopitch Supported Gable	1	1	I50198586 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:14 Page: 1
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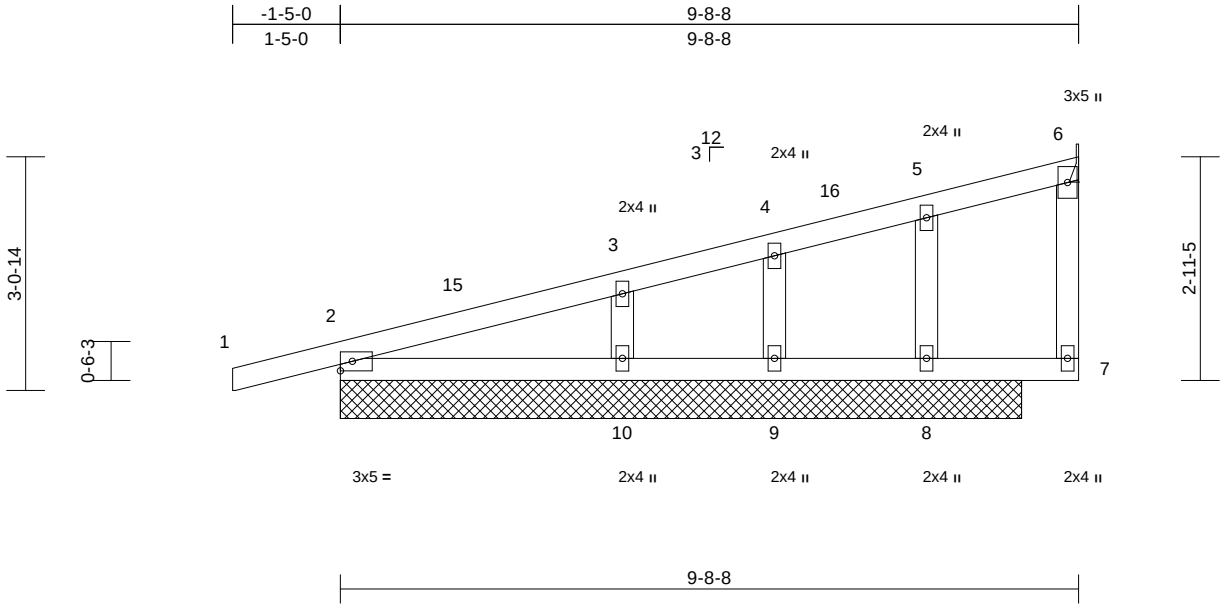

Scale = 1:30.3

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	0.01	10-13	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	10-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 41 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 (lb/size) 2=181/8-11-8, 6=50/ Mechanical, 8=145/8-11-8, 9=94/8-11-8, 10=222/8-11-8, 11=181/8-11-8
Max Horiz 2=107 (LC 14), 11=107 (LC 14)
Max Uplift 2=-72 (LC 11), 6=-8 (LC 12), 8=-29 (LC 15), 9=-25 (LC 11), 10=-50 (LC 15), 11=-72 (LC 11)
Max Grav 2=220 (LC 2), 6=59 (LC 2), 8=171 (LC 22), 9=112 (LC 2), 10=261 (LC 2), 11=220 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-239/123, 3-4=-140/82, 4-5=-112/76, 5-6=-60/65, 6-7=0/22
BOT CHORD 2-10=-121/79, 9-10=-54/71, 8-9=-54/71, 7-8=-54/71
WEBS 5-8=-127/203, 4-9=-90/95, 3-10=-185/184

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) -1-4-13 to 1-7-3, Exterior (2) 1-7-3 to 9-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable studs spaced at 2-0-0 oc.
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 8 lb uplift at joint 6.
10) N/A
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	I2	Monopitch	5	1	I50198587 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:15 Page: 1
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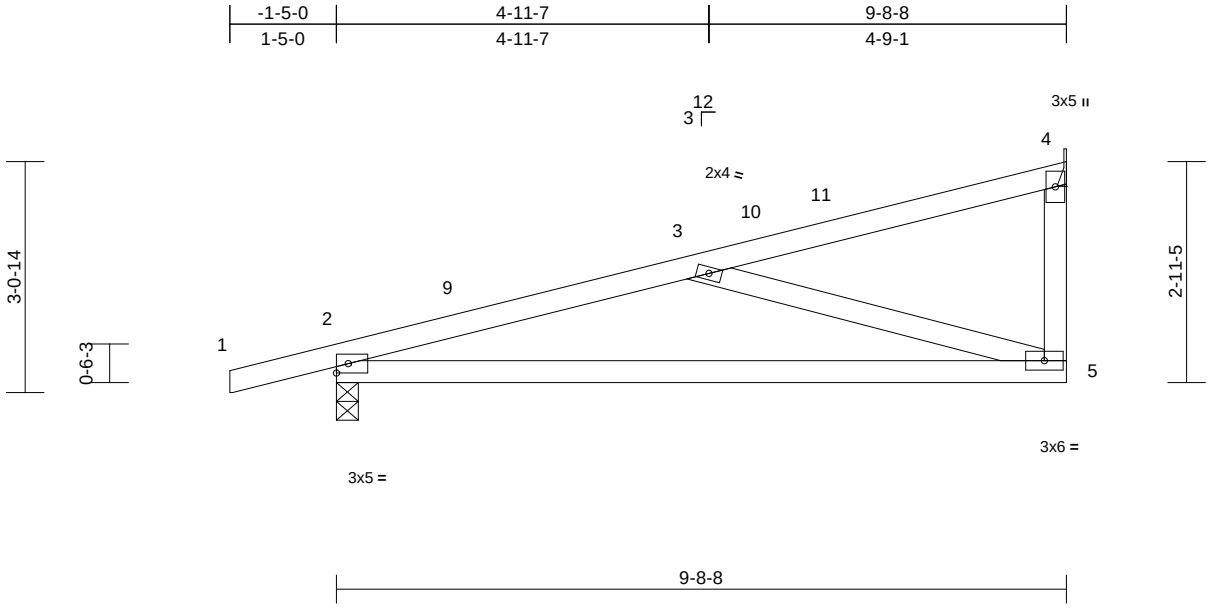

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	0.02	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.21	5-8	>549	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-6-2 oc bracing.

REACTIONS (lb/size) 2=395/0-3-8, 4=319/ Mechanical
Max Horiz 2=111 (LC 14)
Max Uplift 2=-113 (LC 11), 4=-61 (LC 15)
Max Grav 2=473 (LC 2), 4=376 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-695/243, 3-4=-109/41, 4-5=-37/258
BOT CHORD 2-5=-351/657
WEBS 3-5=-637/322

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-13 to 1-7-3, Interior (1) 1-7-3 to 9-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 61 lb uplift at joint 4.
8) 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.
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.
10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	I3	Monopitch Girder	1	2	I50198588
					Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:15 Page: 1
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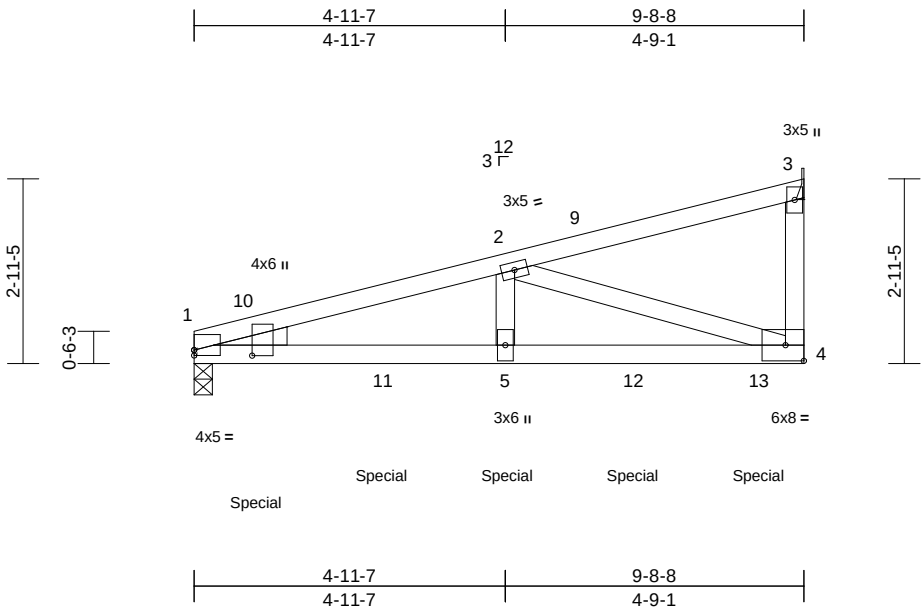

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Plate Offsets (X, Y): [1:Edge,0-1-0], [1:0-1-1,0-11-1]

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	0.44	Vert(LL)	-0.06	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.13	4-5	>896	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.01	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 86 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 3-4:2x4 SP No.1
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=1801/0-3-8, 3=1942/ Mechanical
Max Horiz 1=105 (LC 10)
Max Uplift 1=-205 (LC 7), 3=-227 (LC 11)
Max Grav 1=2135 (LC 2), 3=2303 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4190/411, 2-3=-185/31, 3-4=-182/2198
BOT CHORD 1-5=-400/4065, 4-5=-400/4065
WEBS 2-4=-4122/432, 2-5=-106/1900

NOTES
1) 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.
Bottom chords connected as follows: 2x4 - 1 row at 0-6-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 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 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 227 lb uplift at joint 3.
9) 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.
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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 733 lb down and 64 lb up at 1-0-0, 733 lb down and 64 lb up at 3-0-0, 733 lb down and 64 lb up at 5-0-0, and 733 lb down and 64 lb up at 7-0-0, and 741 lb down and 61 lb up at 9-0-0 on bottom 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=-48, 4-6=-20
Concentrated Loads (lb)
Vert: 5=-618 (F), 10=-618 (F), 11=-618 (F), 12=-618 (F), 13=-625 (F)

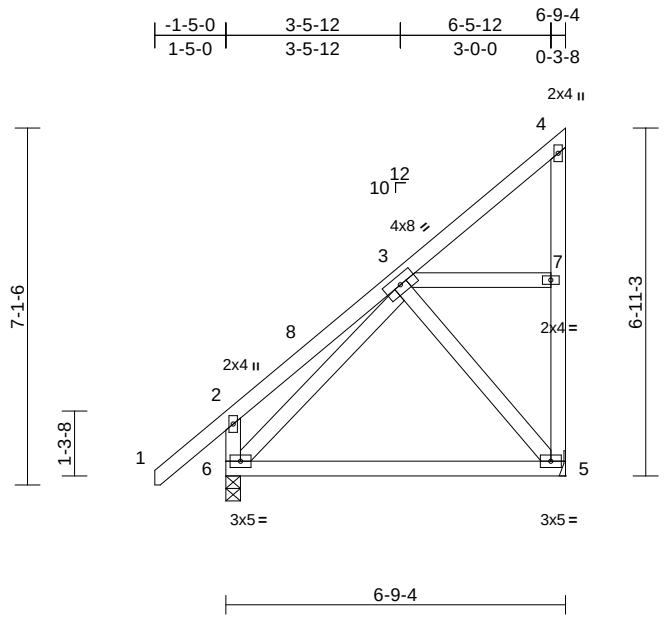
February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	K1	Monopitch	2	1	I50198589 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:16 ID:LCSHodvmXRSmcIOG7lmERLztJaB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:45.9

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.11	5-6	>736	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 55 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 (lb/size) 5=211/ Mechanical, 6=300/0-3-8
Max Horiz 6=284 (LC 10)
Max Uplift 5=-136 (LC 10), 6=-14 (LC 13)
Max Grav 5=315 (LC 25), 6=364 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-191/234, 3-4=-114/112, 5-7=-139/103, 4-7=-143/107, 2-6=-299/328
BOT CHORD 5-6=-268/318
WEBS 3-6=-419/344, 3-5=-415/345, 3-7=-195/211

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 6-7-8 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 5.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
8) 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

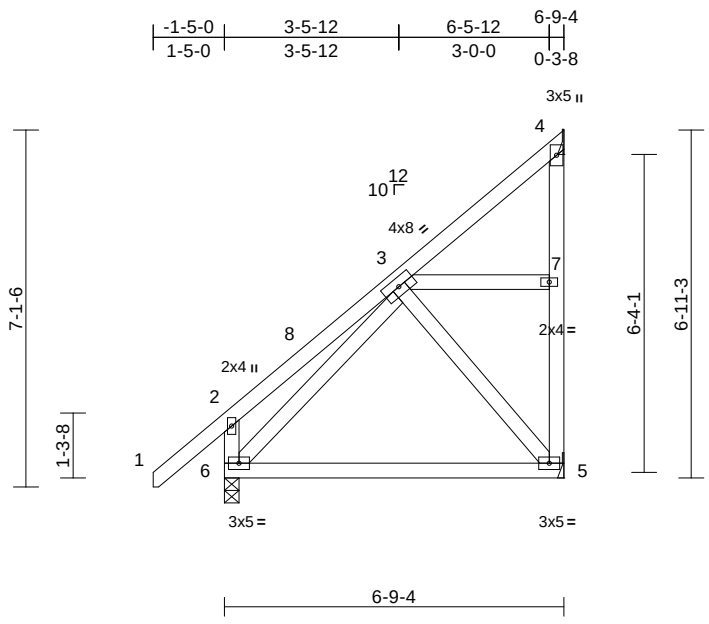
February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	K2	Monopitch	2	1	I50198590 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:16 ID:MlW7xGK5XtkxhW?o7uNCpWztJZf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.11	5-6	>736	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 55 lb	FT = 20%

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

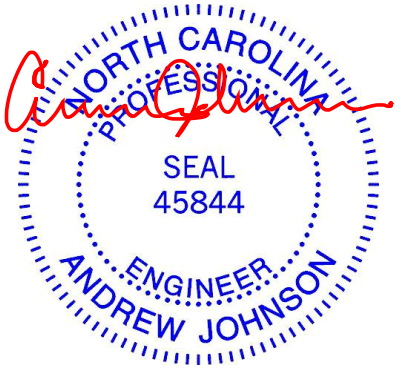
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=60/ Mechanical, 5=151/ Mechanical, 6=300/0-3-8
Max Horiz 6=284 (LC 10)
Max Uplift 4=-48 (LC 13), 5=-89 (LC 10), 6=-14 (LC 13)
Max Grav 4=92 (LC 25), 5=223 (LC 25), 6=364 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-192/234, 3-4=-114/112, 5-7=-2/3, 4-7=-4/3, 2-6=-299/328
BOT CHORD 5-6=-268/318
WEBS 3-6=-419/345, 3-5=-414/345, 3-7=-195/212

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -1-4-6 to 1-7-10, Interior (1) 1-7-10 to 6-7-8 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 4 and 89 lb uplift at joint 5.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	K3	Monopitch	1	1	I50198591 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:17

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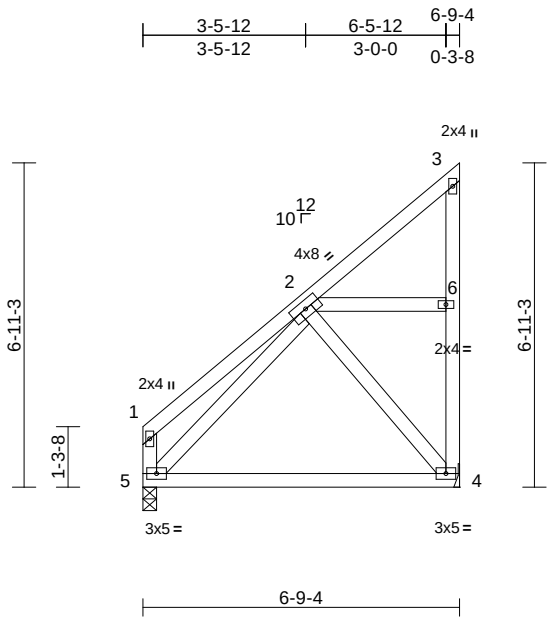

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.11	4-5	>736	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 52 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.

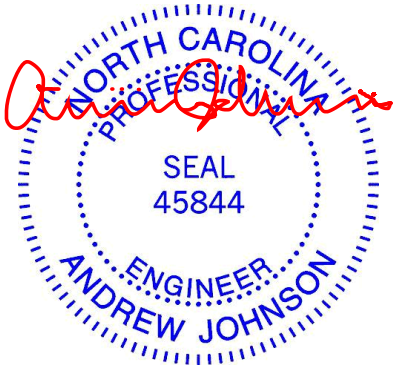
REACTIONS (lb/size) 4=219/ Mechanical, 5=219/0-3-8
Max Horiz 5=261 (LC 10)
Max Uplift 4=-135 (LC 10)
Max Grav 4=325 (LC 24), 5=301 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-105/117, 2-3=-111/107, 4-6=-131/98, 3-6=-136/102, 1-5=-141/109
BOT CHORD 4-5=-273/330
WEBS 2-5=-335/257, 2-4=-433/353, 2-6=-195/212

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-4-10, Interior (1) 3-4-10 to 6-7-8 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 135 lb uplift at joint 4.
6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. 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



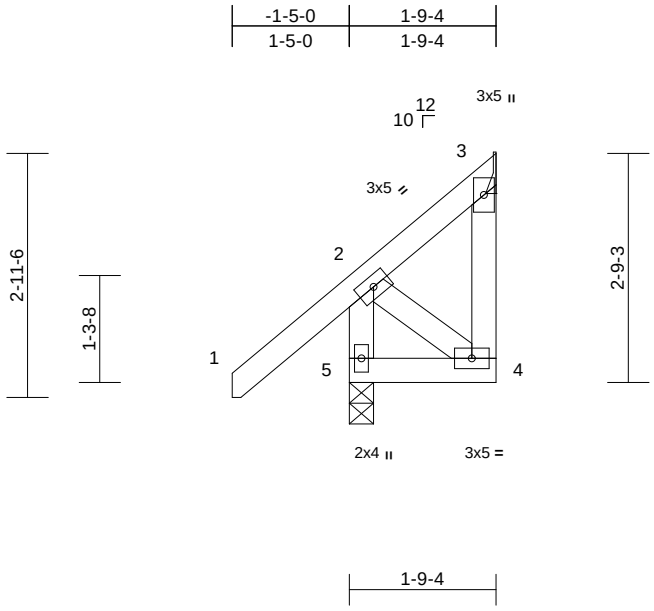
February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	K4	Monopitch	6	1	I50198592 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:17 ID:M01ZV4XlX6tXD8o3czBC?6ztJZO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.8

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	0.25	Vert(LL)	0.00	4	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	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
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=13/ Mechanical, 5=159/0-3-8
Max Horiz 5=138 (LC 12)
Max Uplift 3=-73 (LC 10), 5=-36 (LC 9)
Max Grav 3=67 (LC 9), 5=202 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-78/101, 3-4=-114/135, 2-5=-187/198
BOT CHORD 4-5=-208/209
WEBS 2-4=-205/209

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
4) * 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 3.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
8) 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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	PB1	Piggyback	1	1	I50198593 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:17 Page: 1
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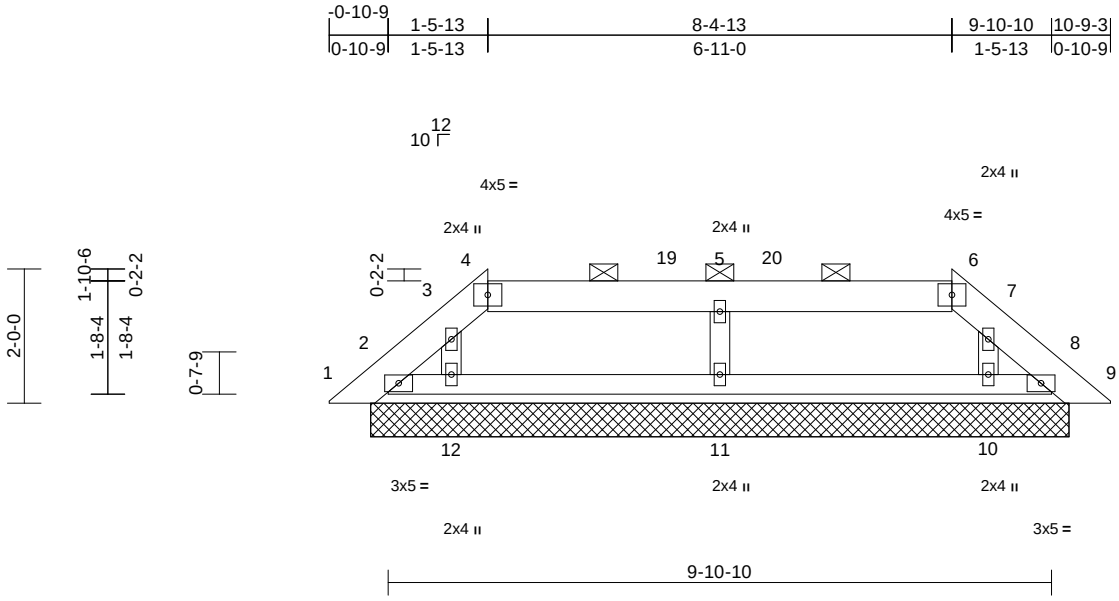

Scale = 1:34.3

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 49 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
OTHERS 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.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=37/10-4-14, 2=30/10-4-14, 8=23/10-4-14, 9=37/10-4-14, 10=185/10-4-14, 11=328/10-4-14, 12=186/10-4-14, 13=30/10-4-14, 16=23/10-4-14
Max Horiz 1=-42 (LC 13)
Max Uplift 1=-24 (LC 11), 2=-38 (LC 15), 8=-35 (LC 16), 11=-50 (LC 12), 12=-11 (LC 12), 13=-38 (LC 15), 16=-35 (LC 16)
Max Grav 1=54 (LC 47), 2=81 (LC 46), 8=71 (LC 38), 9=43 (LC 37), 10=212 (LC 37), 11=484 (LC 37), 12=214 (LC 37), 13=81 (LC 46), 16=71 (LC 38)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-59/56, 2-3=-79/55, 3-4=-154/114, 4-5=-90/84, 5-6=-90/84, 6-7=-154/114, 7-8=-79/55, 8-9=-26/15
BOT CHORD 2-12=-26/89, 11-12=-26/89, 10-11=-26/89, 8-10=-26/89
WEBS 5-11=-400/200, 3-12=-144/122, 7-10=-143/123

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-4-8 to 6-7-11, Interior (1) 6-7-11 to 9-3-13, Exterior (2) 9-3-13 to 11-4-1 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=1.33
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); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
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) N/A
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.
14) 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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	PB2	Piggyback	1	1	I50198594 Job Reference (optional)

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

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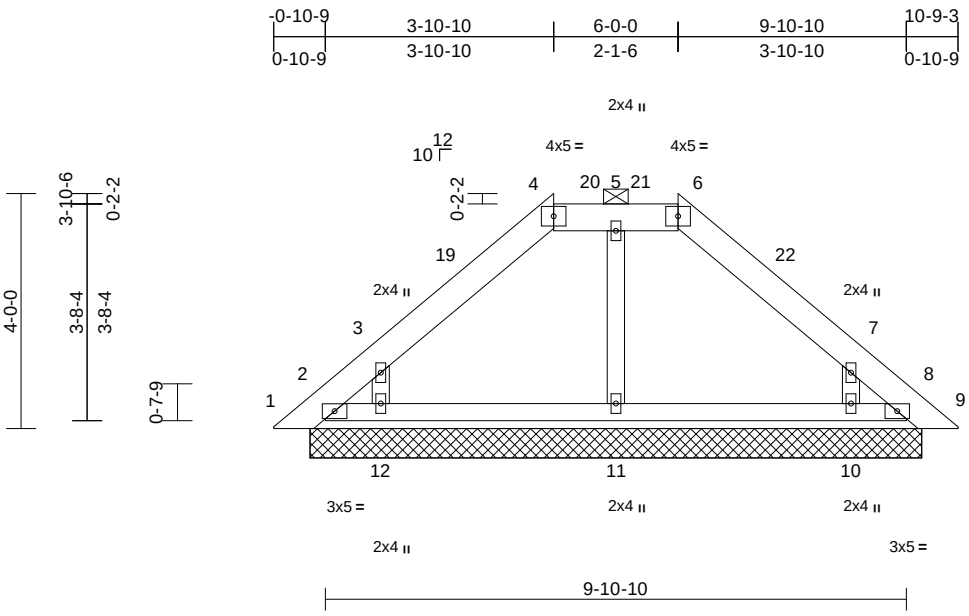

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 55 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
OTHERS 2x4 SP No.3

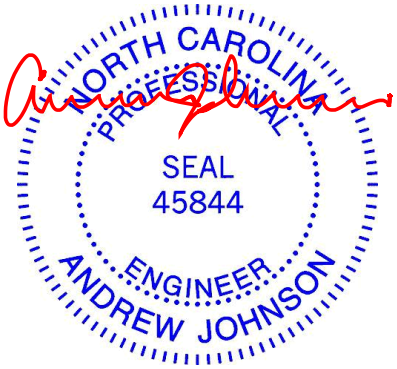
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=38/10-4-14, 2=44/10-4-14, 8=36/10-4-14, 9=39/10-4-14, 10=208/10-4-14, 11=204/10-4-14, 12=209/10-4-14, 13=44/10-4-14, 16=36/10-4-14
Max Horiz 1=-95 (LC 13)
Max Uplift 1=-49 (LC 11), 2=-1 (LC 11), 8=-55 (LC 14), 10=-106 (LC 16), 12=-105 (LC 15), 13=-1 (LC 11), 16=-55 (LC 14)
Max Grav 1=91 (LC 48), 2=73 (LC 38), 8=82 (LC 46), 9=56 (LC 38), 10=370 (LC 48), 11=240 (LC 37), 12=371 (LC 46), 13=73 (LC 38), 16=82 (LC 46)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-123/114, 2-3=-144/79, 3-4=-245/143, 4-5=-158/154, 5-6=-158/154, 6-7=-245/141, 7-8=-127/55, 8-9=-32/13
BOT CHORD 2-12=-28/114, 11-12=-27/113, 10-11=-27/113, 8-10=-27/114
WEBS 5-11=-156/55, 3-12=-297/223, 7-10=-294/223

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-4-8 to 3-4-8, Interior (1) 3-4-8 to 4-9-10, Exterior (2) 4-9-10 to 11-4-1 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=1.33
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); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
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) N/A
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.
14) 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



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof	
22010064-A	PB3	Piggyback	1	3	Job Reference (optional)	I50198595

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:18
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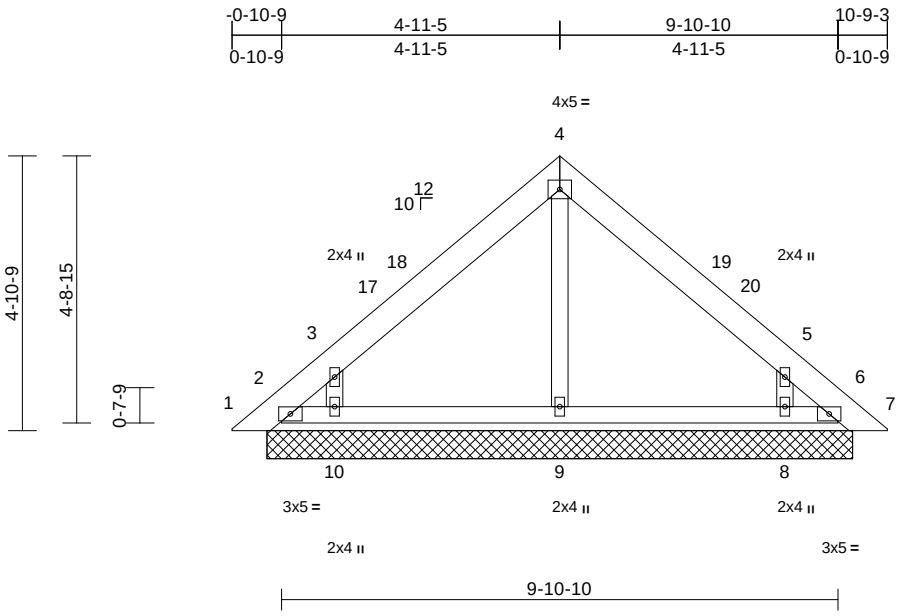
Page: 1



Scale = 1:40.9

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.01	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 174 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
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 (lb/size) 1=37/10-4-14, 2=-13/10-4-14, 6=-20/10-4-14, 7=37/10-4-14, 8=260/10-4-14, 9=194/10-4-14, 10=262/10-4-14, 11=-13/10-4-14, 14=-20/10-4-14
Max Horiz 1=120 (LC 12)
Max Uplift 1=-68 (LC 9), 2=-34 (LC 29), 6=-78 (LC 12), 8=-159 (LC 14), 10=-157 (LC 13), 11=-34 (LC 29), 14=-78 (LC 12)
Max Grav 1=100 (LC 12), 2=54 (LC 14), 6=77 (LC 14), 7=43 (LC 2), 8=362 (LC 26), 9=222 (LC 2), 10=362 (LC 25), 11=54 (LC 14), 14=77 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-155/145, 2-3=-138/113, 3-4=-160/119, 4-5=-149/120, 5-6=-118/88, 6-7=-25/11
BOT CHORD 2-10=-35/76, 9-10=-35/76, 8-9=-35/76, 6-8=-35/76
WEBS 4-9=-138/13, 3-10=-367/297, 5-8=-366/297

NOTES
1) 3-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-4-8 to 3-4-8, Interior (1) 3-4-8 to 5-10-5, Exterior (2) 5-10-5 to 8-10-5, Interior (1) 8-10-5 to 11-4-1 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=1.33
5) 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.
6) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
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) N/A
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	PB4	Piggyback	1	1	I50198596 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:20 Page: 1
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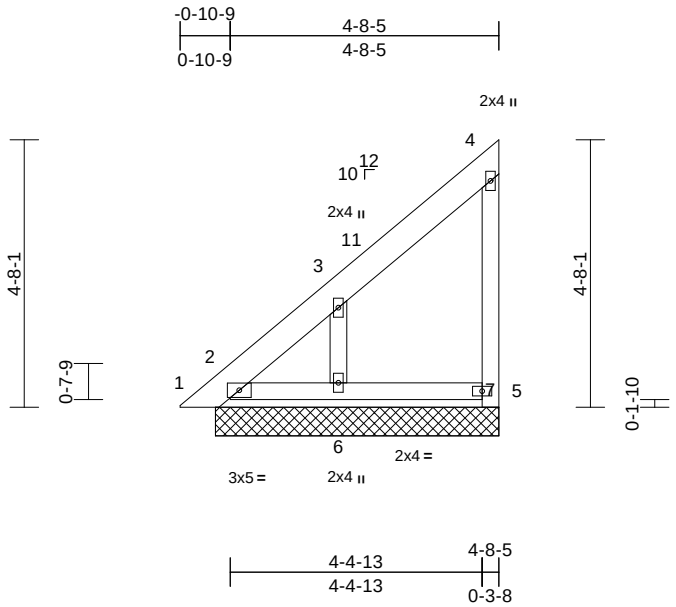

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	-0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 32 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-7-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=3/4-11-7, 2=90/4-11-7, 5=74/4-11-7, 6=189/4-11-7, 7=0/4-11-7, 8=90/4-11-7
Max Horiz 1=173 (LC 12)
Max Uplift 1=-73 (LC 11), 2=-33 (LC 10), 5=-46 (LC 10), 6=-102 (LC 13), 8=-33 (LC 10)
Max Grav 1=131 (LC 10), 2=122 (LC 25), 5=108 (LC 25), 6=253 (LC 25), 8=122 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-435/446, 2-3=-290/297, 3-4=-157/161, 5-7=0/0, 4-5=-167/133
BOT CHORD 2-6=-110/120, 5-6=-111/120
WEBS 3-6=-262/210

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-4-8 to 3-4-8, Interior (1) 3-4-8 to 5-5-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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) Bearing at joint(s) 1, 7, 2, 5, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) N/A
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.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	PB5	Piggyback	1	1	I50198597 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:21 Page: 1

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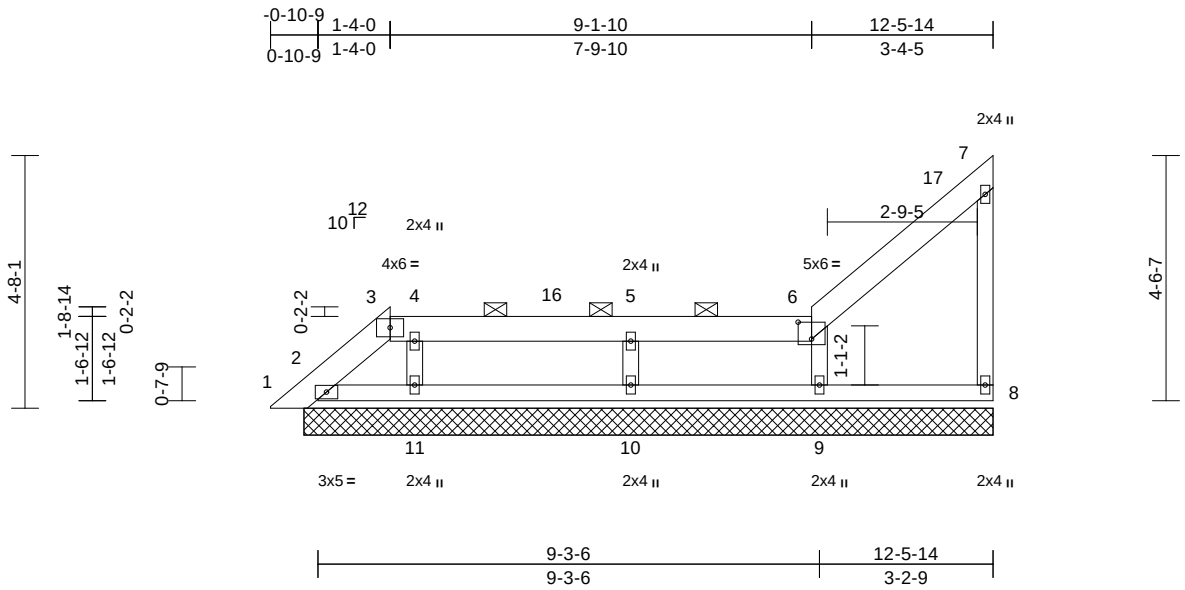

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Plate Offsets (X, Y): [6:0-3-0,0-3-12]

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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 64 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
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, and 2-0-0 oc purlins (6-0-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=66/12-9-0, 2=0/12-9-0, 8=93/12-9-0, 9=237/12-9-0, 10=309/12-9-0, 11=256/12-9-0, 15=0/12-9-0
Max Horiz 1=169 (LC 12)
Max Uplift 1=-10 (LC 11), 8=-59 (LC 12), 9=-34 (LC 15), 10=-64 (LC 11), 11=-92 (LC 15)
Max Grav 1=156 (LC 48), 8=179 (LC 46), 9=287 (LC 38), 10=474 (LC 37), 11=331 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-350/327, 2-3=-271/261, 3-4=-181/173, 4-5=-190/182, 5-6=-190/182, 6-7=-166/178, 7-8=-192/152
BOT CHORD 2-11=-96/141, 10-11=-65/91, 9-10=-65/91, 8-9=-80/104
WEBS 5-10=-396/203, 4-11=-297/314, 6-9=-219/165

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) 0-4-8 to 5-3-0, Exterior (2) 5-3-0 to 13-3-2 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=1.33
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); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
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) N/A
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
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

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	PB7	Piggyback	1	1	I50198598 Job Reference (optional)

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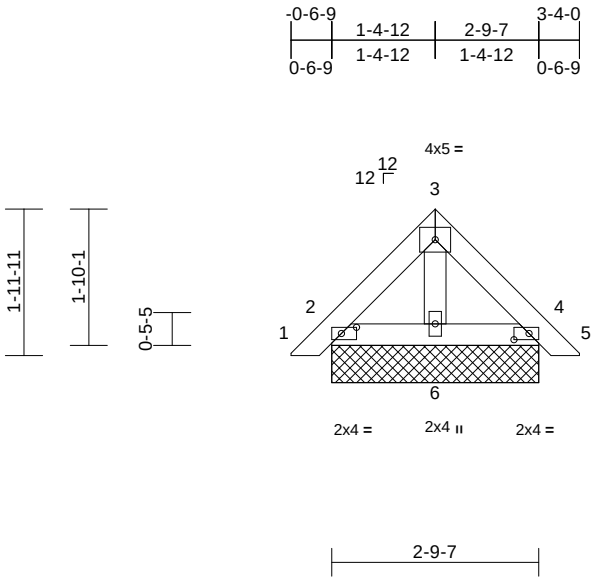

Scale = 1:31

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

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	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
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=74/2-9-7, 4=74/2-9-7, 6=75/2-9-7, 7=74/2-9-7, 10=74/2-9-7
Max Horiz 2=-46 (LC 11), 7=-46 (LC 11)
Max Uplift 2=-12 (LC 13), 4=-16 (LC 14), 6=-2 (LC 13), 7=-12 (LC 13), 10=-16 (LC 14)
Max Grav 2=90 (LC 2), 4=90 (LC 2), 6=87 (LC 2), 7=90 (LC 2), 10=90 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-3=-53/42, 3-4=-51/43, 4-5=0/19
BOT CHORD 2-6=-22/52, 4-6=-22/52
WEBS 3-6=-32/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 1-4-0 oc.
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) N/A
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	PB8	Piggyback	9	1	I50198599 Job Reference (optional)

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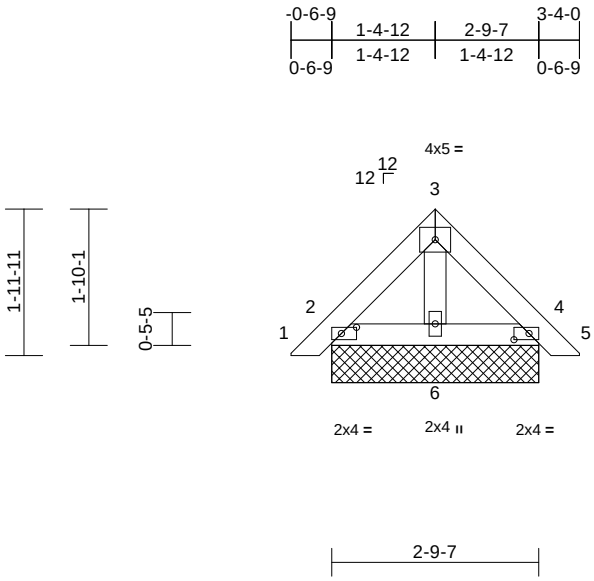

Scale = 1:31

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

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	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
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=74/2-9-7, 4=74/2-9-7, 6=75/2-9-7, 7=74/2-9-7, 10=74/2-9-7
Max Horiz 2=-46 (LC 11), 7=-46 (LC 11)
Max Uplift 2=-12 (LC 13), 4=-16 (LC 14), 6=-2 (LC 13), 7=-12 (LC 13), 10=-16 (LC 14)
Max Grav 2=90 (LC 2), 4=90 (LC 2), 6=87 (LC 2), 7=90 (LC 2), 10=90 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-3=-53/42, 3-4=-51/43, 4-5=0/19
BOT CHORD 2-6=-22/52, 4-6=-22/52
WEBS 3-6=-32/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
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) N/A
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL1	Valley	1	1	I50198600 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:23 Page: 1

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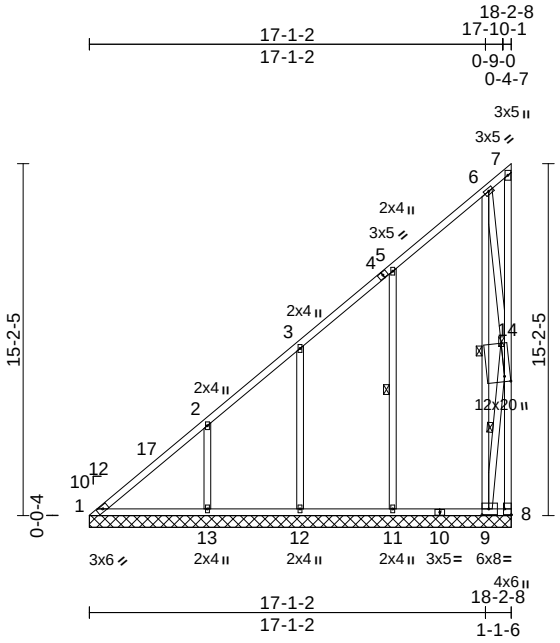

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Plate Offsets (X, Y): [8:Edge,0-3-8], [9:0-3-8,0-3-0], [14:0-2-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horiz(TL)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 158 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 6-0-0 oc bracing.
WEBS	1 Row at midpt 7-8, 5-11, 6-9, 9-14

REACTIONS (lb/size) 1=143/18-2-8, 8=31/18-2-8, 9=157/18-2-8, 11=288/18-2-8, 12=238/18-2-8, 13=366/18-2-8

Max Horiz 1=604 (LC 10)

Max Uplift 1=-91 (LC 11), 8=-626 (LC 12), 9=-261 (LC 9), 11=-140 (LC 13), 12=-144 (LC 13), 13=-166 (LC 13)

Max Grav 1=341 (LC 10), 8=447 (LC 9), 9=573 (LC 25), 11=508 (LC 24), 12=449 (LC 24), 13=534 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-890/949, 2-3=-700/736, 3-5=-533/577, 5-6=-344/382, 6-7=-188/181, 8-14=-633/546, 7-14=-95/105
BOT CHORD	1-13=-354/511, 12-13=-323/359, 11-12=-323/359, 9-11=-323/359, 8-9=-140/154
WEBS	3-12=-341/224, 2-13=-413/253, 5-11=-385/247, 6-9=-1002/818, 6-14=-966/1031, 9-14=-1386/1553

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 18-1-1 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 1.

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL2	Valley	1	1	I50198601 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:24

ID:BLlSl?unjtxbznqDL5fLE_ztKdL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

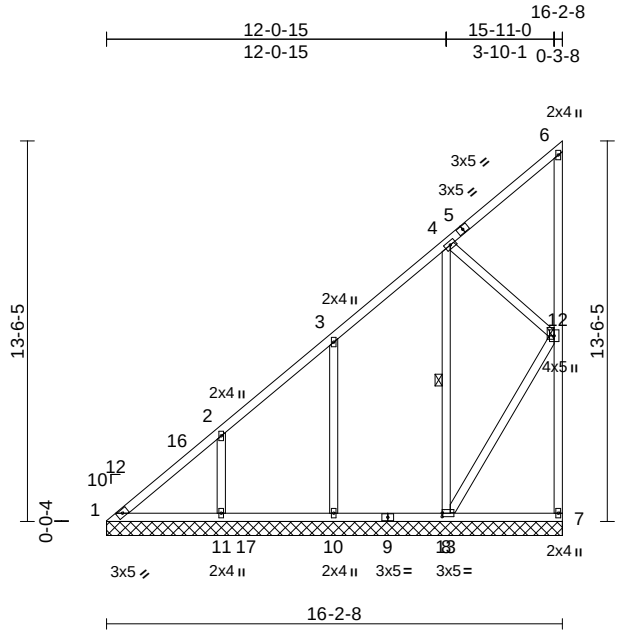

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Plate Offsets (X, Y): [8:Edge,0-1-8]

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	0.63	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.37	Horiz(TL)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 120 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 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 7-8.
WEBS	1 Row at midpt 6-7, 4-8

REACTIONS (lb/size) 1=110/16-2-8, 7=109/16-2-8, 8=304/16-2-8, 10=253/16-2-8, 11=312/16-2-8

Max Horiz 1=536 (LC 10)

Max Uplift 1=-93 (LC 9), 7=-220 (LC 10), 10=-142 (LC 13), 11=-147 (LC 13)

Max Grav 1=295 (LC 12), 7=224 (LC 24), 8=392 (LC 24), 10=474 (LC 24), 11=439 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-763/822, 2-3=-597/643, 3-4=-424/475, 4-6=-178/188, 7-12=-457/397, 6-12=-205/146
BOT CHORD	1-11=-350/464, 10-11=-245/267, 8-10=-245/267, 7-8=-111/123
WEBS	3-10=-346/224, 2-11=-362/234, 8-13=-264/40, 4-13=-495/319, 4-12=-285/309, 12-13=-331/351

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 16-1-1 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 1.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL3	Valley	1	1	I50198602 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:24 ID:fXJqyLvPUA3SbxPPvpAanCztKdK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

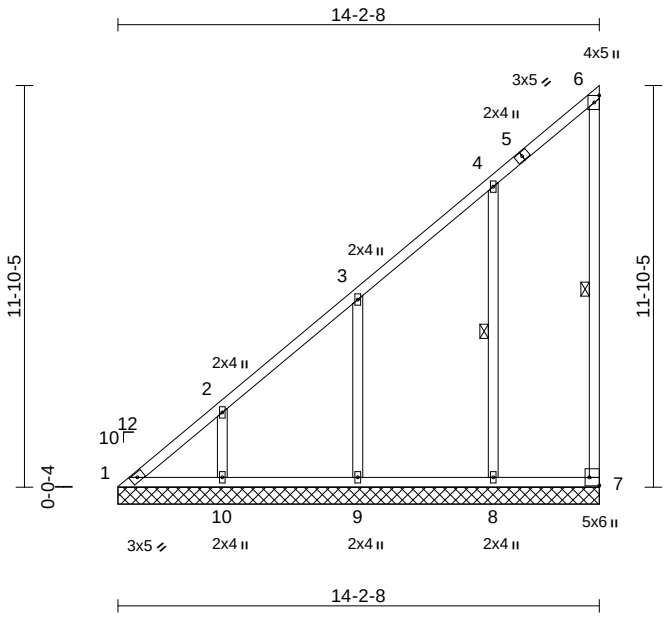

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Plate Offsets (X, Y): [7:Edge,0-3-8]

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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.52	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 89 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP 2400F 2.0E
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.
WEBS 1 Row at midpt 6-7, 4-8

REACTIONS (lb/size) 1=77/14-2-8, 7=77/14-2-8, 8=257/14-2-8, 9=277/14-2-8, 10=265/14-2-8
Max Horiz 1=468 (LC 10)
Max Uplift 1=-104 (LC 11), 7=-126 (LC 12), 8=-141 (LC 13), 9=-155 (LC 13), 10=-112 (LC 13)
Max Grav 1=277 (LC 10), 7=163 (LC 24), 8=463 (LC 24), 9=434 (LC 24), 10=333 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-798/813, 2-3=-654/662, 3-4=-475/483, 4-6=-243/251, 6-7=-183/157
BOT CHORD 1-10=-258/337, 9-10=-243/268, 8-9=-243/268, 7-8=-243/268
WEBS 3-9=-394/268, 2-10=-316/206, 4-8=-417/314

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-1-4, Interior (1) 3-1-4 to 14-1-1 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 1.

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL4	Valley	2	1	I50198603 Job Reference (optional)

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

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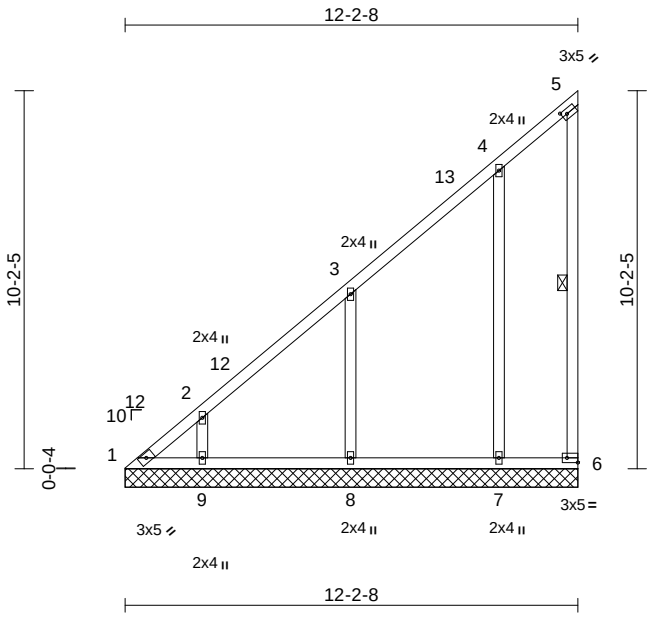

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Plate Offsets (X, Y): [5:0-1-11,0-1-8], [6:Edge,0-1-8]

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	0.87	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horiz(TL)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 76 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	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.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 5-6

REACTIONS (lb/size) 1=38/12-2-8, 6=34/12-2-8, 7=226/12-2-8, 8=288/12-2-8, 9=230/12-2-8
Max Horiz 1=400 (LC 10)
Max Uplift 1=-113 (LC 11), 6=-118 (LC 12), 7=-124 (LC 13), 8=-160 (LC 13), 9=-89 (LC 13)
Max Grav 1=238 (LC 10), 6=109 (LC 9), 7=379 (LC 24), 8=453 (LC 24), 9=282 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-728/735, 2-3=-598/599, 3-4=-406/408, 4-5=-198/201, 5-6=-95/85
BOT CHORD	1-9=-217/253, 8-9=-213/233, 7-8=-213/233, 6-7=-213/233
WEBS	3-8=-400/275, 2-9=-293/208, 4-7=-392/310

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 12-1-1 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 1.

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL5	Valley	2	1	I50198604 Job Reference (optional)

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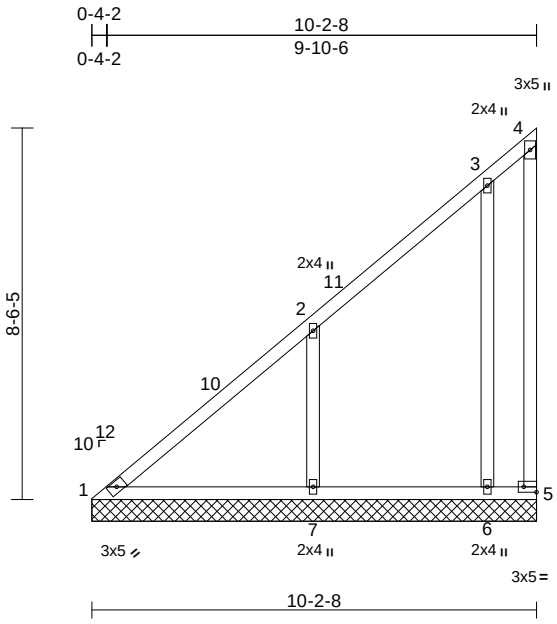

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Plate Offsets (X, Y): [5:Edge,0-1-8]

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	0.96	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.29	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horiz(TL)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 62 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 6-0-0 oc bracing.

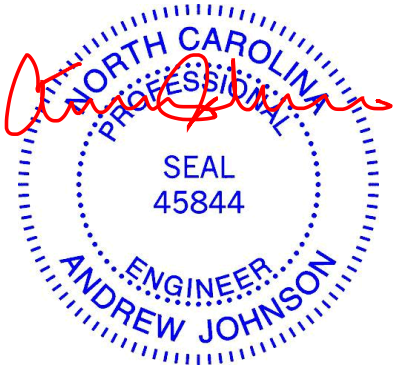
REACTIONS (lb/size) 1=138/10-2-8, 5=-6/10-2-8, 6=174/10-2-8, 7=375/10-2-8
Max Horiz 1=333 (LC 10)
Max Uplift 1=-30 (LC 9), 5=-132 (LC 25), 6=-107 (LC 13), 7=-186 (LC 13)
Max Grav 1=240 (LC 25), 5=81 (LC 9), 6=341 (LC 24), 7=553 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-560/555, 2-3=-332/323, 3-4=-161/158, 4-5=-33/27
BOT CHORD	1-7=-242/370, 6-7=-181/198, 5-6=-181/198
WEBS	2-7=-450/306, 3-6=-387/349

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 10-1-1 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1.



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL6	Valley	1	1	I50198605
					Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:25 Page: 1

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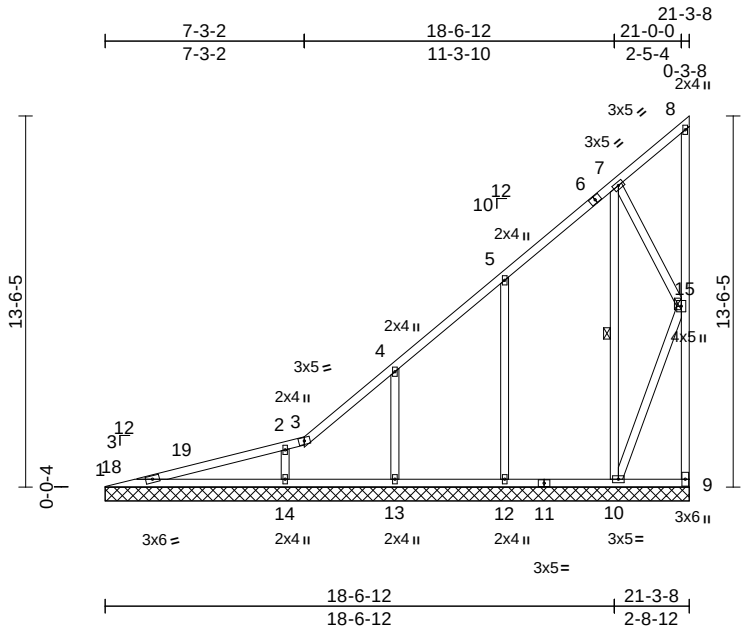

Scale = 1:84

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	0.60	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.57	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horiz(TL)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 140 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 6-0-0 oc bracing.
WEBS	1 Row at midpt 8-9, 7-10

REACTIONS (lb/size) 1=186/21-3-8, 9=64/21-3-8, 10=236/21-3-8, 12=295/21-3-8, 13=207/21-3-8, 14=444/21-3-8
Max Horiz 1=537 (LC 12)
Max Uplift 1=-61 (LC 11), 9=-302 (LC 12), 12=-155 (LC 15), 13=-117 (LC 15), 14=-115 (LC 11)
Max Grav 1=237 (LC 21), 9=216 (LC 13), 10=396 (LC 29), 12=521 (LC 28), 13=360 (LC 28), 14=557 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-661/628, 2-3=-623/639, 3-4=-647/689, 4-5=-514/561, 5-7=-328/370, 7-8=-137/143, 9-15=-543/491, 8-15=-131/95
BOT CHORD	1-14=-468/787, 13-14=-240/268, 12-13=-240/268, 10-12=-240/268, 9-10=-108/120
WEBS	4-13=-322/206, 2-14=-353/149, 5-12=-378/242, 7-10=-419/265, 7-15=-358/384, 10-15=-462/505

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-0 to 3-1-0, Interior (1) 3-1-0 to 21-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 1.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL7	Valley	1	1	I50198606
					Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 E Jan 6 2022 Print: 8.530 E Jan 6 2022 MiTek Industries, Inc. Fri Feb 11 17:02:02 Page: 1

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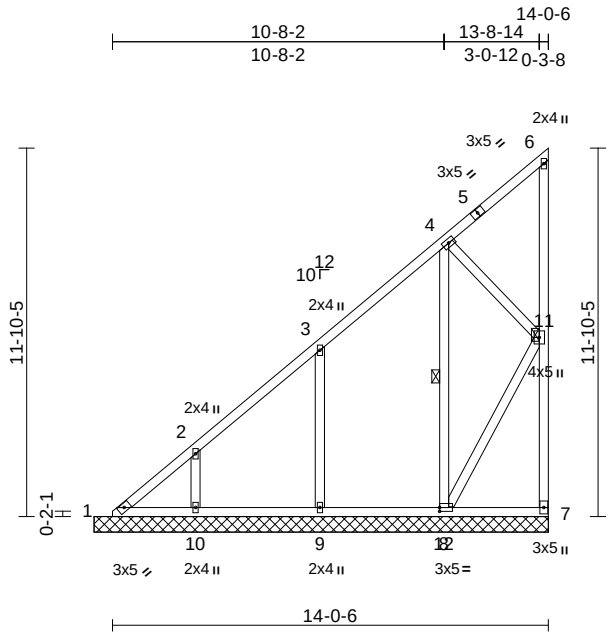

Scale = 1:74.2

Plate Offsets (X, Y): [8:Edge,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	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 103 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 6-7:2x4 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.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 6-7, 4-8

REACTIONS All bearings 14-7-8.

(lb) - Max Horiz 1=468 (LC 10)

Max Uplift All uplift 100 (lb) or less at joint(s) 1, 10 except 7=-234 (LC 10), 9=-158 (LC 13)

Max Grav All reactions 250 (lb) or less at joint (s) 1, 7 except 8=353 (LC 25), 9=439 (LC 24), 10=325 (LC 24)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-695/702, 2-3=-537/571, 3-4=-347/383, 7-11=-479/424
BOT CHORD	1-10=-243/273, 9-10=-243/266, 8-9=-243/266
WEBS	3-9=-373/249, 2-10=-312/209, 4-12=-398/252, 4-11=-284/300, 11-12=-358/385

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-0 to 3-4-4, Interior (1) 3-4-4 to 14-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL8	Valley	1	1	I50198607 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:27 Page: 1

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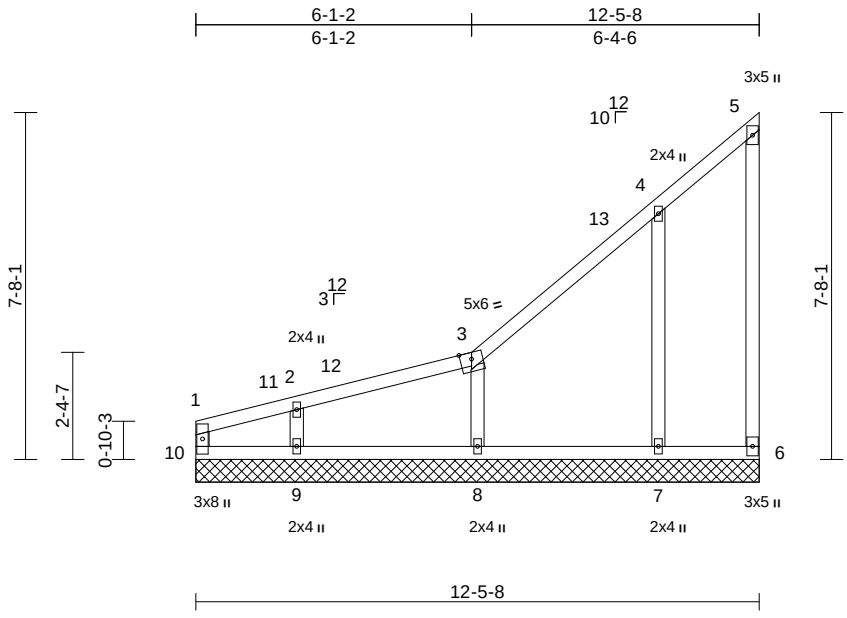

Scale = 1:51

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	0.79	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 63 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 6-0-0 oc bracing.

REACTIONS (lb/size) 6=31/12-5-8, 7=252/12-5-8, 8=264/12-5-8, 9=236/12-5-8, 10=42/12-5-8

Max Horiz 10=293 (LC 12)

Max Uplift 6=-83 (LC 14), 7=-151 (LC 15), 8=-18 (LC 15), 9=-107 (LC 15), 10=-35 (LC 13)

Max Grav 6=81 (LC 11), 7=343 (LC 28), 8=309 (LC 2), 9=279 (LC 2), 10=130 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-10=-151/125, 1-2=-429/389, 2-3=-379/356, 3-4=-373/375, 4-5=-170/167, 5-6=-93/87
BOT CHORD	9-10=-143/162, 8-9=-143/162, 7-8=-157/172, 6-7=-157/172
WEBS	3-8=-227/152, 2-9=-214/184, 4-7=-396/301

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 12-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 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 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.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL9	Valley	1	1	I50198608 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 E Jan 6 2022 Print: 8.530 E Jan 6 2022 MiTek Industries, Inc. Fri Feb 11 17:02:45 Page: 1
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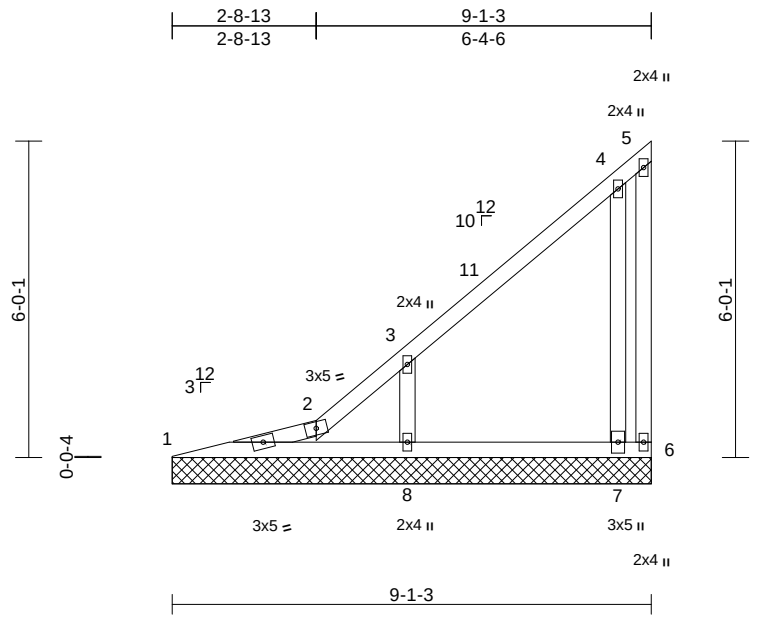

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 46 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
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 6-0-0 oc bracing.

REACTIONS All bearings 9-1-3.
(lb) - Max Horiz 1=230 (LC 12)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 8 except 6=-131 (LC 29), 7=-175 (LC 15)
Max Grav All reactions 250 (lb) or less at joint (s) 1, 6 except 7=356 (LC 28), 8=399 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-437/353, 2-3=-390/396, 3-11=-267/229, 4-11=-252/261
BOT CHORD 1-8=-126/282
WEBS 3-8=-342/227, 4-7=-485/424

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-0 to 2-9-13, Interior (1) 2-9-13 to 9-0-7 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 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 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8 except (jt=lb) 6=130, 7=175.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL10	Valley	2	1	I50198609 Job Reference (optional)

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

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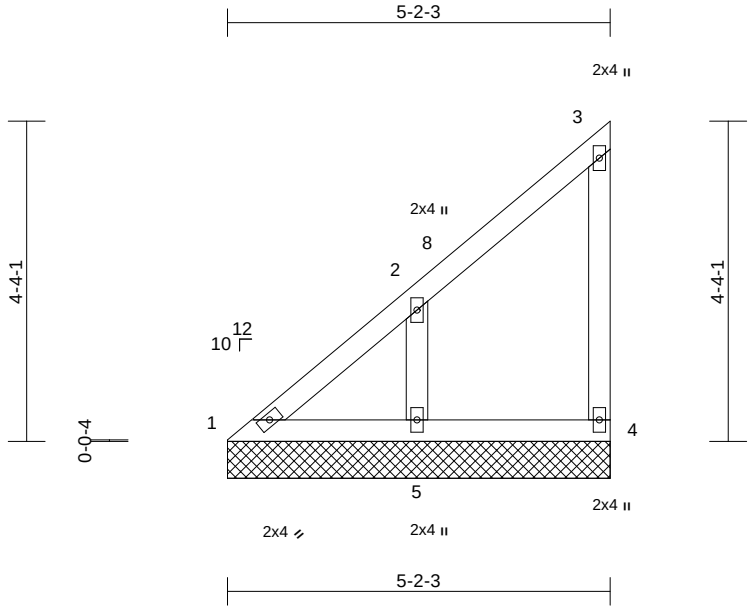

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
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
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-2-3 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-2-3, 4=5-2-3, 5=5-2-3
Max Horiz 1=162 (LC 10)
Max Uplift 1=-15 (LC 9), 4=-44 (LC 10), 5=-101 (LC 13)
Max Grav 1=117 (LC 25), 4=94 (LC 24), 5=278 (LC 24)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-315/293
WEBS	2-5=-266/224

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 4, 15 lb uplift at joint 1 and 101 lb uplift at joint 5.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL11	Valley	1	1	I50198610 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 E Jan 6 2022 Print: 8.530 E Jan 6 2022 MiTek Industries, Inc. Fri Feb 11 17:03:56 Page: 1
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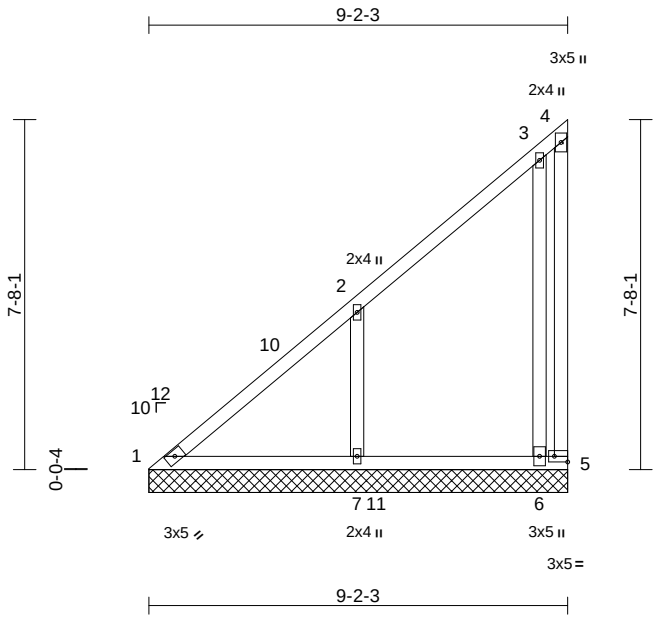

Scale = 1:50.5

Plate Offsets (X, Y): [5:Edge,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	0.74	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.41	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 56 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 6-0-0 oc bracing.

REACTIONS All bearings 9-2-3.
(lb) - Max Horiz 1=298 (LC 10)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 5=-263 (LC 25), 6=-133 (LC 13), 7=-172 (LC 13)
Max Grav All reactions 250 (lb) or less at joint (s) 1, 5 except 6=431 (LC 24), 7=506 (LC 24)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-517/473, 2-10=-490/503, 2-3=-288/282
BOT CHORD 1-7=-222/333
WEBS 2-7=-426/312, 3-6=-469/425

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 9-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 5=262, 7=171, 6=133.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL12	Valley	1	1	I50198611 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 E Jan 6 2022 Print: 8.530 E Jan 6 2022 MiTek Industries, Inc. Fri Feb 11 17:21:19 Page: 1
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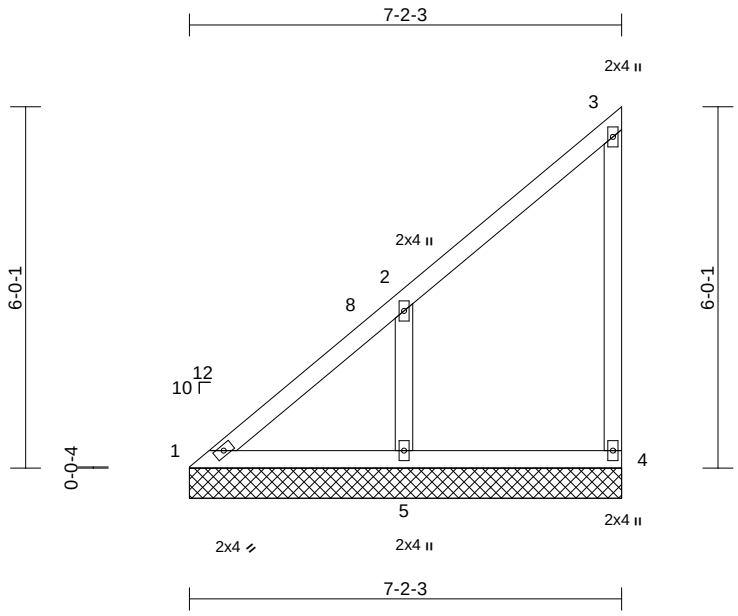


Scale = 1:38.3

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	0.73	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 35 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) 1=7-2-3, 4=7-2-3, 5=7-2-3
Max Horiz 1=230 (LC 10)
Max Uplift 1=-22 (LC 9), 4=-62 (LC 10), 5=-147 (LC 13)
Max Grav 1=165 (LC 25), 4=131 (LC 24), 5=392 (LC 24)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-426/383, 2-8=-407/407
BOT CHORD 1-5=-176/253
WEBS 2-5=-375/297

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 7-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 4, 22 lb uplift at joint 1 and 147 lb uplift at joint 5.

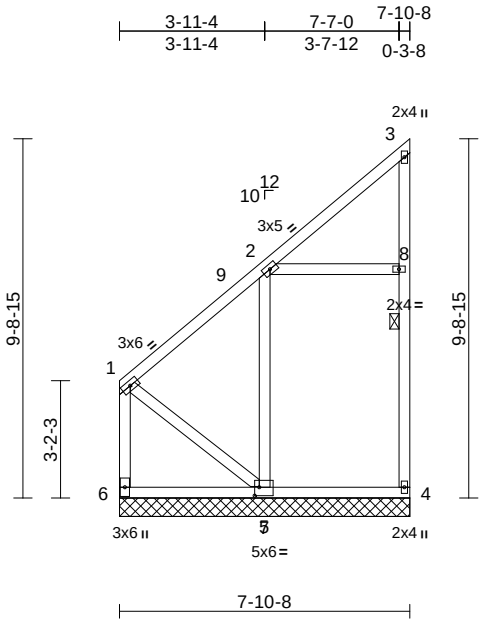
February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL13	Valley	1	1	I50198612 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:29 ID:WhQK2gmpmGs00bQAEB1F1LztK7E-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:62.5

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

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	0.51	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 66 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 7-3-7 oc bracing.
WEBS	1 Row at midpt 3-4

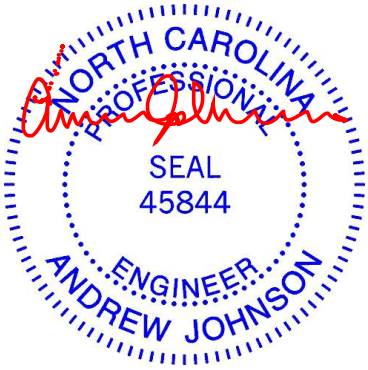
REACTIONS (lb/size) 4=101/7-10-8, 5=312/7-10-8, 6=101/7-10-8
Max Horiz 6=371 (LC 10)
Max Uplift 4=-41 (LC 10), 5=-387 (LC 10), 6=-229 (LC 9)
Max Grav 4=193 (LC 24), 5=623 (LC 24), 6=468 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-6=-757/728, 1-2=-599/631, 2-3=-116/114, 4-8=-156/114, 3-8=-160/117
BOT CHORD	5-6=-660/682, 4-5=-126/138
WEBS	5-7=-1050/900, 2-7=-607/464, 1-7=-745/733, 2-8=-263/289

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 7-8-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL14	Valley	1	1	I50198613 Job Reference (optional)

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

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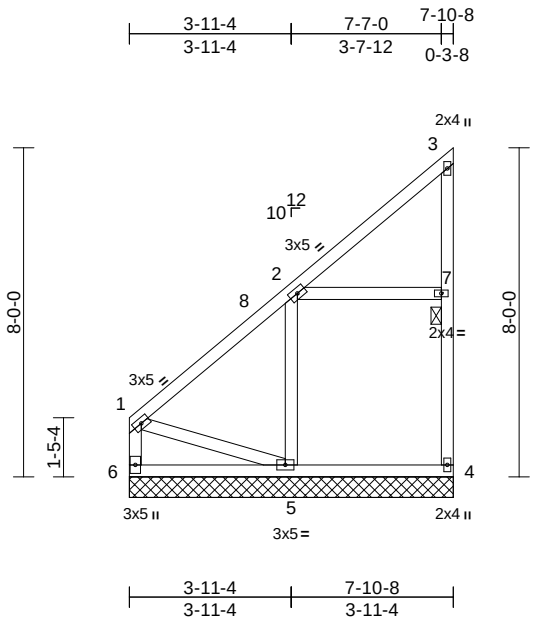

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 57 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 7-11-4 oc bracing.
WEBS	1 Row at midpt 3-4

REACTIONS (lb/size) 4=97/7-10-8, 5=320/7-10-8, 6=97/7-10-8
Max Horiz 6=304 (LC 10)
Max Uplift 4=-40 (LC 10), 5=-234 (LC 10), 6=-126 (LC 9)
Max Grav 4=184 (LC 24), 5=561 (LC 24), 6=313 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-6=-462/429, 1-2=-551/586, 2-3=-134/131, 4-7=-163/120, 3-7=-166/123
BOT CHORD	5-6=-559/569, 4-5=-80/87
WEBS	2-5=-582/437, 1-5=-532/529, 2-7=-222/241

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 7-8-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL15	Valley	1	1	I50198614 Job Reference (optional)

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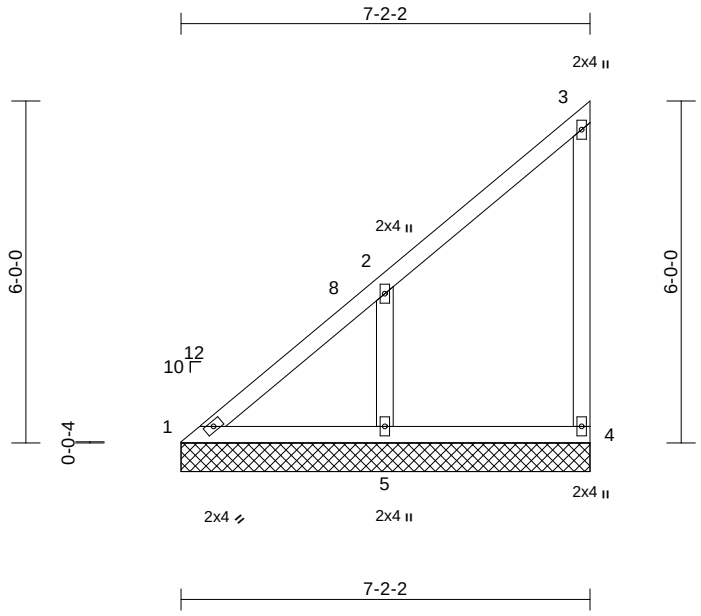

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 35 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 (lb/size) 1=92/7-2-2, 4=87/7-2-2, 5=297/7-2-2
Max Horiz 1=230 (LC 10)
Max Uplift 1=-22 (LC 9), 4=-62 (LC 10), 5=-146 (LC 13)
Max Grav 1=165 (LC 25), 4=131 (LC 24), 5=391 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-425/406, 2-3=-214/207, 3-4=-210/187
BOT CHORD	1-5=-176/254, 4-5=-130/141
WEBS	2-5=-374/296

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 7-0-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1.

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL16	Valley	1	1	I50198615
					Job Reference (optional)

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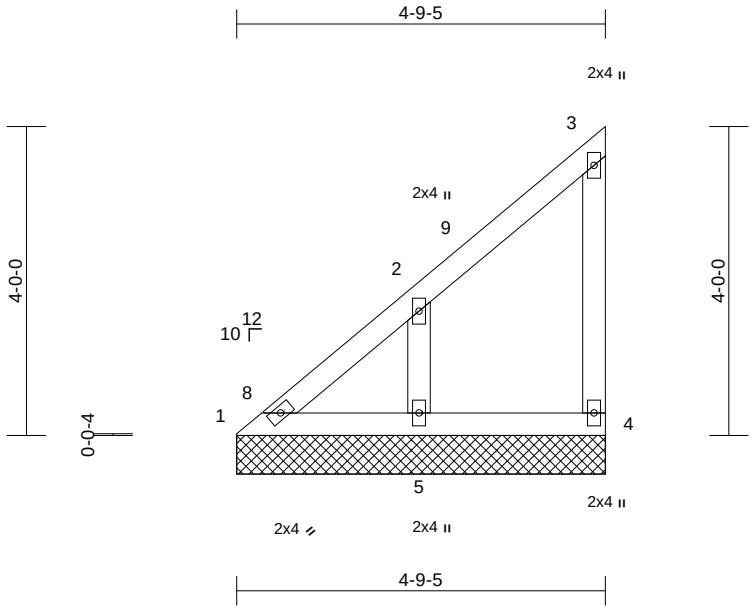

Scale = 1:29.8

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 23 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 4-9-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-9-5, 4=4-9-5, 5=4-9-5
Max Horiz 1=148 (LC 10)
Max Uplift 1=-13 (LC 9), 4=-41 (LC 10), 5=-91 (LC 13)
Max Grav 1=107 (LC 25), 4=86 (LC 24), 5=255 (LC 24)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-288/268

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 4-7-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 4, 13 lb uplift at joint 1 and 91 lb uplift at joint 5.

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL17	Valley	1	1	I50198616
					Job Reference (optional)

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

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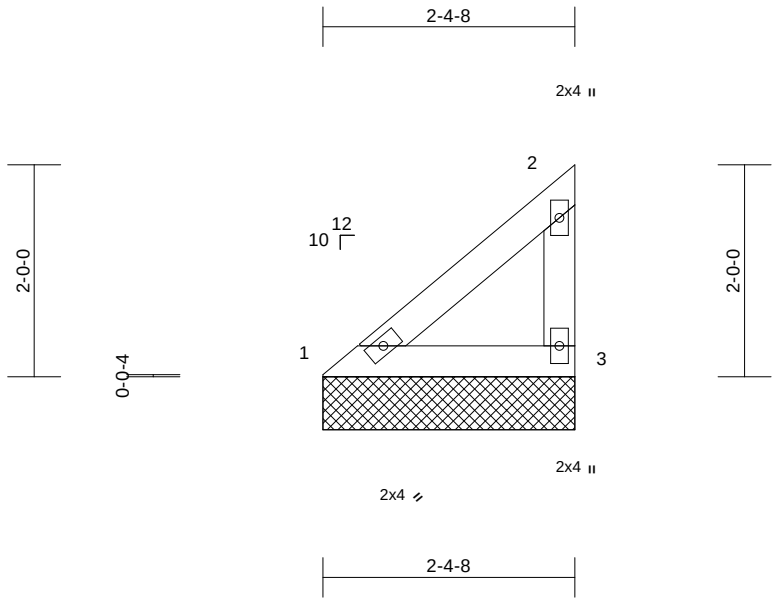


Scale = 1:21.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 9 lb	FT = 20%

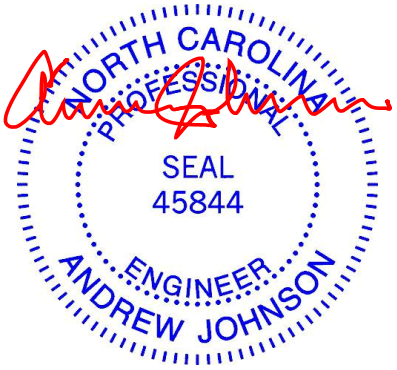
LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-4-8, 3=2-4-8
Max Horiz 1=67 (LC 10)
Max Uplift 1=-3 (LC 13), 3=-27 (LC 10)
Max Grav 1=89 (LC 2), 3=103 (LC 24)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 3 and 3 lb uplift at joint 1.



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL18	Valley	1	1	I50198617 Job Reference (optional)

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

Run: 8.53 E Jan 6 2022 Print: 8.530 E Jan 6 2022 MiTek Industries, Inc. Fri Feb 11 17:29:06 Page: 1
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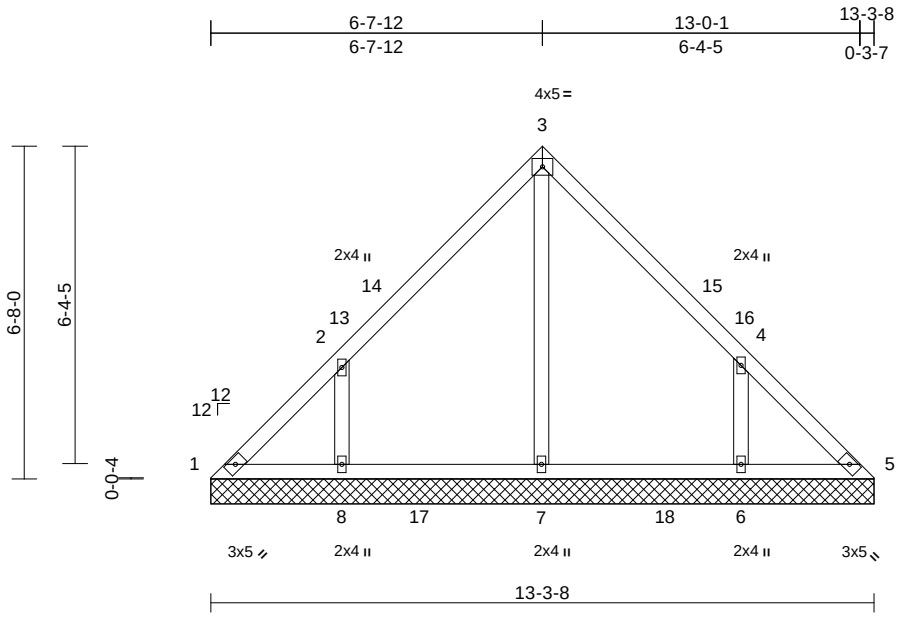

Scale = 1:46.2

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 62 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 All bearings 13-3-8.
(lb) - Max Horiz 1=-170 (LC 9)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5 except 6=-176 (LC 14), 8=-181 (LC 13)
Max Grav All reactions 250 (lb) or less at joint (s) 1, 5 except 6=388 (LC 25), 7=355 (LC 24), 8=394 (LC 24)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-390/299, 4-6=-386/296

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 6-8-0, Exterior (2) 6-8-0 to 9-8-0, Interior (1) 9-8-0 to 13-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=180, 6=175.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL19	Valley	1	1	I50198618 Job Reference (optional)

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

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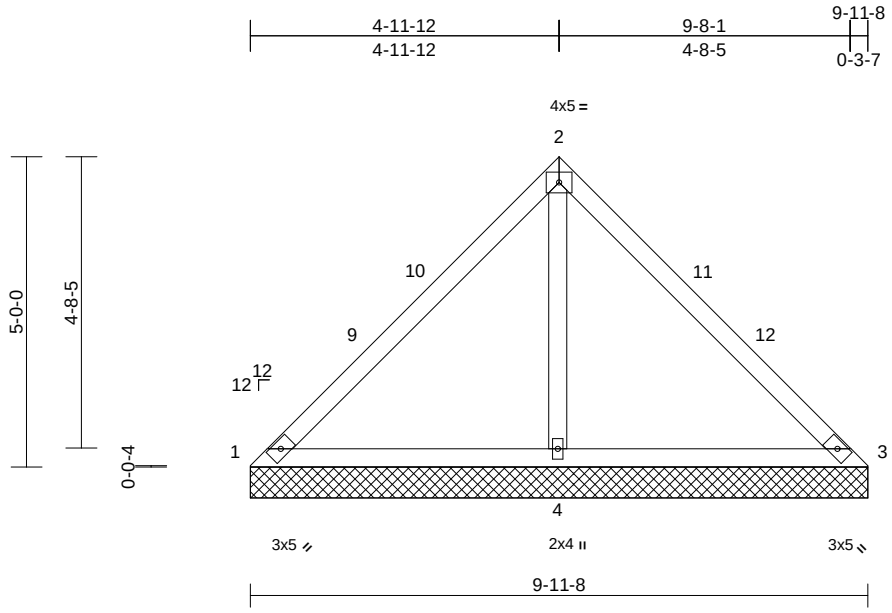

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 41 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 9-11-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=9-11-8, 3=9-11-8, 4=9-11-8
Max Horiz 1=-126 (LC 9)
Max Uplift 1=-29 (LC 29), 3=-27 (LC 28), 4=-156 (LC 13)
Max Grav 1=71 (LC 28), 3=73 (LC 29), 4=734 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-188/277, 9-10=-157/288, 2-10=-156/319, 2-11=-153/315, 11-12=-154/284, 3-12=-173/273
BOT CHORD 1-4=-313/238, 3-4=-310/236
WEBS 2-4=-681/369

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 5-0-0, Exterior (2) 5-0-0 to 8-0-0, Interior (1) 8-0-0 to 9-11-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1, 27 lb uplift at joint 3 and 156 lb uplift at joint 4.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL20	Valley	1	1	I50198619
					Job Reference (optional)

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

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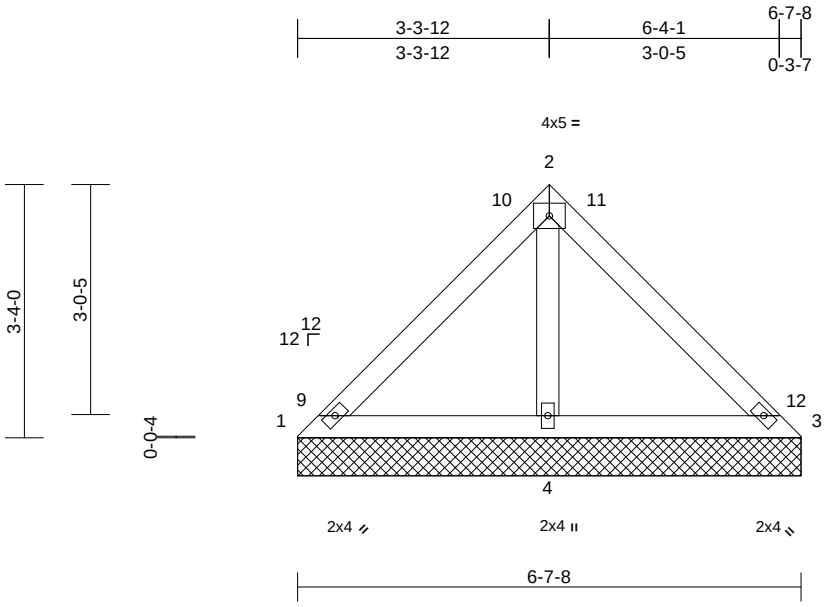

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	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 6-7-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=6-7-8, 3=6-7-8, 4=6-7-8
Max Horiz 1=-82 (LC 11)
Max Uplift 4=-83 (LC 13)
Max Grav 1=67 (LC 28), 3=69 (LC 29), 4=435 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-348/203

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 3-4-0, Exterior (2) 3-4-0 to 6-4-0, Interior (1) 6-4-0 to 6-7-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 4.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL21	Valley	1	1	I50198620 Job Reference (optional)

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

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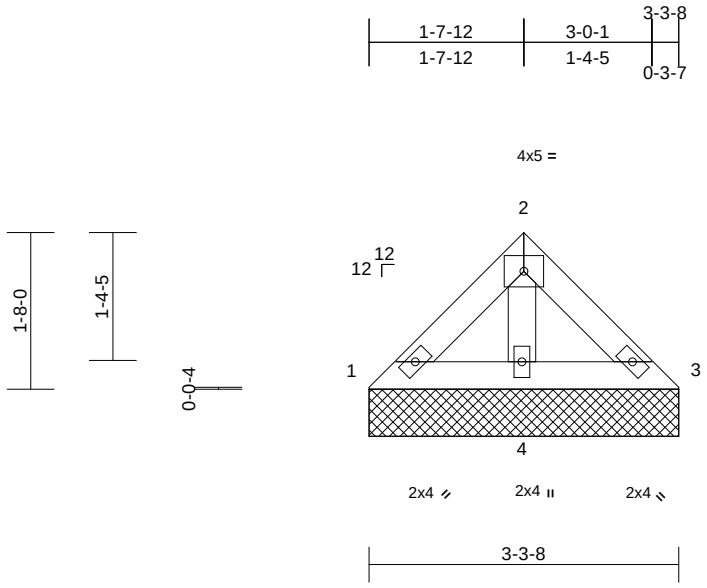

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	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
OTHERS 2x4 SP No.3

BRACING

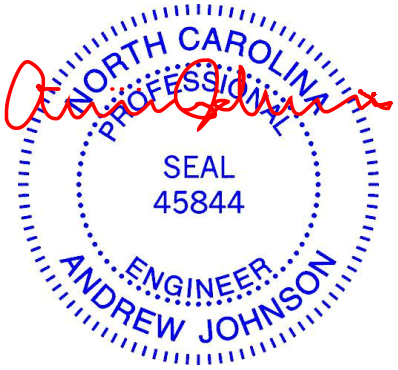
TOP CHORD Structural wood sheathing directly applied or 3-3-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=3-3-8, 3=3-3-8, 4=3-3-8
Max Horiz 1=-38 (LC 11)
Max Uplift 1=-2 (LC 14), 3=-4 (LC 14), 4=-22 (LC 13)
Max Grav 1=49 (LC 28), 3=50 (LC 29), 4=174 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1, 4 lb uplift at joint 3 and 22 lb uplift at joint 4.



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL22	Valley	2	1	I50198621
					Job Reference (optional)

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

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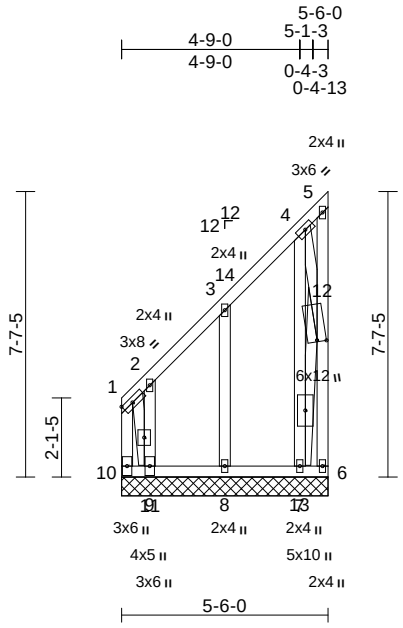

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Plate Offsets (X, Y): [1:0-3-7,Edge], [12:0-0-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horiz(TL)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 67 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 5-6-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-2-11 oc bracing: 9-10.

REACTIONS (lb/size) 6=24/5-6-0, 7=77/5-6-0, 8=146/5-6-0, 9=102/5-6-0, 10=5/5-6-0
Max Horiz 10=285 (LC 10)
Max Uplift 6=-235 (LC 12), 7=-58 (LC 9), 8=-87 (LC 13), 9=-621 (LC 10), 10=-501 (LC 11)
Max Grav 6=161 (LC 9), 7=181 (LC 12), 8=209 (LC 24), 9=506 (LC 11), 10=763 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-10=-1426/1393, 1-2=-503/503, 2-3=-401/410, 3-4=-233/247, 4-5=-115/116, 6-12=-367/353, 5-12=-110/101
BOT CHORD	9-10=-499/505, 8-9=-158/172, 7-8=-158/172, 6-7=-109/118
WEBS	3-8=-271/216, 9-11=-1201/1191, 2-11=-196/188, 7-13=-145/111, 4-13=-425/346, 1-11=-1114/1144, 4-12=-474/513, 12-13=-488/526

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 5-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 2-0-0 oc.
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.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL23	Valley	1	1	I50198622
					Job Reference (optional)

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

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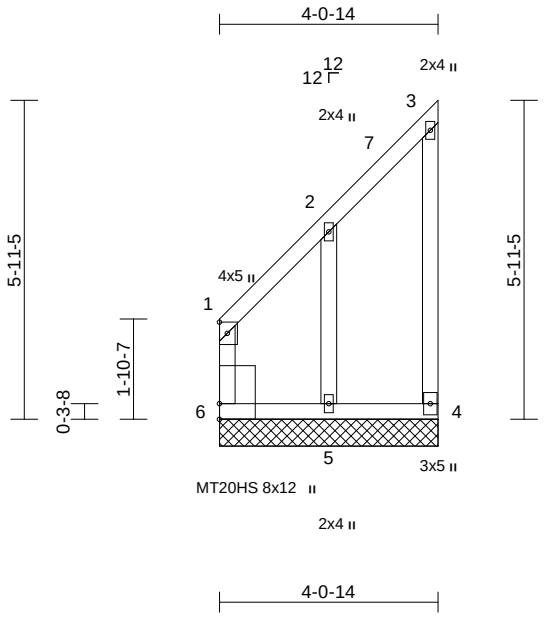

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	n/a	-	n/a	999	MT20HS	187/143
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.51	Vert(TL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 30 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 4-0-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=51/4-0-14, 5=154/4-0-14, 6=51/4-0-14
Max Horiz 6=218 (LC 10)
Max Uplift 4=-59 (LC 12), 5=-222 (LC 10), 6=-131 (LC 11)
Max Grav 4=80 (LC 24), 5=298 (LC 24), 6=268 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-6=-374/318, 1-2=-469/432, 2-3=-155/155, 3-4=-136/121
BOT CHORD	5-6=-131/142, 4-5=-131/142
WEBS	2-5=-425/422

NOTES

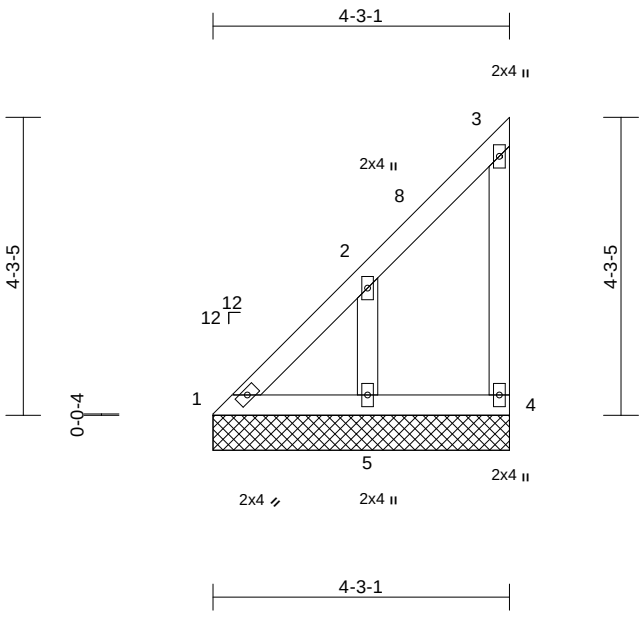
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-11-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) All plates are MT20 plates unless otherwise indicated.
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 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.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL24	Valley	1	1	I50198623 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:35 Page: 1
ID:MlW7xGK5XtkxhW?o7uNCpWztJZf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:33.1

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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 22 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 4-0-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

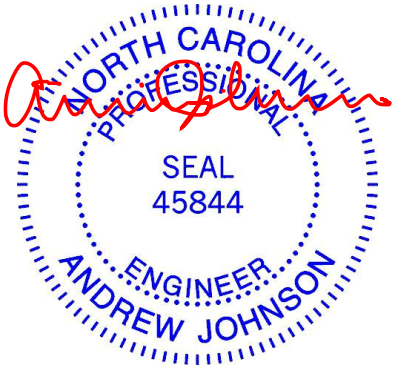
REACTIONS (lb/size) 1=59/4-3-1, 4=45/4-3-1, 5=173/4-3-1
Max Horiz 1=158 (LC 10)
Max Uplift 1=-23 (LC 9), 4=-50 (LC 10), 5=-104 (LC 13)
Max Grav 1=118 (LC 25), 4=76 (LC 24), 5=234 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-323/299, 2-3=-161/156, 3-4=-152/141
BOT CHORD	1-5=-138/163, 4-5=-92/99
WEBS	2-5=-238/211

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -0-2-3 to 2-9-13, Interior (1) 2-9-13 to 3-11-2 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1.



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL25	Valley	1	1	I50198624 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:36 Page: 1
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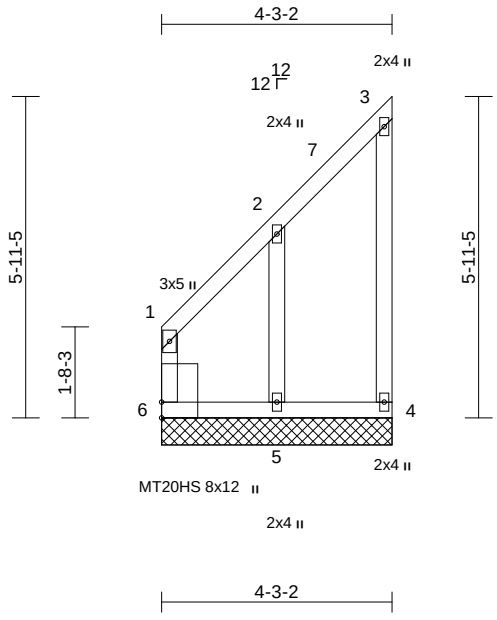


Scale = 1:42.6

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	0.77	Vert(LL)	n/a	-	n/a	999	MT20HS	187/143
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.47	Vert(TL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 30 lb	FT = 20%

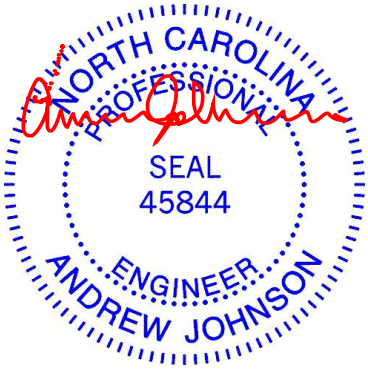
LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=53/4-3-2, 5=162/4-3-2, 6=53/4-3-2
Max Horiz 6=218 (LC 10)
Max Uplift 4=-58 (LC 12), 5=-208 (LC 10), 6=-118 (LC 11)
Max Grav 4=83 (LC 24), 5=299 (LC 24), 6=253 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-364/306, 1-2=-472/433, 2-3=-162/161, 3-4=-142/127
BOT CHORD 5-6=-131/142, 4-5=-131/142
WEBS 2-5=-420/415

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 4-1-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) All plates are MT20 plates unless otherwise indicated.
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 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.



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL26	Valley	1	1	I50198625 Job Reference (optional)

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

Run: 8.53 E Jan 6 2022 Print: 8.530 E Jan 6 2022 MiTek Industries, Inc. Fri Feb 11 17:30:53 Page: 1
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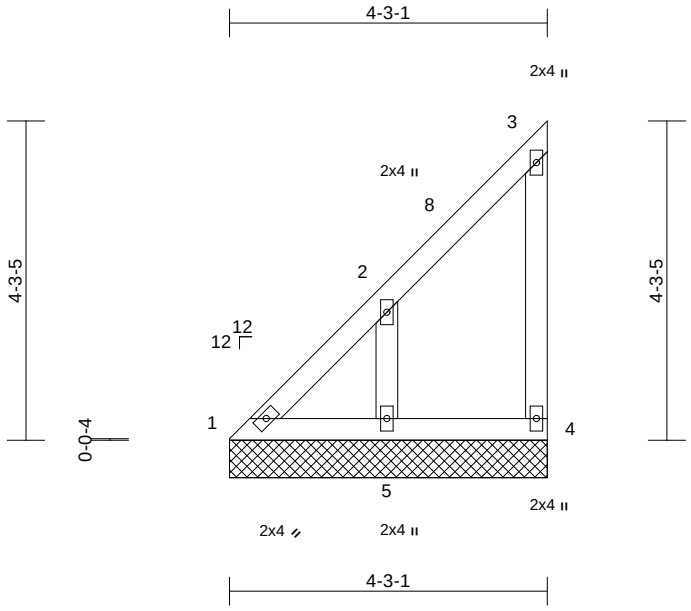

Scale = 1:30.8

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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 22 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 4-3-1 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-3-1, 4=4-3-1, 5=4-3-1
Max Horiz 1=158 (LC 10)
Max Uplift 1=-25 (LC 9), 4=-51 (LC 10), 5=-103 (LC 13)
Max Grav 1=115 (LC 25), 4=82 (LC 24), 5=233 (LC 24)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-330/304

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 4-1-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 4, 25 lb uplift at joint 1 and 103 lb uplift at joint 5.

February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL27	Valley	1	1	I50198626
					Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:37
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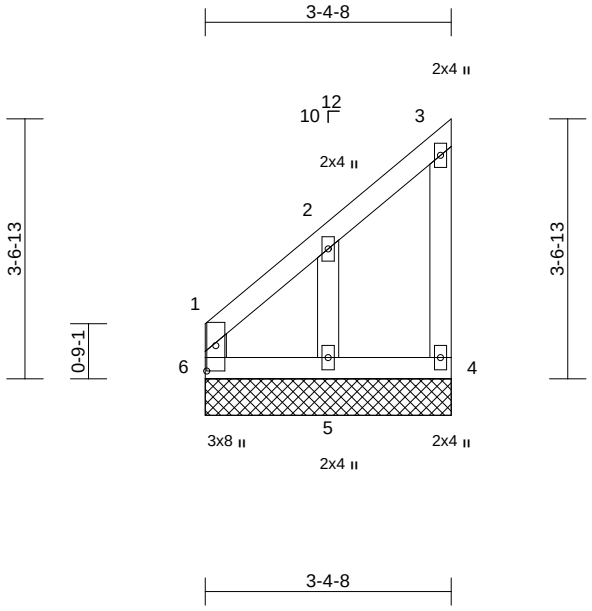

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Plate Offsets (X, Y): [6:0-4-3,0-1-8]

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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 19 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 3-4-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

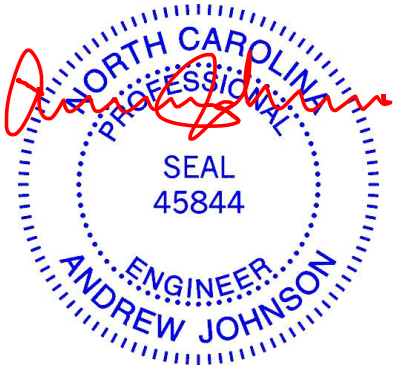
REACTIONS (lb/size) 4=42/3-4-8, 5=125/3-4-8, 6=42/3-4-8
Max Horiz 6=125 (LC 10)
Max Uplift 4=-27 (LC 10), 5=-96 (LC 13), 6=-33 (LC 9)
Max Grav 4=61 (LC 24), 5=189 (LC 24), 6=106 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-6=-150/117, 1-2=-244/224, 2-3=-99/97, 3-4=-90/79
BOT CHORD	5-6=-74/80, 4-5=-74/80
WEBS	2-5=-226/209

NOTES

1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 4-0-0 oc.
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.



February 13,2022

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

Job	Truss	Truss Type	Qty	Ply	INSTALL 61 Willowcroft-Avery-Roof
22010064-A	VL28	Valley	1	1	I50198627 Job Reference (optional)

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

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Fri Feb 11 10:50:37

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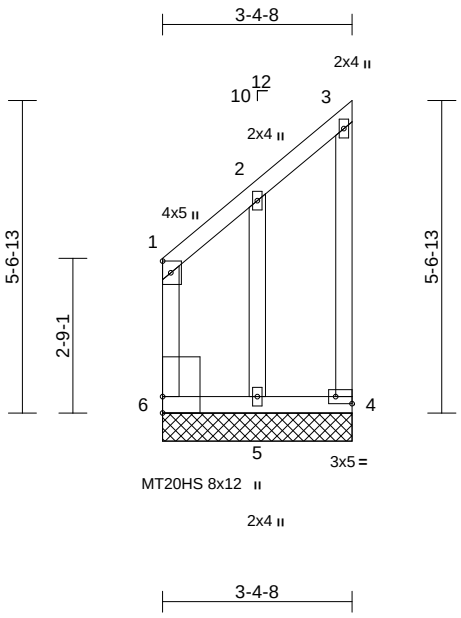


Scale = 1:41.1

Plate Offsets (X, Y): [4:Edge,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	0.70	Vert(LL)	n/a	-	n/a	999	MT20HS	187/143
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.58	Vert(TL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 28 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 3-4:2x4 SP No.3
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-4-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=43/3-4-8, 5=124/3-4-8, 6=43/3-4-8
Max Horiz 6=202 (LC 12)
Max Uplift 4=-63 (LC 12), 5=-227 (LC 10), 6=-165 (LC 11)
Max Grav 4=76 (LC 24), 5=275 (LC 24), 6=282 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-6=-336/295, 1-2=-363/342, 2-3=-110/116, 3-4=-108/97
BOT CHORD	5-6=-131/139, 4-5=-131/139
WEBS	2-5=-385/377

NOTES

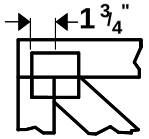
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) All plates are MT20 plates unless otherwise indicated.
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 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.

February 13,2022

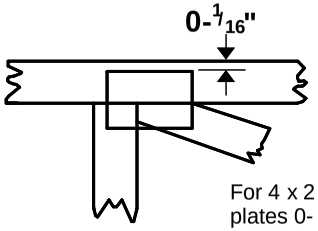
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

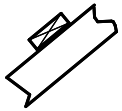
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

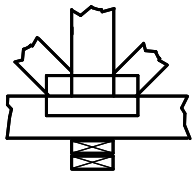
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

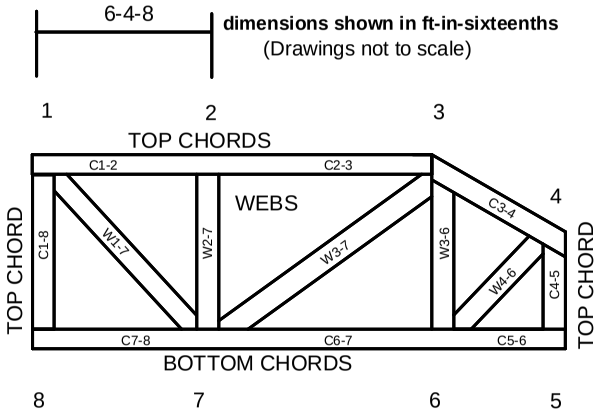


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek Engineering Reference Sheet: MII-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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.