

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: NC1\_111-R  
Caruso-Tillery1:OYLNC1 111

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Apex,NC.

Pages or sheets covered by this seal: I57917591 thru I57917642

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



April 21,2023

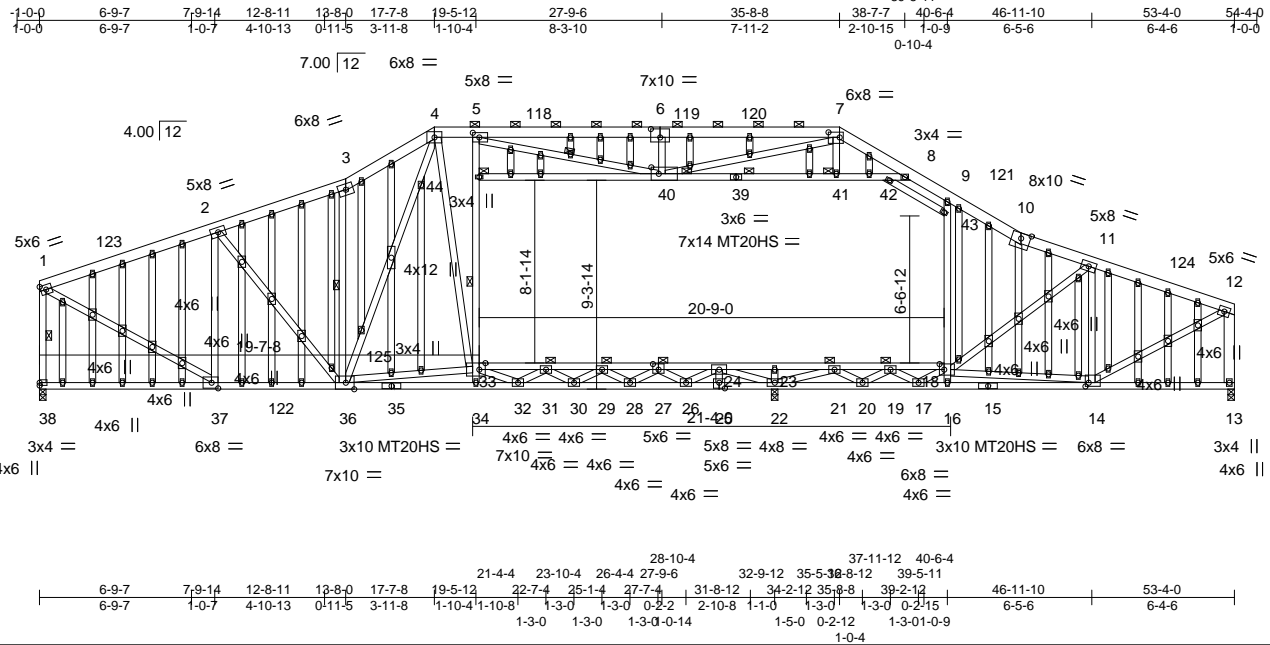
Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917591
NC1 111-R	AT01G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:33:43 2023 Page 1  
 ID:JbnYVf1QbWGMVvS3eidP34zb6LG-Cz\_dwJyelOUN7Rui7MUn8\_c4NhGqKU7\_0CBRYuzOU3s



Scale = 1:102.8

Plate Offsets (X,Y)-- [5:0-3-8,0-2-8], [6:0-5-0,0-4-8], [7:0-6-0,0-2-12], [14:0-1-12,0-2-0], [18:0-2-8,0-3-0], [25:0-3-0,0-3-0], [27:0-3-0,0-3-0], [33:0-3-4,Edge], [36:0-4-8,Edge], [37:0-3-8,0-3-0], [40:0-4-0,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.91	Vert(LL) -0.41 31-33 >951 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.92	Vert(CT) -0.70 34-36 >562 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.97	Horz(CT) 0.09 13 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.14 34-36 >999 240	Weight: 709 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 7-10: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-13 max.): 4-7.
BOT CHORD 2x4 SP No.2 *Except* 25-35: 2x4 SP No.1, 18-27: 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 5-9-5 oc bracing.
WEBS 2x4 SP No.3 *Except* 12-13: 2x6 SP No.2, 1-37,5-34,8-39,9-16,39-44: 2x4 SP No.2	WEBS 1 Row at midpt 1-38, 33-44, 40-41, 5-40, 3-36
OTHERS 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 40, 41, 44, 27, 31, 29, 21, 19

**REACTIONS.** (lb/size) 38=2068/0-3-8 (min. 0-2-9), 13=1911/0-3-8 (min. 0-2-5), 22=1284/0-3-8 (min. 0-2-6)  
 Max Horz 38=138(LC 9)  
 Max Grav 38=2178(LC 26), 13=1946(LC 2), 22=2013(LC 27)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**TOP CHORD**  
 1-38=-2109/0, 3-4=-2960/0, 4-5=-2469/0, 5-118=-2877/213, 118-119=-2877/213,  
 6-119=-2877/213, 6-120=-2855/208, 7-120=-2855/208, 7-8=-1455/207, 8-121=-2369/0,  
 9-121=-2406/0, 9-10=-2670/0, 12-13=-1889/0, 1-123=-2297/0, 2-123=-2244/0,  
 2-3=-2721/0, 10-11=-2706/0, 11-124=-2085/0, 12-124=-2162/0

**BOT CHORD**  
 37-122=0/2129, 36-122=0/2129, 35-36=0/2787, 34-35=0/2787, 32-34=0/2926,  
 30-32=0/3650, 28-30=0/3338, 26-28=0/2346, 25-26=-891/207, 22-25=-891/207,  
 20-22=-805/0, 17-20=-169/1102, 16-17=-345/2197, 15-16=-275/2169, 14-15=-275/2169,  
 31-33=-985/48, 29-31=-1291/325, 27-29=-805/945, 24-27=-151/1951, 23-24=0/4940,  
 21-23=0/4940, 19-21=0/2830, 18-19=-59/2525

**WEBS**  
 1-37=0/2439, 2-37=-1026/33, 33-44=-719/216, 5-44=-597/235, 39-40=-1684/0,  
 39-41=-1684/0, 41-42=-1686/0, 8-42=-1425/0, 18-43=-388/191, 9-43=-321/304,  
 11-14=-1150/0, 12-14=0/2335, 6-40=-543/120, 5-40=-278/837, 7-40=0/2052, 11-18=0/700,  
 14-18=-367/1756, 42-43=-307/20, 26-27=-1144/0, 32-33=-83/811, 31-32=-574/163,  
 30-31=-310/85, 29-30=-28/385, 28-29=-606/0, 27-28=0/678, 24-26=0/1530,  
 22-24=-2442/0, 21-22=-1999/0, 20-21=0/960, 19-20=-921/21, 17-19=-128/746,  
 17-18=-608/89, 22-23=-490/0, 2-36=0/645, 4-33=0/867, 4-36=-110/652, 36-125=-609/110,  
 33-125=-609/110, 3-36=-811/72

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 17-7-8, Exterior(2) 17-7-8 to 21-10-7, Interior(1) 21-10-7 to 35-8-8, Exterior(2) 35-8-8 to 39-11-7, Interior(1) 39-11-7 to 53-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Provide adequate drainage to prevent water ponding.



April 21, 2023

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 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917591
NC1 111-R	AT01G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:33:43 2023 Page 2  
ID:JbnYVf1QbWGMYS3eidP34zb6LG-Cz\_dwJyeLoUN7Rui7MUn8\_c4NhGqKU7\_0CBRYuzOU3s

**NOTES-**

- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Ceiling dead load (5.0 psf) on member(s). 8-9, 9-10, 40-44, 40-41, 41-42, 8-42; Wall dead load (5.0psf) on member(s).33-44, 18-43, 9-43
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 31-33, 29-31, 27-29, 24-27, 23-24, 21-23, 19-21, 18-19
- 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) N/A
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Attic room checked for L/360 deflection.

**LOAD CASE(S)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-4=-60, 4-7=-60, 7-8=-60, 8-10=-70, 13-38=-20, 18-33=-30, 8-44=-10, 1-3=-60, 10-12=-60  
Drag: 33-44=-10, 9-18=-10
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-4=-50, 4-7=-50, 7-8=-50, 8-10=-60, 37-38=-20, 37-122=-50, 13-122=-20, 18-33=-90, 8-44=-10, 1-3=-50, 10-12=-50, 36-125=-30  
Drag: 33-44=-10, 9-18=-10
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 3-4=-20, 4-7=-20, 7-8=-20, 8-10=-30, 13-38=-40, 18-33=-30, 8-44=-10, 1-3=-20, 10-12=-20, 36-125=-40  
Drag: 33-44=-10, 9-18=-10
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=12, 4-118=20, 7-118=15, 7-8=17, 8-121=11, 10-121=6, 13-38=-12, 18-33=-18, 8-44=-6, 1-123=22, 3-123=12, 10-12=12  
Horz: 1-38=13, 3-4=-24, 7-121=29, 10-121=24, 12-13=24, 1-123=-34, 3-123=-24, 10-12=24  
Drag: 33-44=-10, 9-18=-10
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=17, 4-120=15, 7-120=20, 7-8=12, 8-10=6, 13-38=-12, 18-33=-18, 8-44=-6, 1-3=12, 10-124=12, 12-124=22  
Horz: 1-38=-24, 3-4=-29, 7-10=24, 12-13=-13, 1-3=-24, 10-124=24, 12-124=34  
Drag: 33-44=-10, 9-18=-10
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-44, 4-7=-29, 7-8=-44, 8-10=-54, 13-38=-20, 18-33=-30, 8-44=-10, 1-3=-32, 10-12=-32  
Horz: 1-38=-15, 3-4=24, 7-10=-24, 12-13=-22, 1-3=12, 10-12=-12  
Drag: 33-44=-10, 9-18=-10
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-44, 4-7=-29, 7-8=-44, 8-10=-54, 13-38=-20, 18-33=-30, 8-44=-10, 1-3=-32, 10-12=-32  
Horz: 1-38=22, 3-4=24, 7-10=-24, 12-13=15, 1-3=12, 10-12=-12  
Drag: 33-44=-10, 9-18=-10
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-13, 4-7=9, 7-8=3, 8-10=-3, 13-38=-12, 18-33=-18, 8-44=-6, 1-3=9, 10-12=4  
Horz: 1-38=9, 3-4=1, 7-10=15, 12-13=14, 1-3=-21, 10-12=16  
Drag: 33-44=-10, 9-18=-10
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=3, 4-7=9, 7-8=-13, 8-10=-19, 13-38=-12, 18-33=-18, 8-44=-6, 1-3=4, 10-12=9  
Horz: 1-38=-14, 3-4=-15, 7-10=-1, 12-13=-9, 1-3=-16, 10-12=21  
Drag: 33-44=-10, 9-18=-10
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-30, 4-7=-7, 7-8=-14, 8-10=-24, 13-38=-20, 18-33=-30, 8-44=-10, 1-3=-7, 10-12=-13  
Horz: 1-38=18, 3-4=10, 7-10=6, 12-13=5, 1-3=-13, 10-12=7  
Drag: 33-44=-10, 9-18=-10
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-14, 4-7=-7, 7-8=-30, 8-10=-40, 13-38=-20, 18-33=-30, 8-44=-10, 1-3=-13, 10-12=-7  
Horz: 1-38=-5, 3-4=-6, 7-10=-10, 12-13=-18, 1-3=-7, 10-12=13  
Drag: 33-44=-10, 9-18=-10
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=9, 4-119=9, 7-119=2, 7-8=2, 8-10=-4, 13-38=-12, 18-33=-18, 8-44=-6, 1-3=9, 10-12=2  
Horz: 1-38=5, 3-4=-21, 7-10=14, 12-13=12, 1-3=-21, 10-12=14  
Drag: 33-44=-10, 9-18=-10
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=2, 4-119=2, 7-119=9, 7-8=9, 8-10=3, 13-38=-12, 18-33=-18, 8-44=-6, 1-3=2, 10-12=9  
Horz: 1-38=-12, 3-4=-14, 7-10=21, 12-13=-5, 1-3=-14, 10-12=21  
Drag: 33-44=-10, 9-18=-10
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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ID:JbnYVf1QbWGMYS3eidP34zb6LG-Cz\_dwJyeLoUN7Rui7MUN8\_c4NhGqKU7\_0CBRYuzOU3s

### LOAD CASE(S)

- Uniform Loads (plf)  
Vert: 3-4=9, 4-119=9, 7-119=2, 7-8=2, 8-10=-4, 13-38=-12, 18-33=-18, 8-44=-6, 1-3=9, 10-12=2  
Horz: 1-38=5, 3-4=-21, 7-10=14, 12-13=12, 1-3=-21, 10-12=14  
Drag: 33-44=-10, 9-18=-10
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=2, 4-119=2, 7-119=9, 7-8=9, 8-10=3, 13-38=-12, 18-33=-18, 8-44=-6, 1-3=2, 10-12=9  
Horz: 1-38=-12, 3-4=-14, 7-10=21, 12-13=-5, 1-3=-14, 10-12=21  
Drag: 33-44=-10, 9-18=-10
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-7, 4-119=-7, 7-119=-15, 7-8=-15, 8-10=-25, 13-38=-20, 18-33=-30, 8-44=-10, 1-3=-7, 10-12=-15  
Horz: 1-38=14, 3-4=-13, 7-10=5, 12-13=3, 1-3=-13, 10-12=5  
Drag: 33-44=-10, 9-18=-10
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-15, 4-119=-15, 7-119=-7, 7-8=-7, 8-10=-17, 13-38=-20, 18-33=-30, 8-44=-10, 1-3=-15, 10-12=-7  
Horz: 1-38=-3, 3-4=-5, 7-10=13, 12-13=-14, 1-3=-5, 10-12=13  
Drag: 33-44=-10, 9-18=-10
- 18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 3-4=-20, 4-7=-20, 7-8=-20, 8-10=-30, 37-38=-20, 37-122=-60, 13-122=-20, 18-33=-110, 8-44=-10, 1-3=-20, 10-12=-20, 36-125=-40  
Drag: 33-44=-10, 9-18=-10
- 19) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 3-4=-20, 4-7=-20, 7-8=-20, 8-10=-30, 37-38=-20, 37-122=-60, 13-122=-20, 18-33=-110, 8-44=-10, 1-3=-20, 10-12=-20, 36-125=-40  
Drag: 33-44=-10, 9-18=-10
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-57, 4-7=-41, 7-8=-45, 8-10=-55, 37-38=-20, 37-122=-50, 13-122=-20, 18-33=-90, 8-44=-10, 1-3=-41, 10-12=-45, 36-125=-30  
Horz: 1-38=14, 3-4=7, 7-10=5, 12-13=4, 1-3=-9, 10-12=5  
Drag: 33-44=-10, 9-18=-10
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-45, 4-7=-41, 7-8=-57, 8-10=-67, 37-38=-20, 37-122=-50, 13-122=-20, 18-33=-90, 8-44=-10, 1-3=-45, 10-12=-41, 36-125=-30  
Horz: 1-38=-4, 3-4=-5, 7-10=-7, 12-13=-14, 1-3=-5, 10-12=9  
Drag: 33-44=-10, 9-18=-10
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-41, 4-119=-41, 7-119=-46, 7-8=-46, 8-10=-56, 37-38=-20, 37-122=-50, 13-122=-20, 18-33=-90, 8-44=-10, 1-3=-41, 10-12=-46, 36-125=-30  
Horz: 1-38=11, 3-4=-9, 7-10=4, 12-13=2, 1-3=-9, 10-12=4  
Drag: 33-44=-10, 9-18=-10
- 23) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-4=-46, 4-119=-46, 7-119=-41, 7-8=-41, 8-10=-51, 37-38=-20, 37-122=-50, 13-122=-20, 18-33=-90, 8-44=-10, 1-3=-46, 10-12=-41, 36-125=-30  
Horz: 1-38=-2, 3-4=-4, 7-10=9, 12-13=-11, 1-3=-4, 10-12=9  
Drag: 33-44=-10, 9-18=-10
- 24) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-4=-60, 4-7=-60, 7-8=-20, 8-10=-30, 13-38=-20, 18-33=-30, 8-44=-10, 1-3=-60, 10-12=-20  
Drag: 33-44=-10, 9-18=-10
- 25) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-4=-20, 4-7=-60, 7-8=-60, 8-10=-70, 13-38=-20, 18-33=-30, 8-44=-10, 1-3=-20, 10-12=-60  
Drag: 33-44=-10, 9-18=-10
- 26) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-4=-50, 4-7=-50, 7-8=-20, 8-10=-30, 37-38=-20, 37-122=-50, 13-122=-20, 18-33=-90, 8-44=-10, 1-3=-50, 10-12=-20, 36-125=-30  
Drag: 33-44=-10, 9-18=-10
- 27) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-4=-20, 4-7=-50, 7-8=-50, 8-10=-60, 37-38=-20, 37-122=-50, 13-122=-20, 18-33=-90, 8-44=-10, 1-3=-20, 10-12=-50, 36-125=-30  
Drag: 33-44=-10, 9-18=-10

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917592
NC1 111-R	AT02	HIP	2	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:34:11 2023 Page 1  
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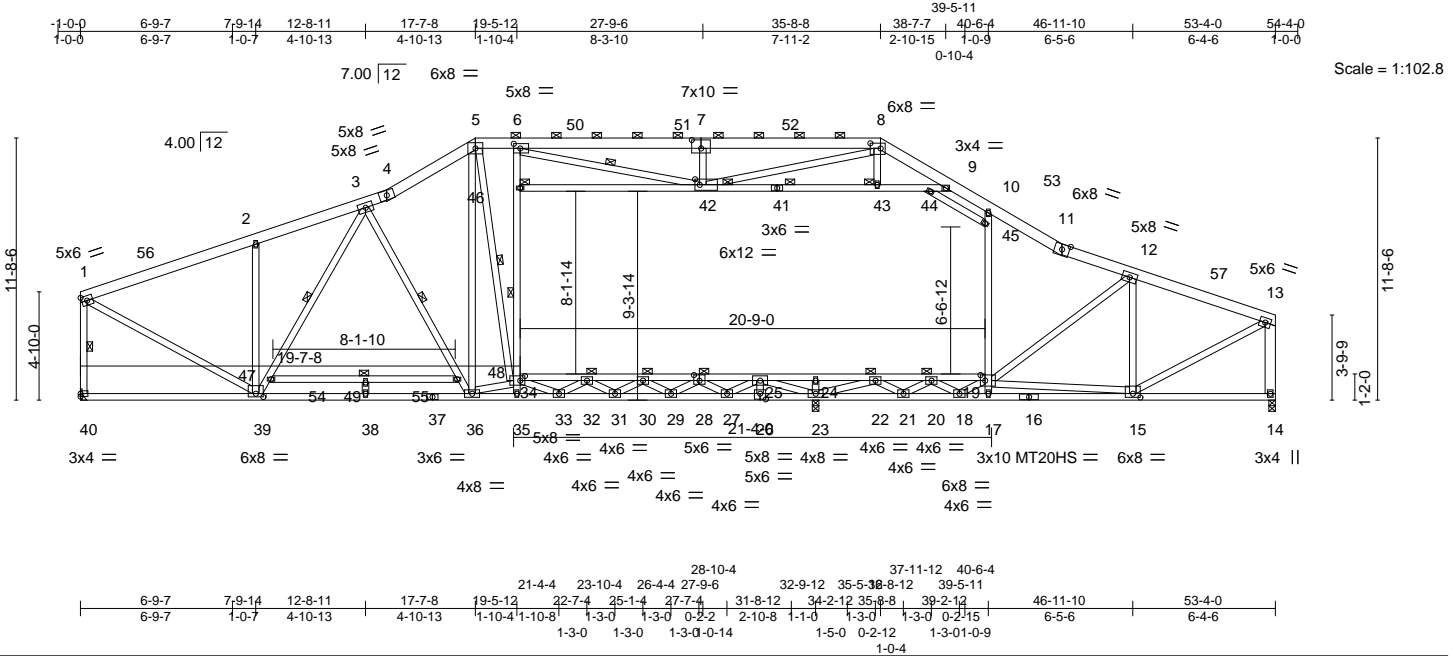


Plate Offsets (X,Y)-- [6:0-3-8,0-2-8], [7:0-5-0,0-4-8], [8:0-5-8,0-2-12], [15:0-4-0,0-2-0], [19:0-2-8,0-3-0], [26:0-3-0,0-3-0], [28:0-3-0,0-3-0], [34:0-2-8,0-2-8], [39:0-4-0,0-1-12], [42:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.89	Vert(LL) -0.42 36-38 >924 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.95	Vert(CT) -0.71 36-38 >549 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 1.00	Horz(CT) 0.09 14 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.12 35 >999 240	Weight: 519 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 8-11: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 3-1-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-2 max.): 5-8.
BOT CHORD 2x4 SP No.2 *Except* 37-40,26-37: 2x4 SP No.1, 19-28: 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 5-5-14 oc bracing.
WEBS 2x4 SP No.3 *Except* 13-14: 2x6 SP No.2, 6-35,9-41,10-17,41-46: 2x4 SP No.2	WEBS 1 Row at midpt 1-40, 5-34, 34-46, 42-43, 6-42, 3-36, 3-39, 47-48
	JOINTS 1 Brace at Jt(s): 42, 43, 46, 28, 32, 30, 22, 20

**REACTIONS.** (lb/size) 40=2041/Mechanical, 14=1866/0-3-8 (min. 0-2-4), 23=1356/0-3-8 (min. 0-2-7)  
 Max Horz 40=138(LC 11)  
 Max Grav 40=2160(LC 2), 14=1910(LC 2), 23=2078(LC 27)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-40=-2100/0, 4-5=-2741/0, 5-6=-2400/0, 6-50=-2820/219, 50-51=-2820/219, 7-51=-2820/219, 7-52=-2799/214, 8-52=-2799/214, 8-9=-1454/207, 9-53=-2317/0, 10-53=-2354/0, 10-11=-2600/0, 13-14=-1853/0, 1-56=-2292/0, 2-56=-2236/0, 2-3=-2261/0, 3-4=-2699/0, 11-12=-2637/0, 12-57=-2041/0, 13-57=-2119/0  
 BOT CHORD 38-39=0/2468, 37-38=0/2468, 36-37=0/2468, 35-36=0/3252, 33-35=0/3403, 31-33=0/4041, 29-31=0/3587, 27-29=0/2455, 26-27=-949/198, 23-26=-949/198, 21-23=-910/0, 18-21=-1711/1093, 17-18=-327/2256, 16-17=-261/2219, 15-16=-261/2219, 32-34=-1533/0, 30-32=-1563/47, 28-30=-982/763, 25-28=-159/1855, 24-25=0/5042, 22-24=0/5042, 20-22=0/2830, 19-20=-70/2451  
 WEBS 1-39=0/2424, 2-39=-380/126, 5-34=-87/524, 34-46=-732/209, 6-46=-610/229, 41-42=-1610/0, 41-43=-1610/0, 43-44=-1613/0, 9-44=-1361/0, 19-45=-409/181, 10-45=-349/293, 12-15=-1116/0, 13-15=0/2286, 7-42=-535/121, 6-42=-274/873, 8-42=0/1996, 34-36=-1114/119, 12-19=0/672, 15-19=-463/1683, 44-45=-296/22, 27-28=-1226/0, 33-34=-83/849, 32-33=-491/253, 31-32=-392/73, 30-31=-24/451, 29-30=-684/0, 28-29=0/761, 25-27=0/1624, 23-25=-2541/0, 22-23=-2058/0, 21-22=0/1003, 20-21=-966/8, 18-20=-115/792, 18-19=-646/78, 23-24=-494/0, 5-36=-32/910, 3-48=-309/129, 36-48=-307/121, 39-47=-782/0, 3-47=-756/0

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 17-7-8, Exterior(2) 17-7-8 to 21-10-7, Interior(1) 21-10-7 to 35-8-8, Exterior(2) 35-8-8 to 39-11-7, Interior(1) 39-11-7 to 53-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



Continued on page 2

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



Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917592
NC1 111-R	AT02	HIP	2	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

ID:JbnYVf1QbWGMVvS3eidP34zb6LG-OMhDoulCIP0Puk15mE\_LHumthzqt9W6SYzwxGzOU3Q  
8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:34:11 2023 Page 2

**NOTES-**

- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Ceiling dead load (5.0 psf) on member(s). 9-10, 10-11, 42-46, 42-43, 43-44, 9-44; Wall dead load (5.0psf) on member(s).34-46, 19-45, 10-45
- 9) 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, 25-28, 24-25, 22-24, 20-22, 19-20
- 10) Refer to girder(s) for truss to truss connections.
- 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) N/A
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

**LOAD CASE(S)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-60, 5-8=-60, 8-9=-60, 9-11=-70, 14-40=-20, 19-34=-30, 9-46=-10, 1-4=-60, 11-13=-60  
Drag: 34-46=-10, 10-19=-10
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-50, 5-8=-50, 8-9=-50, 9-11=-60, 14-40=-20, 19-34=-90, 9-46=-10, 54-55=-30, 1-4=-50, 11-13=-50  
Drag: 34-46=-10, 10-19=-10
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-11=-30, 14-40=-40, 19-34=-30, 9-46=-10, 54-55=-40, 1-4=-20, 11-13=-20  
Drag: 34-46=-10, 10-19=-10
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=12, 5-50=20, 8-50=15, 8-9=17, 9-53=11, 11-53=6, 14-40=-12, 19-34=-18, 9-46=-6, 1-56=22, 4-56=12, 11-13=12  
Horz: 1-40=13, 4-5=-24, 8-53=29, 11-53=24, 13-14=24, 1-56=-34, 4-56=-24, 11-13=24  
Drag: 34-46=-10, 10-19=-10
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=17, 5-52=15, 8-52=20, 8-9=12, 9-11=6, 14-40=-12, 19-34=-18, 9-46=-6, 1-4=12, 11-57=12, 13-57=22  
Horz: 1-40=-24, 4-5=-29, 8-11=24, 13-14=-13, 1-4=-24, 11-57=24, 13-57=34  
Drag: 34-46=-10, 10-19=-10
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-44, 5-8=-29, 8-9=-44, 9-11=-54, 14-40=-20, 19-34=-30, 9-46=-10, 1-4=-32, 11-13=-32  
Horz: 1-40=-15, 4-5=24, 8-11=-24, 13-14=-22, 1-4=12, 11-13=-12  
Drag: 34-46=-10, 10-19=-10
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-44, 5-8=-29, 8-9=-44, 9-11=-54, 14-40=-20, 19-34=-30, 9-46=-10, 1-4=-32, 11-13=-32  
Horz: 1-40=22, 4-5=24, 8-11=-24, 13-14=15, 1-4=12, 11-13=-12  
Drag: 34-46=-10, 10-19=-10
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-13, 5-8=9, 8-9=3, 9-11=-3, 14-40=-12, 19-34=-18, 9-46=-6, 1-4=9, 11-13=4  
Horz: 1-40=9, 4-5=1, 8-11=15, 13-14=14, 1-4=-21, 11-13=16  
Drag: 34-46=-10, 10-19=-10
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=3, 5-8=9, 8-9=-13, 9-11=-19, 14-40=-12, 19-34=-18, 9-46=-6, 1-4=4, 11-13=9  
Horz: 1-40=-14, 4-5=15, 8-11=-1, 13-14=-9, 1-4=-16, 11-13=21  
Drag: 34-46=-10, 10-19=-10
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-30, 5-8=-7, 8-9=-14, 9-11=-24, 14-40=-20, 19-34=-30, 9-46=-10, 1-4=-7, 11-13=-13  
Horz: 1-40=18, 4-5=10, 8-11=6, 13-14=5, 1-4=-13, 11-13=7  
Drag: 34-46=-10, 10-19=-10
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-14, 5-8=-7, 8-9=-30, 9-11=-40, 14-40=-20, 19-34=-30, 9-46=-10, 1-4=-13, 11-13=-7  
Horz: 1-40=-5, 4-5=-6, 8-11=-10, 13-14=-18, 1-4=-7, 11-13=13  
Drag: 34-46=-10, 10-19=-10
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=9, 5-51=9, 8-51=2, 8-9=2, 9-11=-4, 14-40=-12, 19-34=-18, 9-46=-6, 1-4=9, 11-13=2  
Horz: 1-40=5, 4-5=-21, 8-11=14, 13-14=12, 1-4=-21, 11-13=14  
Drag: 34-46=-10, 10-19=-10
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=2, 5-51=2, 8-51=9, 8-9=9, 9-11=3, 14-40=-12, 19-34=-18, 9-46=-6, 1-4=2, 11-13=9  
Horz: 1-40=-12, 4-5=-14, 8-11=21, 13-14=-5, 1-4=-14, 11-13=21  
Drag: 34-46=-10, 10-19=-10
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917592
NC1 111-R	AT02	HIP	2	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:34:11 2023 Page 3  
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**LOAD CASE(S)**

- Uniform Loads (plf)
  - Vert: 4-5=9, 5-51=9, 8-51=2, 8-9=2, 9-11=4, 14-40=-12, 19-34=-18, 9-46=-6, 1-4=9, 11-13=2
  - Horz: 1-40=5, 4-5=-21, 8-11=14, 13-14=12, 1-4=-21, 11-13=14
  - Drag: 34-46=-10, 10-19=-10
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=2, 5-51=2, 8-51=9, 8-9=9, 9-11=3, 14-40=-12, 19-34=-18, 9-46=-6, 1-4=2, 11-13=9
    - Horz: 1-40=-12, 4-5=-14, 8-11=21, 13-14=-5, 1-4=-14, 11-13=21
    - Drag: 34-46=-10, 10-19=-10
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=-7, 5-51=-7, 8-51=-15, 8-9=-15, 9-11=-25, 14-40=-20, 19-34=-30, 9-46=-10, 1-4=-7, 11-13=-15
    - Horz: 1-40=14, 4-5=-13, 8-11=5, 13-14=3, 1-4=-13, 11-13=5
    - Drag: 34-46=-10, 10-19=-10
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=-15, 5-51=-15, 8-51=-7, 8-9=-7, 9-11=-17, 14-40=-20, 19-34=-30, 9-46=-10, 1-4=-15, 11-13=-7
    - Horz: 1-40=-3, 4-5=-5, 8-11=13, 13-14=-14, 1-4=-5, 11-13=13
    - Drag: 34-46=-10, 10-19=-10
- 18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-11=-30, 14-40=-20, 19-34=-110, 9-46=-10, 54-55=-40, 1-4=-20, 11-13=-20
    - Drag: 34-46=-10, 10-19=-10
- 19) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-11=-30, 14-40=-20, 19-34=-110, 9-46=-10, 54-55=-40, 1-4=-20, 11-13=-20
    - Drag: 34-46=-10, 10-19=-10
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=-57, 5-8=-41, 8-9=-45, 9-11=-55, 14-40=-20, 19-34=-90, 9-46=-10, 54-55=-30, 1-4=-41, 11-13=-45
    - Horz: 1-40=14, 4-5=7, 8-11=5, 13-14=4, 1-4=-9, 11-13=5
    - Drag: 34-46=-10, 10-19=-10
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=-45, 5-8=-41, 8-9=-57, 9-11=-67, 14-40=-20, 19-34=-90, 9-46=-10, 54-55=-30, 1-4=-45, 11-13=-41
    - Horz: 1-40=-4, 4-5=-5, 8-11=-7, 13-14=-14, 1-4=-5, 11-13=9
    - Drag: 34-46=-10, 10-19=-10
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=-41, 5-51=-41, 8-51=-46, 8-9=-46, 9-11=-56, 14-40=-20, 19-34=-90, 9-46=-10, 54-55=-30, 1-4=-41, 11-13=-46
    - Horz: 1-40=11, 4-5=-9, 8-11=4, 13-14=2, 1-4=-9, 11-13=4
    - Drag: 34-46=-10, 10-19=-10
- 23) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=-46, 5-51=-46, 8-51=-41, 8-9=-41, 9-11=-51, 14-40=-20, 19-34=-90, 9-46=-10, 54-55=-30, 1-4=-46, 11-13=-41
    - Horz: 1-40=-2, 4-5=-4, 8-11=9, 13-14=-11, 1-4=-4, 11-13=9
    - Drag: 34-46=-10, 10-19=-10
- 24) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 4-5=-60, 5-8=-60, 8-9=-20, 9-11=-30, 14-40=-20, 19-34=-30, 9-46=-10, 1-4=-60, 11-13=-20
    - Drag: 34-46=-10, 10-19=-10
- 25) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 4-5=-20, 5-8=-60, 8-9=-60, 9-11=-70, 14-40=-20, 19-34=-30, 9-46=-10, 1-4=-20, 11-13=-60
    - Drag: 34-46=-10, 10-19=-10
- 26) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 4-5=-50, 5-8=-50, 8-9=-20, 9-11=-30, 14-40=-20, 19-34=-90, 9-46=-10, 54-55=-30, 1-4=-50, 11-13=-20
    - Drag: 34-46=-10, 10-19=-10
- 27) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 4-5=-20, 5-8=-50, 8-9=-50, 9-11=-60, 14-40=-20, 19-34=-90, 9-46=-10, 54-55=-30, 1-4=-20, 11-13=-50
    - Drag: 34-46=-10, 10-19=-10

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Edenton, NC 27932





Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917593
NC1 111-R	AT03	HIP	4	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

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**NOTES-**

- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 17-7-8, Exterior(2) 17-7-8 to 21-10-7, Interior(1) 21-10-7 to 35-8-8, Exterior(2) 35-8-8 to 39-11-7, Interior(1) 39-11-7 to 53-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Ceiling dead load (5.0 psf) on member(s). 9-10, 10-11, 43-47, 43-44, 44-45, 9-45; Wall dead load (5.0psf) on member(s).35-47, 19-46, 10-46
- 9) 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, 26-29, 24-26, 22-24, 20-22, 19-20
- 10) WARNING: Required bearing size at joint(s) 14 greater than input bearing size.
- 11) Refer to girder(s) for truss to truss connections.
- 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) N/A
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Attic room checked for L/360 deflection.
- 16) 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)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 4-5=-60, 5-8=-60, 8-9=-60, 9-10=-70, 14-41=-20, 19-35=-30, 9-47=-10, 1-4=-60
    - Drag: 35-47=-10, 10-19=-10
  - Trapezoidal Loads (plf)
    - Vert: 10=-120(F=-50)-to-11=-161(F=-91), 11=-151(F=-91)-to-13=-267(F=-207)
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 4-5=-50, 5-8=-50, 8-9=-50, 9-10=-60, 14-41=-20, 19-35=-90, 9-47=-10, 55-56=-30, 1-4=-50
    - Drag: 35-47=-10, 10-19=-10
  - Trapezoidal Loads (plf)
    - Vert: 10=-110(F=-50)-to-11=-151(F=-91), 11=-141(F=-91)-to-13=-257(F=-207)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
  - Uniform Loads (plf)
    - Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-10=-30, 14-41=-40, 19-35=-30, 9-47=-10, 55-56=-40, 1-4=-20
    - Drag: 35-47=-10, 10-19=-10
  - Trapezoidal Loads (plf)
    - Vert: 10=-80(F=-50)-to-11=-121(F=-91), 11=-111(F=-91)-to-13=-227(F=-207)
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=12, 5-51=20, 8-51=15, 8-9=17, 9-54=11, 10-54=6, 14-41=-12, 19-35=-18, 9-47=-6, 1-57=22, 4-57=12
    - Horz: 1-41=13, 4-5=-24, 8-54=29, 11-54=24, 13-14=24, 1-57=-34, 4-57=-24, 11-13=24
    - Drag: 35-47=-10, 10-19=-10
  - Trapezoidal Loads (plf)
    - Vert: 10=-44(F=-50)-to-11=-85(F=-91), 11=-79(F=-91)-to-13=-195(F=-207)
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=17, 5-53=15, 8-53=20, 8-9=12, 9-10=6, 14-41=-12, 19-35=-18, 9-47=-6, 1-4=12
    - Horz: 1-41=-24, 4-5=-29, 8-11=24, 13-14=-13, 1-4=-24, 11-58=24, 13-58=34
    - Drag: 35-47=-10, 10-19=-10
  - Trapezoidal Loads (plf)
    - Vert: 10=-44(F=-50)-to-11=-85(F=-91), 11=-79(F=-91)-to-58=-157(F=-170), 58=-148(F=-170)-to-13=-185(F=-207)
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=-44, 5-8=-29, 8-9=-44, 9-10=-54, 14-41=-20, 19-35=-30, 9-47=-10, 1-4=-32
    - Horz: 1-41=-15, 4-5=24, 8-11=-24, 13-14=-22, 1-4=12, 11-13=-12
    - Drag: 35-47=-10, 10-19=-10
  - Trapezoidal Loads (plf)
    - Vert: 10=-104(F=-50)-to-11=-145(F=-91), 11=-123(F=-91)-to-13=-239(F=-207)
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=-44, 5-8=-29, 8-9=-44, 9-10=-54, 14-41=-20, 19-35=-30, 9-47=-10, 1-4=-32
    - Horz: 1-41=22, 4-5=24, 8-11=-24, 13-14=15, 1-4=12, 11-13=-12
    - Drag: 35-47=-10, 10-19=-10
  - Trapezoidal Loads (plf)
    - Vert: 10=-104(F=-50)-to-11=-145(F=-91), 11=-123(F=-91)-to-13=-239(F=-207)
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 4-5=-13, 5-8=9, 8-9=3, 9-10=-3, 14-41=-12, 19-35=-18, 9-47=-6, 1-4=9
    - Horz: 1-41=9, 4-5=1, 8-11=15, 13-14=14, 1-4=-21, 11-13=16
    - Drag: 35-47=-10, 10-19=-10
  - Trapezoidal Loads (plf)
    - Vert: 10=-53(F=-50)-to-11=-94(F=-91), 11=-87(F=-91)-to-13=-203(F=-207)
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917593
NC1 111-R	AT03	HIP	4	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:34:30 2023 Page 3  
 ID:JbnYVf1QbWGMvS3eidP34zb6LG-K0K0oOX6HFPJGf\_kNkqYu398eJEqndvq04R6gzOU37

**LOAD CASE(S)**

- Uniform Loads (plf)  
 Vert: 4-5=3, 5-8=9, 8-9=-13, 9-10=-19, 14-41=-12, 19-35=-18, 9-47=-6, 1-4=4  
 Horz: 1-41=-14, 4-5=-15, 8-11=-1, 13-14=-9, 1-4=-16, 11-13=21  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-69(F=-50)-to-11=-110(F=-91), 11=-82(F=-91)-to-13=-198(F=-207)
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 4-5=-30, 5-8=-7, 8-9=-14, 9-10=-24, 14-41=-20, 19-35=-30, 9-47=-10, 1-4=-7  
 Horz: 1-41=18, 4-5=10, 8-11=6, 13-14=5, 1-4=-13, 11-13=7  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-74(F=-50)-to-11=-115(F=-91), 11=-104(F=-91)-to-13=-220(F=-207)
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 4-5=-14, 5-8=-7, 8-9=-30, 9-10=-40, 14-41=-20, 19-35=-30, 9-47=-10, 1-4=-13  
 Horz: 1-41=-5, 4-5=-6, 8-11=-10, 13-14=-18, 1-4=-7, 11-13=13  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-90(F=-50)-to-11=-131(F=-91), 11=-98(F=-91)-to-13=-214(F=-207)
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 4-5=9, 5-52=9, 8-52=2, 8-9=2, 9-10=-4, 14-41=-12, 19-35=-18, 9-47=-6, 1-4=9  
 Horz: 1-41=5, 4-5=-21, 8-11=14, 13-14=12, 1-4=-21, 11-13=14  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-54(F=-50)-to-11=-95(F=-91), 11=-89(F=-91)-to-13=-205(F=-207)
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 4-5=2, 5-52=2, 8-52=9, 8-9=9, 9-10=3, 14-41=-12, 19-35=-18, 9-47=-6, 1-4=2  
 Horz: 1-41=-12, 4-5=-14, 8-11=21, 13-14=-5, 1-4=-14, 11-13=21  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-47(F=-50)-to-11=-88(F=-91), 11=-82(F=-91)-to-13=-198(F=-207)
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 4-5=9, 5-52=9, 8-52=2, 8-9=2, 9-10=-4, 14-41=-12, 19-35=-18, 9-47=-6, 1-4=9  
 Horz: 1-41=5, 4-5=-21, 8-11=14, 13-14=12, 1-4=-21, 11-13=14  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-54(F=-50)-to-11=-95(F=-91), 11=-89(F=-91)-to-13=-205(F=-207)
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 4-5=2, 5-52=2, 8-52=9, 8-9=9, 9-10=3, 14-41=-12, 19-35=-18, 9-47=-6, 1-4=2  
 Horz: 1-41=-12, 4-5=-14, 8-11=21, 13-14=-5, 1-4=-14, 11-13=21  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-47(F=-50)-to-11=-88(F=-91), 11=-82(F=-91)-to-13=-198(F=-207)
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 4-5=-7, 5-52=-7, 8-52=-15, 8-9=-15, 9-10=-25, 14-41=-20, 19-35=-30, 9-47=-10, 1-4=-7  
 Horz: 1-41=14, 4-5=-13, 8-11=5, 13-14=3, 1-4=-13, 11-13=5  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-75(F=-50)-to-11=-116(F=-91), 11=-106(F=-91)-to-13=-222(F=-207)
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 4-5=-15, 5-52=-15, 8-52=-7, 8-9=-7, 9-10=-17, 14-41=-20, 19-35=-30, 9-47=-10, 1-4=-15  
 Horz: 1-41=-3, 4-5=-5, 8-11=13, 13-14=-14, 1-4=-5, 11-13=13  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-67(F=-50)-to-11=-108(F=-91), 11=-98(F=-91)-to-13=-214(F=-207)
- 18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-10=-30, 14-41=-20, 19-35=-110, 9-47=-10, 55-56=-40, 1-4=-20  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-80(F=-50)-to-11=-121(F=-91), 11=-111(F=-91)-to-13=-227(F=-207)
- 19) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-10=-30, 14-41=-20, 19-35=-110, 9-47=-10, 55-56=-40, 1-4=-20  
 Drag: 35-47=-10, 10-19=-10
- Trapezoidal Loads (plf)  
 Vert: 10=-80(F=-50)-to-11=-121(F=-91), 11=-111(F=-91)-to-13=-227(F=-207)

Continued on page 4

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917593
NC1 111-R	AT03	HIP	4	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:34:30 2023 Page 4  
ID:JbnYVf1QbWGMvS3eidP34zb6LG-K0KOoOX6HFPJGf\_kNkqoYu398eJEqndvq04R6gzOU37

**LOAD CASE(S)**

20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 4-5=-57, 5-8=-41, 8-9=-45, 9-10=-55, 14-41=-20, 19-35=-90, 9-47=-10, 55-56=-30, 1-4=-41

Horz: 1-41=14, 4-5=7, 8-11=5, 13-14=4, 1-4=-9, 11-13=5

Drag: 35-47=-10, 10-19=-10

Trapezoidal Loads (plf)

Vert: 10=-105(F=-50)-to-11=-146(F=-91), 11=-136(F=-91)-to-13=-252(F=-207)

21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 4-5=-45, 5-8=-41, 8-9=-57, 9-10=-67, 14-41=-20, 19-35=-90, 9-47=-10, 55-56=-30, 1-4=-45

Horz: 1-41=-4, 4-5=-5, 8-11=-7, 13-14=-14, 1-4=-5, 11-13=9

Drag: 35-47=-10, 10-19=-10

Trapezoidal Loads (plf)

Vert: 10=-117(F=-50)-to-11=-158(F=-91), 11=-132(F=-91)-to-13=-248(F=-207)

22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 4-5=-41, 5-52=-41, 8-52=-46, 8-9=-46, 9-10=-56, 14-41=-20, 19-35=-90, 9-47=-10, 55-56=-30, 1-4=-41

Horz: 1-41=11, 4-5=-9, 8-11=4, 13-14=2, 1-4=-9, 11-13=4

Drag: 35-47=-10, 10-19=-10

Trapezoidal Loads (plf)

Vert: 10=-106(F=-50)-to-11=-147(F=-91), 11=-137(F=-91)-to-13=-253(F=-207)

23) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 4-5=-46, 5-52=-46, 8-52=-41, 8-9=-41, 9-10=-51, 14-41=-20, 19-35=-90, 9-47=-10, 55-56=-30, 1-4=-46

Horz: 1-41=-2, 4-5=-4, 8-11=9, 13-14=-11, 1-4=-4, 11-13=9

Drag: 35-47=-10, 10-19=-10

Trapezoidal Loads (plf)

Vert: 10=-101(F=-50)-to-11=-142(F=-91), 11=-132(F=-91)-to-13=-248(F=-207)

24) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 4-5=-60, 5-8=-60, 8-9=-20, 9-10=-30, 14-41=-20, 19-35=-30, 9-47=-10, 1-4=-60

Drag: 35-47=-10, 10-19=-10

Trapezoidal Loads (plf)

Vert: 10=-80(F=-50)-to-11=-121(F=-91), 11=-111(F=-91)-to-13=-227(F=-207)

25) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 4-5=-20, 5-8=-60, 8-9=-60, 9-10=-70, 14-41=-20, 19-35=-30, 9-47=-10, 1-4=-20

Drag: 35-47=-10, 10-19=-10

Trapezoidal Loads (plf)

Vert: 10=-120(F=-50)-to-11=-161(F=-91), 11=-151(F=-91)-to-13=-267(F=-207)

26) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 4-5=-50, 5-8=-50, 8-9=-20, 9-10=-30, 14-41=-20, 19-35=-90, 9-47=-10, 55-56=-30, 1-4=-50

Drag: 35-47=-10, 10-19=-10

Trapezoidal Loads (plf)

Vert: 10=-80(F=-50)-to-11=-121(F=-91), 11=-111(F=-91)-to-13=-227(F=-207)

27) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 4-5=-20, 5-8=-50, 8-9=-50, 9-10=-60, 14-41=-20, 19-35=-90, 9-47=-10, 55-56=-30, 1-4=-20

Drag: 35-47=-10, 10-19=-10

Trapezoidal Loads (plf)

Vert: 10=-110(F=-50)-to-11=-151(F=-91), 11=-141(F=-91)-to-13=-257(F=-207)

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917594
NC1 111-R	AT04	HIP	2	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:34:51 2023 Page 1  
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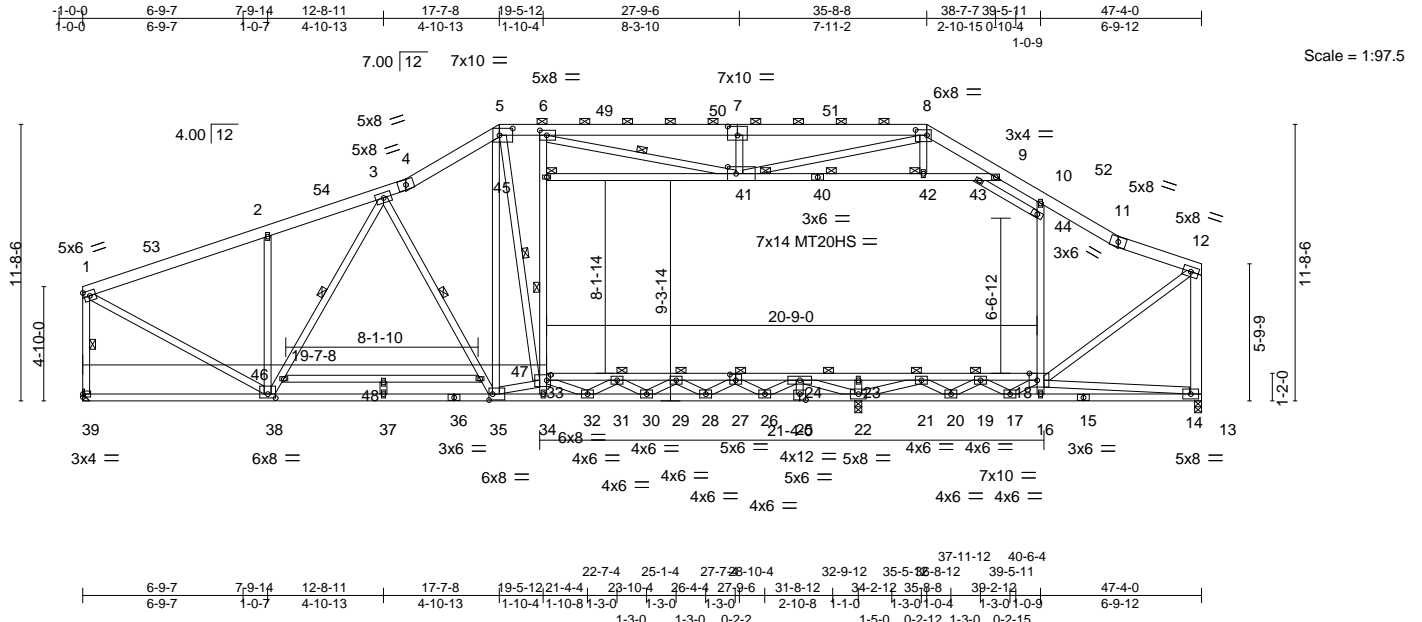
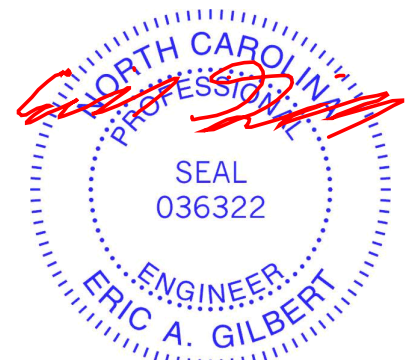


Plate Offsets (X,Y)--	[5:0-6-12,0-3-8], [6:0-3-8,0-2-8], [7:0-5-0,0-4-8], [8:0-5-12,0-2-12], [18:0-4-0,Edge], [25:0-3-0,0-3-0], [27:0-3-0,0-3-0], [33:0-2-0,0-2-12], [35:0-1-12,0-3-0], [38:0-4-0,0-2-0], [41:0-4-4,0-3-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.98	Vert(LL) -0.55	34	>717	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.94	Vert(CT) -1.02	34	>384	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.95	Horz(CT) 0.10	22	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.22	34	>999	240		
							Weight: 482 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 8-11: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 4-1-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-8 max.): 5-8.
BOT CHORD 2x4 SP No.2 *Except* 27-33,25-36,18-27: 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 3-10-8 oc bracing: 20-22 3-11-11 oc bracing: 17-20 2-10-5 oc bracing: 16-17 3-1-12 oc bracing: 14-16. 3-3-0 oc bracing: 31-33 3-9-0 oc bracing: 29-31 4-7-0 oc bracing: 27-29 6-0-0 oc bracing: 21-27 10-0-0 oc bracing: 19-21, 18-19
WEBS 2x4 SP No.3 *Except* 12-13: 2x6 SP No.2, 6-34,9-40,14-18,40-45: 2x4 SP No.2 10-16: 2x4 SP No.1	WEBS 1 Row at midpt 1-39, 5-33, 33-45, 41-42, 6-41, 3-35, 3-38 1 Brace at Jt(s): 41, 42, 45, 27, 31, 29, 21, 19
REACTIONS. (lb/size) 39=1966/Mechanical, 13=1899/0-3-8 (min. 0-2-5), 22=918/0-3-8 (min. 0-2-2) Max Horz 39=199(LC 9) Max Grav 39=2031(LC 2), 13=1960(LC 2), 22=1824(LC 18)	

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-39=-1963/0, 4-5=-2516/0, 5-6=-2016/0, 6-49=-2711/222, 49-50=-2711/222, 7-50=-2711/222, 7-51=-2688/217, 8-51=-2688/217, 8-9=-1247/211, 9-52=-1579/57, 10-52=-1616/48, 10-11=-2018/0, 12-13=-2204/0, 1-53=-2137/0, 2-53=-2081/0, 2-54=-2114/0, 3-54=-2026/0, 3-4=-2485/0, 11-12=-2082/0
BOT CHORD 37-38=0/2286, 36-37=0/2286, 35-36=0/2286, 34-35=0/4833, 32-34=0/5108, 30-32=0/5331, 28-30=0/4554, 26-28=0/3091, 25-26=-21/408, 22-25=-21/408, 20-22=-1952/0, 17-20=-2121/0, 16-17=-3084/0, 15-16=-2666/0, 14-15=-2666/0, 31-33=-3455/0, 29-31=-3064/0, 27-29=-2041/0, 24-27=-307/611, 23-24=0/4281, 21-23=0/4281, 19-21=0/3912, 18-19=0/4567
WEBS 1-38=0/2253, 2-38=-388/125, 5-33=-842/54, 33-45=-591/213, 6-45=-469/232, 40-41=-1363/0, 40-42=-1363/0, 42-43=-1359/0, 9-43=-892/0, 16-18=0/359, 18-44=-678/171, 10-44=-448/201, 7-41=-575/121, 6-41=-262/952, 8-41=-6/2016, 33-35=-2928/0, 12-18=0/2231, 14-18=-6/2712, 43-44=-637/0, 26-27=-1390/0, 32-33=-204/650, 31-32=-328/417, 30-31=-518/63, 29-30=-14/568, 28-29=-850/0, 27-28=0/931, 24-26=0/1801, 22-24=-2831/0, 21-22=-752/231, 19-20=-117/253, 17-19=-670/0, 17-18=-5/522, 22-23=-462/0, 5-35=0/1587, 3-47=-326/128, 35-47=-325/120, 38-46=-721/0, 3-46=-723/0



NOTES-  
 1) Unbalanced roof live loads have been considered for this design. April 21, 2023

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917594
NC1 111-R	AT04	HIP	2	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:34:51 2023 Page 2  
ID:JbnYVf1QbWGMVYs3eidP34zb6LG-D25KCZnIKi3kHt4n6eikvKQg55UKFFG?fnf2KyzOU2o

**NOTES-**

- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 17-7-8, Exterior(2) 17-7-8 to 21-10-7, Interior(1) 21-10-7 to 35-8-8, Exterior(2) 35-8-8 to 39-11-7, Interior(1) 39-11-7 to 47-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Ceiling dead load (5.0 psf) on member(s). 9-10, 10-11, 41-45, 41-42, 42-43, 9-43; Wall dead load (5.0psf) on member(s).33-45, 18-44, 10-44
- 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 31-33, 29-31, 27-29, 24-27, 23-24, 21-23, 19-21, 18-19
- 10) Refer to girder(s) for truss to truss connections.
- 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) N/A
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

**LOAD CASE(S)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-60, 5-8=-60, 8-9=-60, 9-11=-70, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-60, 11-12=-60  
Drag: 33-45=-10, 10-18=-10
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-50, 5-8=-50, 8-9=-50, 9-11=-60, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-50, 4-54=-80, 11-12=-50  
Drag: 33-45=-10, 10-18=-10
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-11=-30, 13-39=-40, 18-33=-30, 9-45=-10, 1-54=-20, 4-54=-60, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=12, 5-49=20, 8-49=15, 8-9=17, 9-52=11, 11-52=6, 13-39=-12, 18-33=-18, 9-45=-6, 1-53=22, 4-53=12, 11-12=12  
Horz: 1-39=13, 4-5=-24, 8-52=29, 11-52=24, 12-13=24, 1-53=-34, 4-53=-24, 11-12=24  
Drag: 33-45=-10, 10-18=-10
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=17, 5-51=15, 8-51=20, 8-9=12, 9-11=6, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=12, 11-12=22  
Horz: 1-39=-24, 4-5=-29, 8-11=24, 12-13=-13, 1-4=-24, 11-12=34  
Drag: 33-45=-10, 10-18=-10
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-44, 5-8=-29, 8-9=-44, 9-11=-54, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-32, 11-12=-32  
Horz: 1-39=-15, 4-5=24, 8-11=-24, 12-13=-22, 1-4=12, 11-12=-12  
Drag: 33-45=-10, 10-18=-10
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-44, 5-8=-29, 8-9=-44, 9-11=-54, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-32, 11-12=-32  
Horz: 1-39=22, 4-5=24, 8-11=-24, 12-13=15, 1-4=12, 11-12=-12  
Drag: 33-45=-10, 10-18=-10
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-13, 5-8=9, 8-9=3, 9-11=-3, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=9, 11-12=4  
Horz: 1-39=9, 4-5=1, 8-11=15, 12-13=14, 1-4=-21, 11-12=16  
Drag: 33-45=-10, 10-18=-10
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=3, 5-8=9, 8-9=-13, 9-11=-19, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=4, 11-12=5  
Horz: 1-39=-14, 4-5=-15, 8-11=1, 12-13=-9, 1-4=-16, 11-12=21  
Drag: 33-45=-10, 10-18=-10
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-30, 5-8=-7, 8-9=-14, 9-11=-24, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-7, 11-12=-13  
Horz: 1-39=18, 4-5=10, 8-11=6, 12-13=5, 1-4=-13, 11-12=7  
Drag: 33-45=-10, 10-18=-10
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-14, 5-8=-7, 8-9=-30, 9-11=-40, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-13, 11-12=-7  
Horz: 1-39=-5, 4-5=-6, 8-11=-10, 12-13=-18, 1-4=-7, 11-12=13  
Drag: 33-45=-10, 10-18=-10
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=9, 5-50=9, 8-50=2, 8-9=2, 9-11=-4, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=9, 11-12=2  
Horz: 1-39=5, 4-5=-21, 8-11=14, 12-13=12, 1-4=-21, 11-12=14  
Drag: 33-45=-10, 10-18=-10
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917594
NC1 111-R	AT04	HIP	2	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:34:51 2023 Page 3  
ID:JbnYVf1QbWGMYS3eidP34zb6LG-D25KCZnIKi3kH4n6eikvKQg55UKFFG?fnf2KyzOU2o

### LOAD CASE(S)

- Uniform Loads (plf)  
Vert: 4-5=2, 5-50=2, 8-50=9, 8-9=9, 9-11=3, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=2, 11-12=9  
Horz: 1-39=-12, 4-5=-14, 8-11=21, 12-13=-5, 1-4=-14, 11-12=21  
Drag: 33-45=-10, 10-18=-10
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=9, 5-50=9, 8-50=2, 8-9=2, 9-11=-4, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=9, 11-12=2  
Horz: 1-39=5, 4-5=-21, 8-11=14, 12-13=12, 1-4=-21, 11-12=14  
Drag: 33-45=-10, 10-18=-10
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=2, 5-50=2, 8-50=9, 8-9=9, 9-11=3, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=2, 11-12=9  
Horz: 1-39=-12, 4-5=-14, 8-11=21, 12-13=-5, 1-4=-14, 11-12=21  
Drag: 33-45=-10, 10-18=-10
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-7, 5-50=-7, 8-50=-15, 8-9=-15, 9-11=-25, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-7, 11-12=-15  
Horz: 1-39=14, 4-5=-13, 8-11=5, 12-13=3, 1-4=-13, 11-12=5  
Drag: 33-45=-10, 10-18=-10
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-15, 5-50=-15, 8-50=-7, 8-9=-7, 9-11=-17, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-15, 11-12=-7  
Horz: 1-39=3, 4-5=-5, 8-11=13, 12-13=-14, 1-4=-5, 11-12=13  
Drag: 33-45=-10, 10-18=-10
- 18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-11=-30, 13-39=-20, 18-33=-110, 9-45=-10, 1-54=-20, 4-54=-60, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 19) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-11=-30, 13-39=-20, 18-33=-110, 9-45=-10, 1-54=-20, 4-54=-60, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-57, 5-8=-41, 8-9=-45, 9-11=-55, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-41, 4-54=-71, 11-12=-45  
Horz: 1-39=14, 4-5=7, 8-11=5, 12-13=4, 1-4=-9, 11-12=5  
Drag: 33-45=-10, 10-18=-10
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-45, 5-8=-41, 8-9=-57, 9-11=-67, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-45, 4-54=-75, 11-12=-41  
Horz: 1-39=-4, 4-5=-5, 8-11=-7, 12-13=14, 1-4=-5, 11-12=9  
Drag: 33-45=-10, 10-18=-10
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-41, 5-50=-41, 8-50=-46, 8-9=-46, 9-11=-56, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-41, 4-54=-71, 11-12=-46  
Horz: 1-39=11, 4-5=-9, 8-11=4, 12-13=2, 1-4=-9, 11-12=4  
Drag: 33-45=-10, 10-18=-10
- 23) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-46, 5-50=-46, 8-50=-41, 8-9=-41, 9-11=-51, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-46, 4-54=-76, 11-12=-41  
Horz: 1-39=-2, 4-5=-4, 8-11=9, 12-13=-11, 1-4=-4, 11-12=9  
Drag: 33-45=-10, 10-18=-10
- 24) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-60, 5-8=-60, 8-9=-20, 9-11=-30, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-60, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 25) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-60, 8-9=-60, 9-11=-70, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-20, 11-12=-60  
Drag: 33-45=-10, 10-18=-10
- 26) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-50, 5-8=-50, 8-9=-20, 9-11=-30, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-50, 4-54=-80, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 27) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-50, 8-9=-50, 9-11=-60, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-20, 4-54=-50, 11-12=-50  
Drag: 33-45=-10, 10-18=-10

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818 Soundside Road  
Edenton, NC 27932

Job NC1 111-R	Truss AT05	Truss Type HIP	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111	157917595
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Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:03 2023 Page 1  
ID:JbnYVf1QbWGMVvs3eidP34zb6LG-sMqtjgwpWNa1jj?4p9wYOSwJPxas3g3mPeZgmGzOU2c

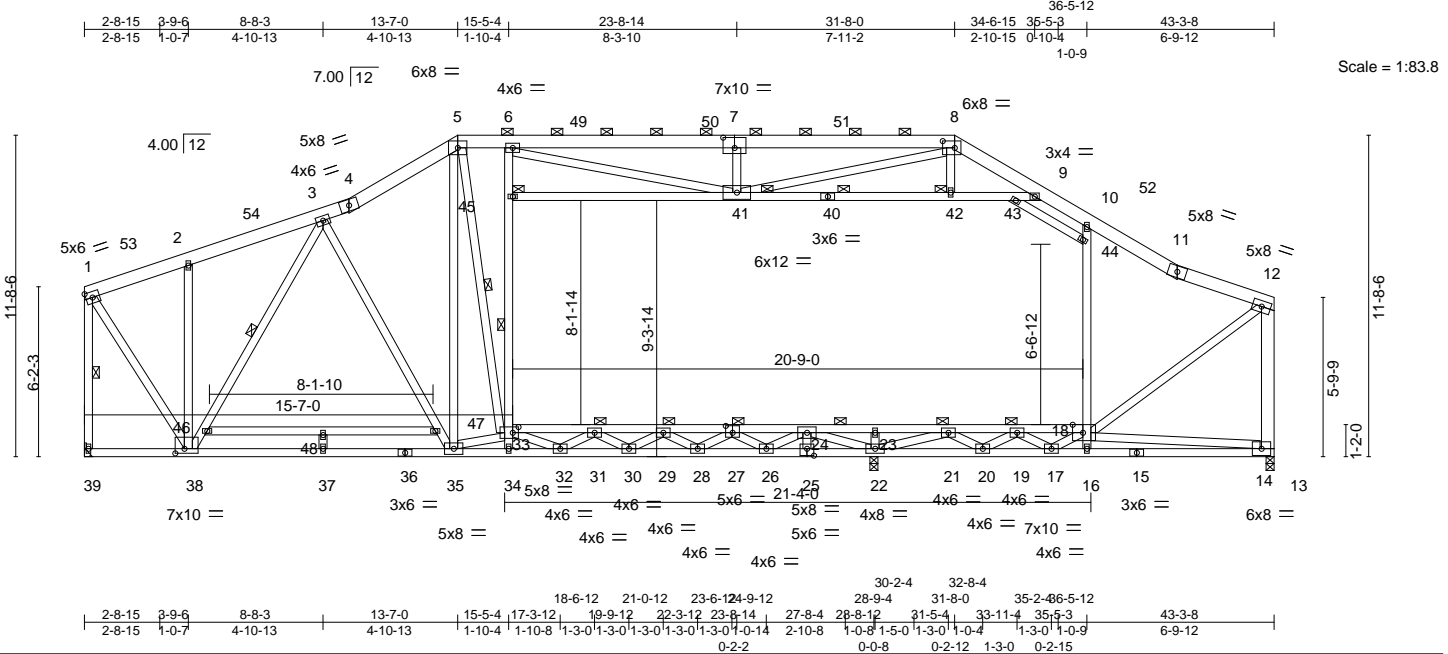


Plate Offsets (X,Y)-- [7:0-5-0,0-4-8], [8:0-5-4,0-3-0], [18:0-4-8,Edge], [25:0-3-0,0-3-0], [27:0-3-0,0-3-0], [33:0-2-8,0-2-8], [38:0-4-0,0-2-0]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.96	Vert(LL)	-0.40	31-33	>866	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.71	31-33	>486		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.96	Horz(CT)	0.08	22	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.15	34	>999		
								Weight: 465 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-3 max.); 5-8.
BOT CHORD 2x4 SP No.2 *Except* 25-36: 2x4 SP No.1, 18-27: 2x4 SP S5	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 4-9-4 oc bracing: 20-22 4-11-14 oc bracing: 17-20 3-6-14 oc bracing: 16-17 3-11-3 oc bracing: 14-16. 3-3-0 oc bracing: 31-33 3-7-0 oc bracing: 29-31 4-2-0 oc bracing: 27-29 6-0-0 oc bracing: 21-27 10-0-0 oc bracing: 19-21, 18-19
WEBS 2x4 SP No.3 *Except* 12-13: 2x6 SP No.2, 6-34,9-40,10-16,40-45: 2x4 SP No.2	WEBS JOINTS 1 Row at midpt 1-39, 5-33, 33-45, 41-42, 3-38 1 Brace at Jt(s): 41, 42, 45, 27, 31, 29, 21, 19
<b>REACTIONS.</b> (lb/size) 39=1835/Mechanical, 13=1773/0-3-8 (min. 0-2-3), 22=852/0-3-8 (min. 0-2-1) Max Horz 39=196(LC 9) Max Grav 39=1954(LC 2), 13=1837(LC 2), 22=1753(LC 18)	

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-39=-1936/0, 4-5=-2008/0, 5-6=-1736/0, 6-49=-2583/227, 49-50=-2583/227, 7-50=-2583/227, 7-51=-2561/222, 8-51=-2561/222, 8-9=-1317/205, 9-52=-1513/47, 10-52=-1545/38, 10-11=-1783/0, 12-13=-1969/0, 1-53=-1056/2, 2-53=-1004/14, 2-54=-1055/36, 3-54=-967/47, 3-4=-1994/0, 11-12=-1840/0
BOT CHORD 37-38=0/1616, 36-37=0/1616, 35-36=0/1616, 34-35=0/3289, 32-34=0/3468, 30-32=0/4159, 28-30=0/3784, 26-28=0/2718, 25-26=-50/499, 22-25=-50/499, 20-22=-1340/0, 17-20=-1376/84, 16-17=-2204/124, 15-16=-1905/134, 14-15=-1905/134, 31-33=-2308/0, 29-31=-2351/0, 27-29=-1780/0, 24-27=-349/545, 23-24=0/3607, 21-23=0/3607, 19-21=0/2981, 18-19=0/3488
WEBS 1-38=0/1811, 5-33=-150/335, 33-45=-690/218, 6-45=-568/237, 40-41=-1010/0, 40-42=-1010/0, 42-43=-1011/0, 9-43=-719/0, 16-18=0/324, 18-44=-683/171, 10-44=-517/195, 7-41=-557/122, 6-41=-251/1095, 8-41=-20/1751, 33-35=-1710/106, 12-18=0/1929, 14-18=-144/1958, 43-44=-445/1, 26-27=-1149/0, 32-33=0/853, 31-32=-534/160, 30-31=-285/77, 29-30=-28/347, 28-29=-611/0, 27-28=0/686, 24-26=0/1513, 22-24=-2550/0, 21-22=-877/58, 17-19=-569/20, 17-18=-29/455, 22-23=-453/0, 5-35=-46/715, 3-47=0/302, 35-47=0/298, 38-46=-1368/0, 3-46=-1366/0



- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2) 4-2-4 to 7-2-4, Interior(1) 7-2-4 to 17-7-8, Exterior(2) 17-7-8 to 21-10-7, Interior(1) 21-10-7 to 35-8-8, Exterior(2) 35-8-8 to 39-11-7, Interior(1) 39-11-7 to 47-1-4 zone; cantilever left and right exposed ; end vertical left and right

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

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917595
NC1 111-R	AT05	HIP	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:03 2023 Page 2  
ID:JbnYVf1QbWGMYS3eidP34zb6LG-sMqtjgwpWNa1jj?4p9wYOSwjPzas3g3mPeZgmGzOU2c

**NOTES-**

- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Ceiling dead load (5.0 psf) on member(s). 9-10, 10-11, 41-45, 41-42, 42-43, 9-43; Wall dead load (5.0psf) on member(s).33-45, 18-44, 10-44
- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 31-33, 29-31, 27-29, 24-27, 23-24, 21-23, 19-21, 18-19
- 9) Refer to girder(s) for truss to truss connections.
- 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) N/A
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Attic room checked for L/360 deflection.

**LOAD CASE(S)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-60, 5-8=-60, 8-9=-60, 9-11=-70, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-60, 11-12=-60  
Drag: 33-45=-10, 10-18=-10
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-50, 5-8=-50, 8-9=-50, 9-11=-60, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-50, 4-54=-80, 11-12=-50  
Drag: 33-45=-10, 10-18=-10
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-11=-30, 13-39=-40, 18-33=-30, 9-45=-10, 1-54=-20, 4-54=-60, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=12, 5-49=20, 8-49=15, 8-9=17, 9-52=11, 11-52=6, 13-39=-12, 18-33=-18, 9-45=-6, 1-53=22, 4-53=12, 11-12=12  
Horz: 1-39=13, 4-5=-24, 8-52=29, 11-52=24, 12-13=24, 1-53=-34, 4-53=-24, 11-12=24  
Drag: 33-45=-10, 10-18=-10
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=17, 5-51=15, 8-51=20, 8-9=12, 9-11=6, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=12, 11-12=22  
Horz: 1-39=-24, 4-5=-29, 8-11=24, 12-13=-13, 1-4=-24, 11-12=34  
Drag: 33-45=-10, 10-18=-10
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-44, 5-8=-29, 8-9=-44, 9-11=-54, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-32, 11-12=-32  
Horz: 1-39=-15, 4-5=24, 8-11=-24, 12-13=-22, 1-4=12, 11-12=-12  
Drag: 33-45=-10, 10-18=-10
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-44, 5-8=-29, 8-9=-44, 9-11=-54, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-32, 11-12=-32  
Horz: 1-39=22, 4-5=24, 8-11=-24, 12-13=15, 1-4=12, 11-12=-12  
Drag: 33-45=-10, 10-18=-10
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-13, 5-8=9, 8-9=3, 9-11=-3, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=9, 11-12=4  
Horz: 1-39=9, 4-5=1, 8-11=15, 12-13=14, 1-4=-21, 11-12=16  
Drag: 33-45=-10, 10-18=-10
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=3, 5-8=9, 8-9=-13, 9-11=-19, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=4, 11-12=9  
Horz: 1-39=-14, 4-5=-15, 8-11=-1, 12-13=-9, 1-4=-16, 11-12=21  
Drag: 33-45=-10, 10-18=-10
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-30, 5-8=-7, 8-9=-14, 9-11=-24, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-7, 11-12=-13  
Horz: 1-39=18, 4-5=10, 8-11=6, 12-13=5, 1-4=-13, 11-12=7  
Drag: 33-45=-10, 10-18=-10
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-14, 5-8=-7, 8-9=-30, 9-11=-40, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-13, 11-12=-7  
Horz: 1-39=-5, 4-5=-6, 8-11=-10, 12-13=-18, 1-4=-7, 11-12=13  
Drag: 33-45=-10, 10-18=-10
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=9, 5-50=9, 8-50=2, 8-9=2, 9-11=-4, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=9, 11-12=2  
Horz: 1-39=5, 4-5=-21, 8-11=14, 12-13=12, 1-4=-21, 11-12=14  
Drag: 33-45=-10, 10-18=-10
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917595
NC1 111-R	AT05	HIP	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:03 2023 Page 3  
ID:JbnYVf1QbWGMYS3eidP34zb6LG-sMqtjgwpWNA1jj?4p9wYOSwjPzas3g3mPeZgmGzOU2c

### LOAD CASE(S)

- Uniform Loads (plf)  
Vert: 4-5=2, 5-50=2, 8-50=9, 8-9=9, 9-11=3, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=2, 11-12=9  
Horz: 1-39=-12, 4-5=-14, 8-11=21, 12-13=-5, 1-4=-14, 11-12=21  
Drag: 33-45=-10, 10-18=-10
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=9, 5-50=9, 8-50=2, 8-9=2, 9-11=-4, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=9, 11-12=2  
Horz: 1-39=5, 4-5=-21, 8-11=14, 12-13=12, 1-4=-21, 11-12=14  
Drag: 33-45=-10, 10-18=-10
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=2, 5-50=2, 8-50=9, 8-9=9, 9-11=3, 13-39=-12, 18-33=-18, 9-45=-6, 1-4=2, 11-12=9  
Horz: 1-39=-12, 4-5=-14, 8-11=21, 12-13=-5, 1-4=-14, 11-12=21  
Drag: 33-45=-10, 10-18=-10
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-7, 5-50=-7, 8-50=-15, 8-9=-15, 9-11=-25, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-7, 11-12=-15  
Horz: 1-39=14, 4-5=-13, 8-11=5, 12-13=3, 1-4=-13, 11-12=5  
Drag: 33-45=-10, 10-18=-10
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-15, 5-50=-15, 8-50=-7, 8-9=-7, 9-11=-17, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-15, 11-12=-7  
Horz: 1-39=3, 4-5=-5, 8-11=13, 12-13=-14, 1-4=-5, 11-12=13  
Drag: 33-45=-10, 10-18=-10
- 18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-11=-30, 13-39=-20, 18-33=-110, 9-45=-10, 1-54=-20, 4-54=-60, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 19) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-20, 8-9=-20, 9-11=-30, 13-39=-20, 18-33=-110, 9-45=-10, 1-54=-20, 4-54=-60, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-57, 5-8=-41, 8-9=-45, 9-11=-55, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-41, 4-54=-71, 11-12=-45  
Horz: 1-39=14, 4-5=7, 8-11=5, 12-13=4, 1-4=-9, 11-12=5  
Drag: 33-45=-10, 10-18=-10
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-45, 5-8=-41, 8-9=-57, 9-11=-67, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-45, 4-54=-75, 11-12=-41  
Horz: 1-39=-4, 4-5=-5, 8-11=-7, 12-13=-14, 1-4=-5, 11-12=9  
Drag: 33-45=-10, 10-18=-10
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-41, 5-50=-41, 8-50=-46, 8-9=-46, 9-11=-56, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-41, 4-54=-71, 11-12=-46  
Horz: 1-39=11, 4-5=-9, 8-11=4, 12-13=2, 1-4=-9, 11-12=4  
Drag: 33-45=-10, 10-18=-10
- 23) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 4-5=-46, 5-50=-46, 8-50=-41, 8-9=-41, 9-11=-51, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-46, 4-54=-76, 11-12=-41  
Horz: 1-39=-2, 4-5=-4, 8-11=9, 12-13=-11, 1-4=-4, 11-12=9  
Drag: 33-45=-10, 10-18=-10
- 24) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-60, 5-8=-60, 8-9=-20, 9-11=-30, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-60, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 25) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-60, 8-9=-60, 9-11=-70, 13-39=-20, 18-33=-30, 9-45=-10, 1-4=-20, 11-12=-60  
Drag: 33-45=-10, 10-18=-10
- 26) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-50, 5-8=-50, 8-9=-20, 9-11=-30, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-50, 4-54=-80, 11-12=-20  
Drag: 33-45=-10, 10-18=-10
- 27) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 4-5=-20, 5-8=-50, 8-9=-50, 9-11=-60, 13-39=-20, 18-33=-90, 9-45=-10, 1-54=-20, 4-54=-50, 11-12=-50  
Drag: 33-45=-10, 10-18=-10

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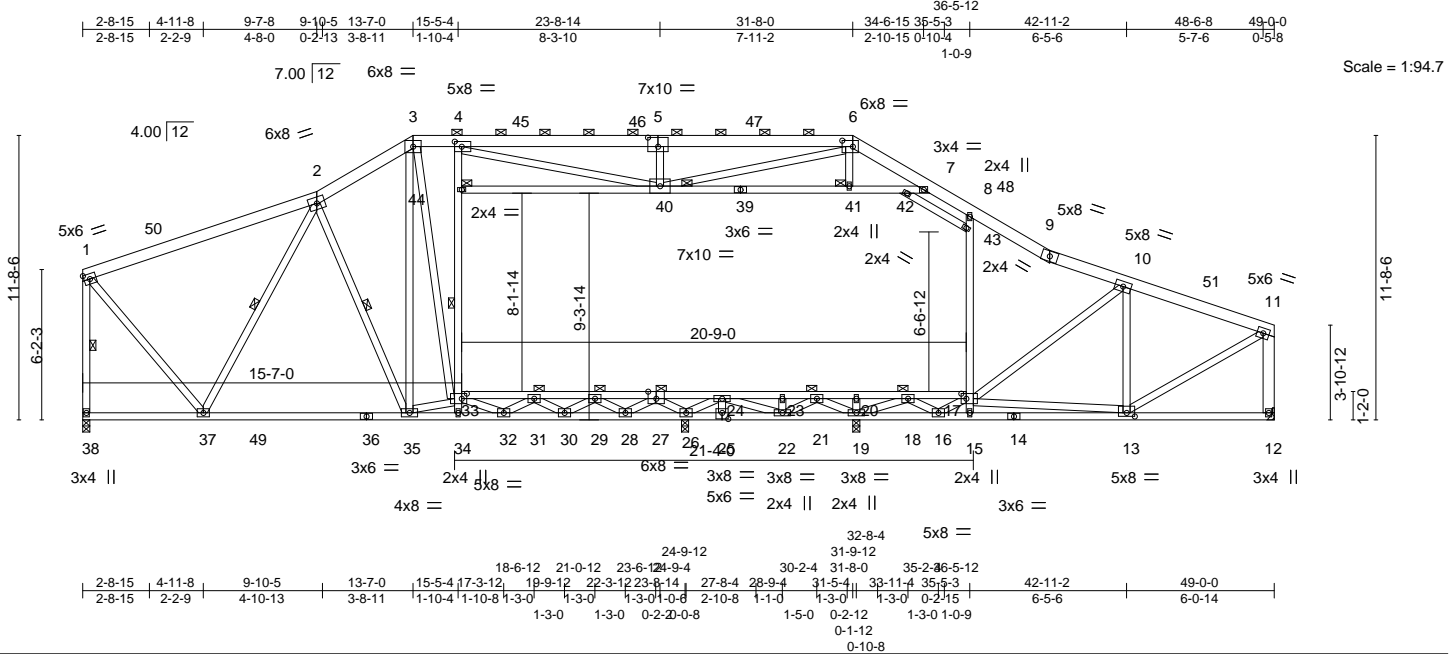


818 Soundside Road  
Edenton, NC 27932

Job NC1 111-R	Truss AT06	Truss Type HIP	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111	157917596
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Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:15 2023 Page 1  
ID:JbnYVf1QbWGMVvS3eidP34zb6LG-WgYPEn4Lh34K9ZwOWg7MtOQqYngnt9fXAWTJBZZOU2Q



Scale = 1:94.7

Plate Offsets (X,Y)-- [4:0-3-8,0-2-8], [5:0-5-0,0-4-8], [6:0-5-4,0-3-0], [13:0-4-0,0-1-12], [17:0-2-8,0-2-8], [25:0-3-0,0-3-0], [27:0-4-0,Edge], [33:0-2-8,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.82	Vert(LL)	-0.22	35-37	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-0.40	35-37	>743		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.73	Horz(CT)	0.06	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.06	34	>999		
								Weight: 479 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-4 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-6 max.): 3-6.
BOT CHORD 2x4 SP No.2 *Except* 25-36,17-27: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 26-28,25-26,22-25 5-8-9 oc bracing: 19-22.
WEBS 2x4 SP No.3 *Except* 11-12: 2x6 SP No.2, 4-34,7-39,8-15,39-44: 2x4 SP No.2	WEBS 1 Row at midpt 1-38, 33-44, 2-37, 2-35
	JOINTS 1 Brace at Jt(s): 40, 41, 44, 27, 31, 29, 21, 18

**REACTIONS.** All bearings 0-3-8 except (jt=length) 12=Mechanical.  
(lb) - Max Horz 38=156(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) except 38=1815(LC 2), 12=1545(LC 1), 26=1552(LC 18), 19=1202(LC 27)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-38=-1799/0, 2-3=-1892/52, 3-4=-1614/60, 4-45=-2522/272, 45-46=-2522/272, 5-46=-2522/272, 5-47=-2502/267, 6-47=-2502/267, 6-7=-1426/195, 7-48=-1733/54, 8-48=-1770/41, 8-9=-1780/0, 11-12=-1496/0, 1-50=-1142/21, 2-50=-1086/45, 9-10=-1818/0, 10-51=-1528/0, 11-51=-1605/0  
BOT CHORD 37-49=0/1553, 36-49=0/1553, 35-36=0/1553, 34-35=0/2384, 32-34=0/2468, 30-32=0/2357, 28-30=0/1314, 26-28=-543/14, 25-26=-939/0, 22-25=-939/0, 19-22=-1000/152, 16-19=0/719, 15-16=0/2045, 14-15=0/2010, 13-14=0/2010, 31-33=-966/0, 29-31=-504/84, 27-29=0/1174, 24-27=0/3316, 23-24=0/2120, 21-23=0/2120, 20-21=0/2565, 18-20=0/2565, 17-18=-30/541  
WEBS 3-33=-45/528, 33-44=-837/178, 4-44=-724/197, 39-40=-693/0, 39-41=-693/0, 41-42=-698/0, 7-42=-665/0, 17-43=-576/156, 8-43=-514/167, 10-13=-738/40, 11-13=0/1760, 5-40=-505/128, 4-40=-222/1124, 6-40=-74/1427, 33-35=-979/24, 10-17=-57/277, 13-17=-633/115, 26-27=-1545/0, 32-33=-273/341, 31-32=-72/400, 30-31=-655/0, 29-30=0/716, 28-29=-1053/0, 27-28=0/1096, 24-26=-1021/0, 22-24=-108/806, 21-22=-54/383, 18-19=-1662/0, 16-18=-71/1129, 16-17=-1031/67, 3-35=-34/680, 2-37=-1137/34, 1-37=0/1594, 19-20=-321/0, 19-21=-312/121

**NOTES-**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2) 4-2-4 to 7-2-4, Interior(1) 7-2-4 to 17-7-8, Exterior(2) 17-7-8 to 21-10-7, Interior(1) 21-10-7 to 35-8-8, Exterior(2) 35-8-8 to 39-11-7, Interior(1) 39-11-7 to 52-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) Provide adequate drainage to prevent water ponding.  
4) All plates are 4x6 MT20 unless otherwise indicated.  
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



April 21, 2023

Continued on page 2

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



Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917596
NC1 111-R	AT06	HIP	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:15 2023 Page 2  
 ID:JbnYVf1QbWGMYS3eidP34zb6LG-WgYPEn4Lh34K9ZwOWg7MtOQqYngnt9fXAWTJBZzOU2Q

**NOTES-**

- 7) Ceiling dead load (5.0 psf) on member(s). 7-8, 8-9, 40-44, 40-41, 41-42, 7-42; Wall dead load (5.0psf) on member(s).33-44, 17-43, 8-43
- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 31-33, 29-31, 27-29, 24-27, 23-24, 21-23, 20-21, 18-20, 17-18
- 9) Refer to girder(s) for truss to truss connections.
- 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) N/A
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Attic room checked for L/360 deflection.

**LOAD CASE(S)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 2-3=-60, 3-6=-60, 6-7=-60, 7-9=-70, 12-38=-20, 17-33=-30, 7-44=-10, 1-2=-60, 9-11=-60  
 Drag: 33-44=-10, 8-17=-10
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 2-3=-50, 3-6=-50, 6-7=-50, 7-9=-60, 38-49=-20, 36-49=-50, 12-36=-20, 17-33=-90, 7-44=-10, 1-2=-50, 9-11=-50  
 Drag: 33-44=-10, 8-17=-10
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 2-3=-20, 3-6=-20, 6-7=-20, 7-9=-30, 12-38=-40, 17-33=-30, 7-44=-10, 1-2=-20, 9-11=-20  
 Drag: 33-44=-10, 8-17=-10
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=12, 3-45=20, 6-45=15, 6-7=17, 7-48=11, 9-48=6, 12-38=-12, 17-33=-18, 7-44=-6, 1-50=22, 2-50=12, 9-11=12  
 Horz: 1-38=13, 2-3=-24, 6-48=29, 9-48=24, 11-12=24, 1-50=-34, 2-50=-24, 9-11=24  
 Drag: 33-44=-10, 8-17=-10
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=17, 3-47=15, 6-47=20, 6-7=12, 7-9=6, 12-38=-12, 17-33=-18, 7-44=-6, 1-2=12, 9-51=12, 11-51=22  
 Horz: 1-38=-24, 2-3=-29, 6-9=24, 11-12=13, 1-2=-24, 9-51=24, 11-51=34  
 Drag: 33-44=-10, 8-17=-10
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=-44, 3-6=-29, 6-7=-44, 7-9=-54, 12-38=-20, 17-33=-30, 7-44=-10, 1-2=-32, 9-11=-32  
 Horz: 1-38=-15, 2-3=24, 6-9=-24, 11-12=-22, 1-2=12, 9-11=-12  
 Drag: 33-44=-10, 8-17=-10
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=-44, 3-6=-29, 6-7=-44, 7-9=-54, 12-38=-20, 17-33=-30, 7-44=-10, 1-2=-32, 9-11=-32  
 Horz: 1-38=22, 2-3=24, 6-9=-24, 11-12=15, 1-2=12, 9-11=-12  
 Drag: 33-44=-10, 8-17=-10
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=-13, 3-6=9, 6-7=3, 7-9=-3, 12-38=-12, 17-33=-18, 7-44=-6, 1-2=9, 9-11=4  
 Horz: 1-38=9, 2-3=1, 6-9=15, 11-12=14, 1-2=-21, 9-11=16  
 Drag: 33-44=-10, 8-17=-10
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=3, 3-6=9, 6-7=-13, 7-9=-19, 12-38=-12, 17-33=-18, 7-44=-6, 1-2=4, 9-11=9  
 Horz: 1-38=-14, 2-3=15, 6-9=-1, 11-12=-9, 1-2=-16, 9-11=21  
 Drag: 33-44=-10, 8-17=-10
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=-30, 3-6=-7, 6-7=-14, 7-9=-24, 12-38=-20, 17-33=-30, 7-44=-10, 1-2=-7, 9-11=-13  
 Horz: 1-38=18, 2-3=10, 6-9=6, 11-12=5, 1-2=-13, 9-11=7  
 Drag: 33-44=-10, 8-17=-10
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=-14, 3-6=-7, 6-7=-30, 7-9=-40, 12-38=-20, 17-33=-30, 7-44=-10, 1-2=-13, 9-11=-7  
 Horz: 1-38=-5, 2-3=-6, 6-9=10, 11-12=-18, 1-2=-7, 9-11=13  
 Drag: 33-44=-10, 8-17=-10
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=9, 3-46=9, 6-46=2, 6-7=2, 7-9=-4, 12-38=-12, 17-33=-18, 7-44=-6, 1-2=9, 9-11=2  
 Horz: 1-38=5, 2-3=-21, 6-9=14, 11-12=12, 1-2=-21, 9-11=14  
 Drag: 33-44=-10, 8-17=-10
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 2-3=2, 3-46=2, 6-46=9, 6-7=9, 7-9=3, 12-38=-12, 17-33=-18, 7-44=-6, 1-2=2, 9-11=9  
 Horz: 1-38=-12, 2-3=-14, 6-9=21, 11-12=-5, 1-2=-14, 9-11=21  
 Drag: 33-44=-10, 8-17=-10
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917596
NC1 111-R	AT06	HIP	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:15 2023 Page 3  
ID:JbnYVf1QbWGMYS3eidP34zb6LG-WgYPEn4Lh34K9ZwOWg7MtOQqYngnt9fXAWTJBZZOU2Q

### LOAD CASE(S)

- Uniform Loads (plf)  
Vert: 2-3=9, 3-46=9, 6-46=2, 6-7=2, 7-9=-4, 12-38=-12, 17-33=-18, 7-44=-6, 1-2=9, 9-11=2  
Horz: 1-38=5, 2-3=-21, 6-9=14, 11-12=12, 1-2=-21, 9-11=14  
Drag: 33-44=-10, 8-17=-10
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=2, 3-46=2, 6-46=9, 6-7=9, 7-9=3, 12-38=-12, 17-33=-18, 7-44=-6, 1-2=2, 9-11=9  
Horz: 1-38=-12, 2-3=-14, 6-9=21, 11-12=-5, 1-2=-14, 9-11=21  
Drag: 33-44=-10, 8-17=-10
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-7, 3-46=-7, 6-46=-15, 6-7=-15, 7-9=-25, 12-38=-20, 17-33=-30, 7-44=-10, 1-2=-7, 9-11=-15  
Horz: 1-38=14, 2-3=-13, 6-9=5, 11-12=3, 1-2=-13, 9-11=5  
Drag: 33-44=-10, 8-17=-10
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-15, 3-46=-15, 6-46=-7, 6-7=-7, 7-9=-17, 12-38=-20, 17-33=-30, 7-44=-10, 1-2=-15, 9-11=-7  
Horz: 1-38=-3, 2-3=-5, 6-9=13, 11-12=-14, 1-2=-5, 9-11=13  
Drag: 33-44=-10, 8-17=-10
- 18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 2-3=-20, 3-6=-20, 6-7=-20, 7-9=-30, 38-49=-20, 36-49=-60, 12-36=-20, 17-33=-110, 7-44=-10, 1-2=-20, 9-11=-20  
Drag: 33-44=-10, 8-17=-10
- 19) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 2-3=-20, 3-6=-20, 6-7=-20, 7-9=-30, 38-49=-20, 36-49=-60, 12-36=-20, 17-33=-110, 7-44=-10, 1-2=-20, 9-11=-20  
Drag: 33-44=-10, 8-17=-10
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-57, 3-6=-41, 6-7=-45, 7-9=-55, 38-49=-20, 36-49=-50, 12-36=-20, 17-33=-90, 7-44=-10, 1-2=-41, 9-11=-45  
Horz: 1-38=14, 2-3=7, 6-9=5, 11-12=4, 1-2=-9, 9-11=5  
Drag: 33-44=-10, 8-17=-10
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-45, 3-6=-41, 6-7=-57, 7-9=-67, 38-49=-20, 36-49=-50, 12-36=-20, 17-33=-90, 7-44=-10, 1-2=-45, 9-11=-41  
Horz: 1-38=-4, 2-3=-5, 6-9=-7, 11-12=-14, 1-2=-5, 9-11=3  
Drag: 33-44=-10, 8-17=-10
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-41, 3-46=-41, 6-46=-46, 6-7=-46, 7-9=-56, 38-49=-20, 36-49=-50, 12-36=-20, 17-33=-90, 7-44=-10, 1-2=-41, 9-11=-46  
Horz: 1-38=11, 2-3=-9, 6-9=4, 11-12=2, 1-2=-9, 9-11=4  
Drag: 33-44=-10, 8-17=-10
- 23) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-46, 3-46=-46, 6-46=-41, 6-7=-41, 7-9=-51, 38-49=-20, 36-49=-50, 12-36=-20, 17-33=-90, 7-44=-10, 1-2=-46, 9-11=-41  
Horz: 1-38=-2, 2-3=-4, 6-9=9, 11-12=-11, 1-2=-4, 9-11=9  
Drag: 33-44=-10, 8-17=-10
- 24) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-60, 3-6=-60, 6-7=-20, 7-9=-30, 12-38=-20, 17-33=-30, 7-44=-10, 1-2=-60, 9-11=-20  
Drag: 33-44=-10, 8-17=-10
- 25) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-20, 3-6=-60, 6-7=-60, 7-9=-70, 12-38=-20, 17-33=-30, 7-44=-10, 1-2=-20, 9-11=-60  
Drag: 33-44=-10, 8-17=-10
- 26) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-50, 3-6=-50, 6-7=-20, 7-9=-30, 38-49=-20, 36-49=-50, 12-36=-20, 17-33=-90, 7-44=-10, 1-2=-50, 9-11=-20  
Drag: 33-44=-10, 8-17=-10
- 27) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-20, 3-6=-50, 6-7=-50, 7-9=-60, 38-49=-20, 36-49=-50, 12-36=-20, 17-33=-90, 7-44=-10, 1-2=-20, 9-11=-50  
Drag: 33-44=-10, 8-17=-10

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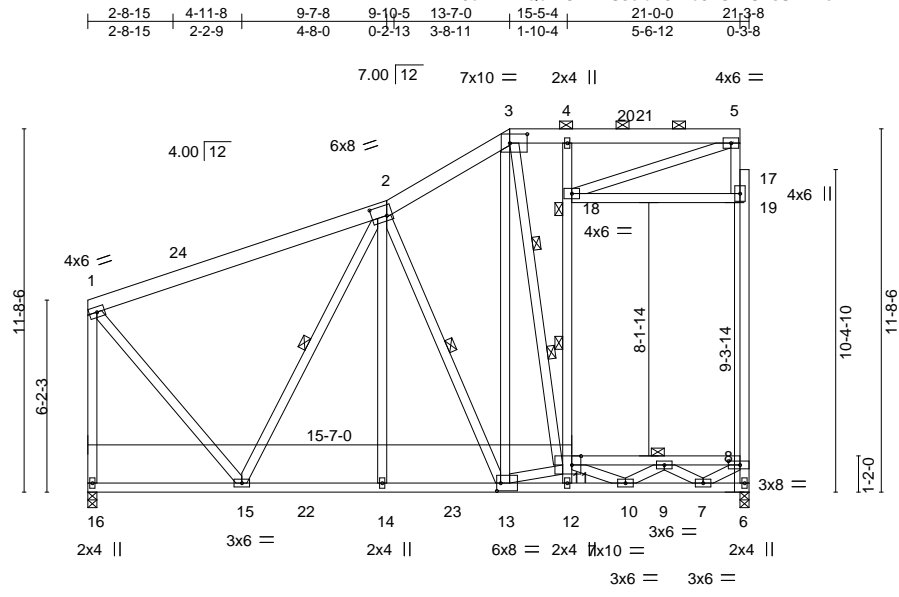


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917597
NC1 111-R	AT07	HIP	5	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:40 2023 Page 1  
 ID:JbnYVf1QbWGMVvS3eidP34zb6LG-HUZsUKN1olEnfPKBUQ4DOfy2SsC2ESGcwv18ZczOU21



Scale = 1:74.2

2-8-15	4-11-8	9-7-8	9-10-5	13-7-0	15-5-4	21-0-0	21-3-8
2-8-15	2-2-9	4-8-0	0-2-13	3-8-11	1-10-4	5-6-12	0-3-8

Plate Offsets (X,Y)-- [2:0-5-12,0-4-0], [3:0-6-12,0-3-8], [8:0-4-8,0-1-8], [11:0-3-8,Edge], [13:0-1-8,0-3-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 1.00	Vert(LL)	-0.18 12-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.37 12-13	>676	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.80	Horz(CT)	0.04 6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.10 12-13	>999	240		
								Weight: 245 lb	FT = 20%

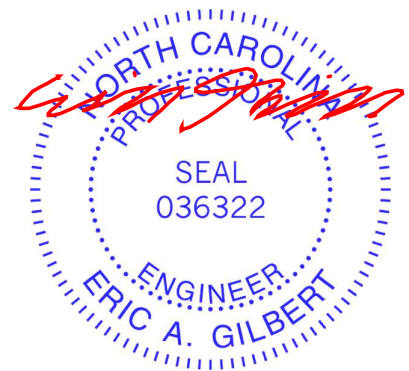
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 6-7.
WEBS 2x4 SP No.3 *Except* 6-17: 2x4 SP No.1, 4-12,18-19,5-19: 2x4 SP No.2	WEBS 1 Row at midpt 11-18, 2-15, 2-13 2 Rows at 1/3 pts 3-11
	JOINTS 1 Brace at Jt(s): 18, 9

**REACTIONS.** (lb/size) 16=898/0-3-8 (min. 0-1-8), 6=1477/0-3-8 (min. 0-2-6)  
 Max Horz 16=271(LC 9)  
 Max Grav 16=924(LC 23), 6=2001(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-16=-881/0, 2-3=-660/103, 4-20=-301/121, 20-21=-301/121, 5-21=-301/121,  
 6-8=-1962/11, 8-19=-1012/87, 17-19=-946/81, 5-17=-985/97, 1-24=-522/52,  
 2-24=-463/76  
 BOT CHORD 9-11=-2829/0, 8-9=-894/32, 15-16=-300/225, 15-22=-170/646, 14-22=-170/646,  
 14-23=-171/643, 13-23=-171/643, 12-13=-219/3547, 10-12=-239/3799, 7-10=0/2085,  
 6-7=-294/114  
 WEBS 3-11=-1733/166, 18-19=-255/150, 11-13=-3323/97, 10-11=-1022/233, 9-10=-147/1015,  
 7-9=-1390/28, 3-13=-97/1703, 2-15=-464/0, 1-15=0/684, 2-13=-386/110, 7-8=-3/1460,  
 5-18=-140/366

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2) 4-2-4 to 7-2-4, Interior(1) 7-2-4 to 17-7-8, Exterior(2) 17-7-8 to 21-10-7, Interior(1) 21-10-7 to 24-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Ceiling dead load (5.0 psf) on member(s). 18-19; Wall dead load (5.0psf) on member(s).11-18
  - 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 9-11, 8-9
  - 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) N/A

- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 726 lb down and 51 lb up at 24-10-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.



Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917597
NC1 111-R	AT07	HIP	5	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:40 2023 Page 2  
ID:JbnYVf1QbWGMVYs3eidP34zb6LG-HUZsUKN1olEnfPKBUQ4DOfy2SsC2ESgCww18ZczOU21

**LOAD CASE(S)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-60, 3-5=-60, 8-11=-30, 18-19=-10, 6-16=-20, 1-2=-60  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=-404
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-50, 3-5=-50, 8-11=-90, 18-19=-10, 16-22=-20, 22-23=-50, 6-23=-20, 1-2=-50  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=-656
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 2-3=-20, 3-5=-20, 8-11=-30, 18-19=-10, 6-16=-40, 1-2=-20  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=-303
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=12, 3-21=20, 5-21=15, 17-19=18, 8-11=-18, 18-19=-6, 6-16=-12, 1-24=22, 2-24=12  
Horz: 1-16=15, 2-3=-24, 5-6=-18, 1-24=-34, 2-24=-24  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=51
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=17, 3-5=15, 17-19=24, 8-11=-18, 18-19=-6, 6-16=-12, 1-2=12  
Horz: 1-16=-26, 2-3=-29, 5-6=24, 1-2=-24  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=26
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-44, 3-5=-29, 17-19=-15, 8-11=-30, 18-19=-10, 6-16=-20, 1-2=-32  
Horz: 1-16=-18, 2-3=24, 5-6=15, 1-2=12  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=-324
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-44, 3-5=-29, 17-19=26, 8-11=-30, 18-19=-10, 6-16=-20, 1-2=-32  
Horz: 1-16=24, 2-3=24, 5-6=-26, 1-2=12  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=-324
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-13, 3-5=9, 17-19=-14, 8-11=-18, 18-19=-6, 6-16=-12, 1-2=9  
Horz: 1-16=9, 2-3=1, 5-6=14, 1-2=-21  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=-13
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=3, 3-5=9, 17-19=9, 8-11=-18, 18-19=-6, 6-16=-12, 1-2=4  
Horz: 1-16=-14, 2-3=-15, 5-6=-9, 1-2=-16  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=-13
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-30, 3-5=-7, 17-19=-5, 8-11=-30, 18-19=-10, 6-16=-20, 1-2=-7  
Horz: 1-16=18, 2-3=10, 5-6=5, 1-2=-13  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=-294
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-14, 3-5=-7, 17-19=18, 8-11=-30, 18-19=-10, 6-16=-20, 1-2=-13  
Horz: 1-16=-5, 2-3=-6, 5-6=-18, 1-2=-7  
Drag: 11-18=-10  
Concentrated Loads (lb)  
Vert: 5=-224
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917597
NC1 111-R	AT07	HIP	5	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:40 2023 Page 3  
ID:JbnYVf1QbWGMYYs3eidP34zb6LG-HUZsUKN1olEnfPKBUQ4DOfy2SsC2ESgCww18ZczOU21

**LOAD CASE(S)**

- Uniform Loads (plf)  
Vert: 2-3=9, 3-20=9, 5-20=2, 17-19=-12, 8-11=-18, 18-19=-6, 6-16=-12, 1-2=9  
Horz: 1-16=5, 2-3=-21, 5-6=12, 1-2=-21  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-13
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=2, 3-20=2, 5-20=9, 17-19=5, 8-11=-18, 18-19=-6, 6-16=-12, 1-2=2  
Horz: 1-16=-12, 2-3=-14, 5-6=-5, 1-2=-14  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-13
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=9, 3-20=9, 5-20=2, 17-19=-12, 8-11=-18, 18-19=-6, 6-16=-12, 1-2=9  
Horz: 1-16=5, 2-3=-21, 5-6=12, 1-2=-21  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-13
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=2, 3-20=2, 5-20=9, 17-19=5, 8-11=-18, 18-19=-6, 6-16=-12, 1-2=2  
Horz: 1-16=-12, 2-3=-14, 5-6=-5, 1-2=-14  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-13
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-7, 3-20=-7, 5-20=-15, 17-19=-3, 8-11=-30, 18-19=-10, 6-16=-20, 1-2=-7  
Horz: 1-16=14, 2-3=-13, 5-6=3, 1-2=-13  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-274
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-15, 3-20=-15, 5-20=-7, 17-19=14, 8-11=-30, 18-19=-10, 6-16=-20, 1-2=-15  
Horz: 1-16=-3, 2-3=-5, 5-6=-14, 1-2=-5  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-224
- 18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 2-3=-20, 3-5=-20, 8-11=-110, 18-19=-10, 16-22=-20, 22-23=60, 6-23=-20, 1-2=-20  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-606
- 19) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 2-3=-20, 3-5=-20, 8-11=-110, 18-19=-10, 16-22=-20, 22-23=60, 6-23=-20, 1-2=-20  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-606
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-57, 3-5=-41, 17-19=-4, 8-11=-90, 18-19=-10, 16-22=-20, 22-23=-50, 6-23=-20, 1-2=-45  
Horz: 1-16=14, 2-3=7, 5-6=4, 1-2=9  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-726
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-45, 3-5=-41, 17-19=14, 8-11=-90, 18-19=-10, 16-22=-20, 22-23=-50, 6-23=-20, 1-2=-45  
Horz: 1-16=-4, 2-3=-5, 5-6=-14, 1-2=-5  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-673
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-41, 3-20=-41, 5-20=-46, 17-19=-2, 8-11=-90, 18-19=-10, 16-22=-20, 22-23=-50, 6-23=-20, 1-2=-41  
Horz: 1-16=11, 2-3=-9, 5-6=2, 1-2=-9  
Drag: 11-18=-10
- Concentrated Loads (lb)  
Vert: 5=-711

Continued on page 4

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818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917597
NC1 111-R	AT07	HIP	5	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:35:40 2023 Page 4  
 ID:JbnYVf1QbWGMYS3eidP34zb6LG-HUZsUKN1olEnfPKBUQ4DOfy2SsC2ESgCww18ZczOU21

**LOAD CASE(S)**

- 23) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-46, 3-20=-46, 5-20=-41, 17-19=11, 8-11=-90, 18-19=-10, 16-22=-20, 22-23=-50, 6-23=-20, 1-2=-46
    - Horz: 1-16=-2, 2-3=-4, 5-6=-11, 1-2=-4
    - Drag: 11-18=-10
  - Concentrated Loads (lb)
    - Vert: 5=-673
- 24) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 2-3=-60, 3-5=-60, 8-11=-30, 18-19=-10, 6-16=-20, 1-2=-60
    - Drag: 11-18=-10
  - Concentrated Loads (lb)
    - Vert: 5=-404
- 25) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 2-3=-20, 3-5=-60, 8-11=-30, 18-19=-10, 6-16=-20, 1-2=-20
    - Drag: 11-18=-10
  - Concentrated Loads (lb)
    - Vert: 5=-404
- 26) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 2-3=-50, 3-5=-50, 8-11=-90, 18-19=-10, 16-22=-20, 22-23=-50, 6-23=-20, 1-2=-50
    - Drag: 11-18=-10
  - Concentrated Loads (lb)
    - Vert: 5=-656
- 27) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 2-3=-20, 3-5=-50, 8-11=-90, 18-19=-10, 16-22=-20, 22-23=-50, 6-23=-20, 1-2=-20
    - Drag: 11-18=-10
  - Concentrated Loads (lb)
    - Vert: 5=-656

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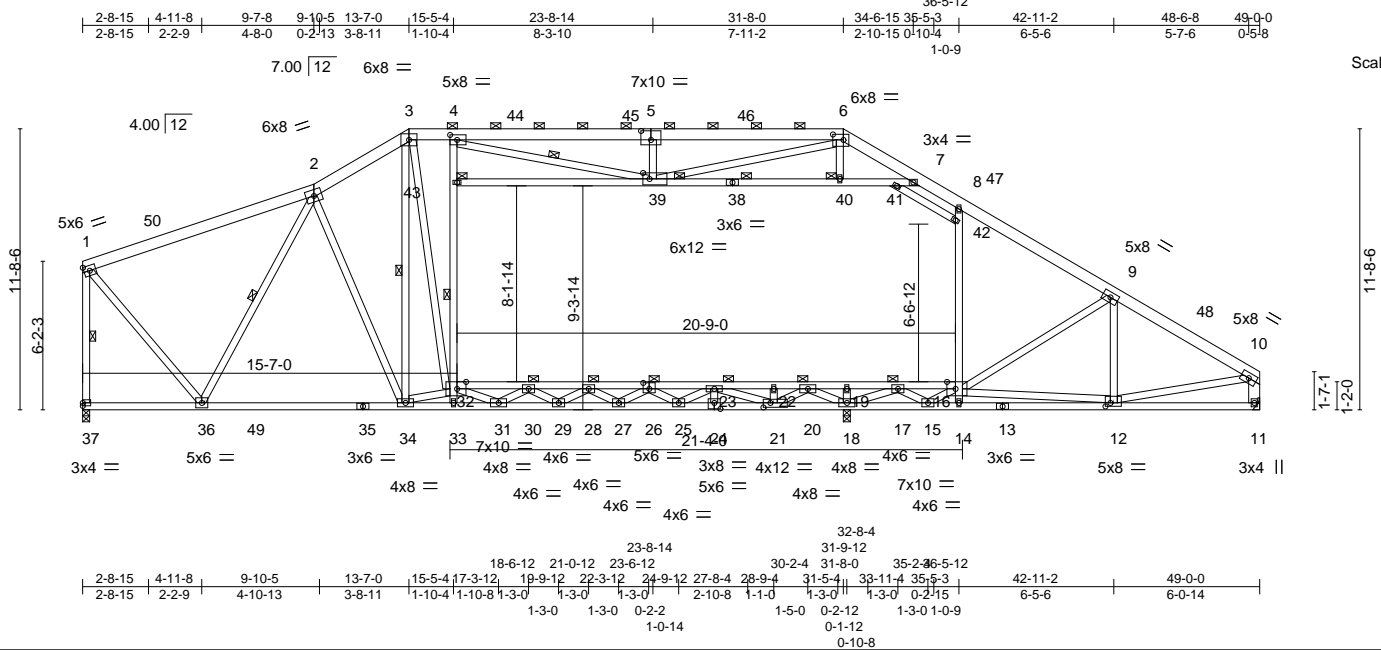


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917598
NC1 111-R	AT08	HIP	4	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:36:02 2023 Page 1  
 ID:JbnYVf1QbWGMvS3eidP34zb6LG-ejuA5reqcW?flo0Qm2TNHlsp3jAONSR\_KMIKLzOU1h



Scale: 1/8"=1'

Plate Offsets (X,Y)-- [4:0-3-8,0-2-8], [5:0-5-0,0-4-8], [6:0-5-4,0-2-12], [12:0-2-8,0-1-12], [16:0-4-4,Edge], [21:0-3-8,0-2-4], [24:0-3-0,0-3-0], [26:0-3-0,0-3-0], [32:0-4-8,Edge], [39:0-3-4,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.99	Vert(LL) -0.35 28-30 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.99	Vert(CT) -0.61 28-30 >626 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.91	Horz(CT) 0.10 18 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.08 33 >999 240	Weight: 473 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x4 SP No.1 \*Except\*  
 26-32,11-13: 2x4 SP No.2, 16-26: 2x4 SP SS  
 WEBS 2x4 SP No.3 \*Except\*  
 10-11: 2x6 SP No.2, 4-33,7-38,8-14,12-16,38-43: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 1-11-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-1 max.): 3-6.  
 Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
 6-0-0 oc bracing: 18-21  
 5-4-3 oc bracing: 15-18  
 5-0-6 oc bracing: 14-15  
 5-5-15 oc bracing: 12-14.  
 3-6-0 oc bracing: 26-28  
 4-0-0 oc bracing: 28-30  
 4-7-0 oc bracing: 20-26  
 6-0-0 oc bracing: 30-32  
 10-0-0 oc bracing: 17-20, 16-17  
 1 Row at midpt 1-37, 32-43, 39-40, 4-39, 3-34, 2-36  
 1 Brace at Jt(s): 39, 40, 43, 26, 30, 28, 20, 17

**REACTIONS.** (lb/size) 37=2011/0-3-8 (min. 0-2-11), 11=1719/Mechanical, 18=1153/0-3-8 (min. 0-2-1)  
 Max Horz 37=184(LC 9)  
 Max Grav 37=2293(LC 26), 11=1832(LC 2), 18=1761(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-37=-2276/0, 2-3=-2546/0, 3-4=-2359/0, 4-44=-2777/178, 44-45=-2777/178,  
 5-45=-2777/178, 5-46=-2756/173, 6-46=-2756/173, 6-7=-1485/201, 7-47=-2214/0,  
 8-47=-2256/0, 8-9=-2757/0, 9-48=-2320/0, 10-48=-2452/0, 10-11=-1769/0, 1-50=-1468/0,  
 2-50=-1412/0  
 BOT CHORD 36-49=0/2057, 35-49=0/2057, 34-35=0/2057, 33-34=0/1802, 31-33=-2/1846, 29-31=0/3606,  
 27-29=0/4293, 25-27=0/4375, 24-25=0/3264, 21-24=0/3264, 18-21=-747/225,  
 15-18=-1290/0, 14-15=-1312/1102, 13-14=-1088/1143, 12-13=-1088/1143, 30-32=-534/0,  
 28-30=-1897/0, 26-28=-2372/0, 23-26=-1964/199, 22-23=-143/1570, 20-22=-143/1570,  
 19-20=0/4149, 17-19=0/4149, 16-17=0/3509  
 WEBS 3-32=0/1261, 32-43=-759/242, 4-43=-637/261, 38-39=-1527/0, 38-40=-1527/0,  
 40-41=-1529/0, 7-41=-1287/0, 14-16=0/290, 16-42=-250/489, 8-42=-146/639,  
 9-12=-660/0, 10-12=0/1974, 5-39=-526/117, 4-39=-299/993, 6-39=0/1904, 32-34=-32/927,  
 9-16=-142/507, 12-16=0/2777, 41-42=-309/0, 25-26=-555/0, 31-32=0/1649,  
 30-31=-1167/0, 29-30=0/573, 28-29=-503/29, 23-25=0/831, 21-23=-1690/0, 20-21=0/1912,  
 17-18=-1302/160, 15-17=-183/881, 15-16=-865/133, 21-22=-361/0, 2-36=-1560/0,  
 1-36=0/2079, 2-34=0/344, 18-19=-387/0, 18-20=-1997/0

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



April 21, 2023

Continued on page 2

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917598
NC1 111-R	AT08	HIP	4	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:36:02 2023 Page 2  
ID:JbnYVf1QbWGMvS3eidP34zb6LG-ejuA5reqcW?fo0Qm2TNHlsp3jiAONSR\_KMIKLzOU1h

**NOTES-**

- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2) 4-2-4 to 7-2-4, Interior(1) 7-2-4 to 17-7-8, Exterior(2) 17-7-8 to 21-10-7, Interior(1) 21-10-7 to 35-8-8, Exterior(2) 35-8-8 to 39-11-7, Interior(1) 39-11-7 to 52-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Ceiling dead load (5.0 psf) on member(s). 7-8, 39-43, 39-40, 40-41, 7-41; Wall dead load (5.0psf) on member(s).32-43, 16-42, 8-42
- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 30-32, 28-30, 26-28, 23-26, 22-23, 20-22, 19-20, 17-19, 16-17
- 9) Refer to girder(s) for truss to truss connections.
- 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) N/A
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Attic room checked for L/360 deflection.

**LOAD CASE(S)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-60, 3-6=-60, 6-7=-60, 7-8=-70, 8-10=-60, 11-37=-20, 16-32=-30, 7-43=-10, 1-2=-60  
Drag: 32-43=-10, 8-16=-10
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-50, 3-6=-50, 6-7=-50, 7-8=-60, 8-10=-50, 37-49=-20, 35-49=-50, 11-35=-20, 16-32=-90, 7-43=-10, 1-2=-50  
Drag: 32-43=-10, 8-16=-10
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 2-3=-20, 3-6=-20, 6-7=-20, 7-8=-30, 8-10=-20, 11-37=-40, 16-32=-30, 7-43=-10, 1-2=-20  
Drag: 32-43=-10, 8-16=-10
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=12, 3-44=20, 6-44=15, 6-7=17, 7-47=11, 8-47=6, 8-10=12, 11-37=-12, 16-32=-18, 7-43=-6, 1-50=22, 2-50=12  
Horz: 1-37=13, 2-3=-24, 6-47=29, 10-47=24, 10-11=24, 1-50=-34, 2-50=-24  
Drag: 32-43=-10, 8-16=-10
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=17, 3-46=15, 6-46=20, 6-7=12, 7-8=6, 8-48=12, 10-48=17, 11-37=-12, 16-32=-18, 7-43=-6, 1-2=12  
Horz: 1-37=-24, 2-3=-29, 6-48=24, 10-48=29, 10-11=-13, 1-2=-24  
Drag: 32-43=-10, 8-16=-10
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-44, 3-6=-29, 6-7=-44, 7-8=-54, 8-10=-44, 11-37=-20, 16-32=-30, 7-43=-10, 1-2=-32  
Horz: 1-37=-15, 2-3=24, 6-10=-24, 10-11=-22, 1-2=12  
Drag: 32-43=-10, 8-16=-10
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-44, 3-6=-29, 6-7=-44, 7-8=-54, 8-10=-44, 11-37=-20, 16-32=-30, 7-43=-10, 1-2=-32  
Horz: 1-37=22, 2-3=24, 6-10=-24, 10-11=15, 1-2=12  
Drag: 32-43=-10, 8-16=-10
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-13, 3-6=9, 6-7=3, 7-8=-3, 8-10=3, 11-37=-12, 16-32=-18, 7-43=-6, 1-2=9  
Horz: 1-37=9, 2-3=1, 6-10=15, 10-11=14, 1-2=-21  
Drag: 32-43=-10, 8-16=-10
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=3, 3-6=9, 6-7=-13, 7-8=-19, 8-10=-13, 11-37=-12, 16-32=-18, 7-43=-6, 1-2=4  
Horz: 1-37=-14, 2-3=-15, 6-10=-1, 10-11=-9, 1-2=-16  
Drag: 32-43=-10, 8-16=-10
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-30, 3-6=-7, 6-7=-14, 7-8=-24, 8-10=-14, 11-37=-20, 16-32=-30, 7-43=-10, 1-2=-7  
Horz: 1-37=18, 2-3=10, 6-10=6, 10-11=5, 1-2=-13  
Drag: 32-43=-10, 8-16=-10
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-14, 3-6=-7, 6-7=-30, 7-8=-40, 8-10=-30, 11-37=-20, 16-32=-30, 7-43=-10, 1-2=-13  
Horz: 1-37=-5, 2-3=-6, 6-10=-10, 10-11=-18, 1-2=-7  
Drag: 32-43=-10, 8-16=-10
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=9, 3-45=9, 6-45=2, 6-7=2, 7-8=-4, 8-10=2, 11-37=-12, 16-32=-18, 7-43=-6, 1-2=9  
Horz: 1-37=5, 2-3=-21, 6-10=14, 10-11=12, 1-2=-21  
Drag: 32-43=-10, 8-16=-10
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917598
NC1 111-R	AT08	HIP	4	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:36:02 2023 Page 3  
ID:JbnYVf1QbWGMVvS3eidP34zb6LG-ejuA5reqcW?flo0Qm2TNHlsp3jIAONSR\_KMIKLzOU1h

**LOAD CASE(S)**

- Uniform Loads (plf)
  - Vert: 2-3=2, 3-45=2, 6-45=9, 6-7=9, 7-8=3, 8-10=9, 11-37=-12, 16-32=-18, 7-43=-6, 1-2=2
  - Horz: 1-37=-12, 2-3=-14, 6-10=21, 10-11=-5, 1-2=-14
  - Drag: 32-43=-10, 8-16=-10
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=9, 3-45=9, 6-45=2, 6-7=2, 7-8=-4, 8-10=2, 11-37=-12, 16-32=-18, 7-43=-6, 1-2=9
    - Horz: 1-37=5, 2-3=-21, 6-10=14, 10-11=12, 1-2=-21
    - Drag: 32-43=-10, 8-16=-10
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=2, 3-45=2, 6-45=9, 6-7=9, 7-8=3, 8-10=9, 11-37=-12, 16-32=-18, 7-43=-6, 1-2=2
    - Horz: 1-37=-12, 2-3=-14, 6-10=21, 10-11=-5, 1-2=-14
    - Drag: 32-43=-10, 8-16=-10
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-7, 3-45=-7, 6-45=-15, 6-7=-15, 7-8=-25, 8-10=-15, 11-37=-20, 16-32=-30, 7-43=-10, 1-2=-7
    - Horz: 1-37=14, 2-3=-13, 6-10=5, 10-11=3, 1-2=-13
    - Drag: 32-43=-10, 8-16=-10
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-15, 3-45=-15, 6-45=-7, 6-7=-7, 7-8=-17, 8-10=-7, 11-37=-20, 16-32=-30, 7-43=-10, 1-2=-15
    - Horz: 1-37=-3, 2-3=-5, 6-10=13, 10-11=-14, 1-2=-5
    - Drag: 32-43=-10, 8-16=-10
- 18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 2-3=-20, 3-6=-20, 6-7=-20, 7-8=-30, 8-10=-20, 37-49=-20, 35-49=-60, 11-35=-20, 16-32=-110, 7-43=-10, 1-2=-20
    - Drag: 32-43=-10, 8-16=-10
- 19) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 2-3=-20, 3-6=-20, 6-7=-20, 7-8=-30, 8-10=-20, 37-49=-20, 35-49=-60, 11-35=-20, 16-32=-110, 7-43=-10, 1-2=-20
    - Drag: 32-43=-10, 8-16=-10
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-57, 3-6=-41, 6-7=-45, 7-8=-55, 8-10=-45, 37-49=-20, 35-49=-50, 11-35=-20, 16-32=-90, 7-43=-10, 1-2=-41
    - Horz: 1-37=14, 2-3=7, 6-10=5, 10-11=4, 1-2=-9
    - Drag: 32-43=-10, 8-16=-10
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-45, 3-6=-41, 6-7=-57, 7-8=-67, 8-10=-57, 37-49=-20, 35-49=-50, 11-35=-20, 16-32=-90, 7-43=-10, 1-2=-45
    - Horz: 1-37=-4, 2-3=-5, 6-10=-7, 10-11=-14, 1-2=-5
    - Drag: 32-43=-10, 8-16=-10
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-41, 3-45=-41, 6-45=-46, 6-7=-46, 7-8=-56, 8-10=-46, 37-49=-20, 35-49=-50, 11-35=-20, 16-32=-90, 7-43=-10, 1-2=-41
    - Horz: 1-37=11, 2-3=-9, 6-10=4, 10-11=2, 1-2=-9
    - Drag: 32-43=-10, 8-16=-10
- 23) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-46, 3-45=-46, 6-45=-41, 6-7=-41, 7-8=-51, 8-10=-41, 37-49=-20, 35-49=-50, 11-35=-20, 16-32=-90, 7-43=-10, 1-2=-46
    - Horz: 1-37=-2, 2-3=-4, 6-10=9, 10-11=-11, 1-2=-4
    - Drag: 32-43=-10, 8-16=-10
- 24) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 2-3=-60, 3-6=-60, 6-7=-20, 7-8=-30, 8-10=-20, 11-37=-20, 16-32=-30, 7-43=-10, 1-2=-60
    - Drag: 32-43=-10, 8-16=-10
- 25) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 2-3=-20, 3-6=-60, 6-7=-60, 7-8=-70, 8-10=-60, 11-37=-20, 16-32=-30, 7-43=-10, 1-2=-20
    - Drag: 32-43=-10, 8-16=-10
- 26) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 2-3=-50, 3-6=-50, 6-7=-20, 7-8=-30, 8-10=-20, 37-49=-20, 35-49=-50, 11-35=-20, 16-32=-90, 7-43=-10, 1-2=-50
    - Drag: 32-43=-10, 8-16=-10
- 27) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 2-3=-20, 3-6=-50, 6-7=-50, 7-8=-60, 8-10=-50, 37-49=-20, 35-49=-50, 11-35=-20, 16-32=-90, 7-43=-10, 1-2=-20
    - Drag: 32-43=-10, 8-16=-10

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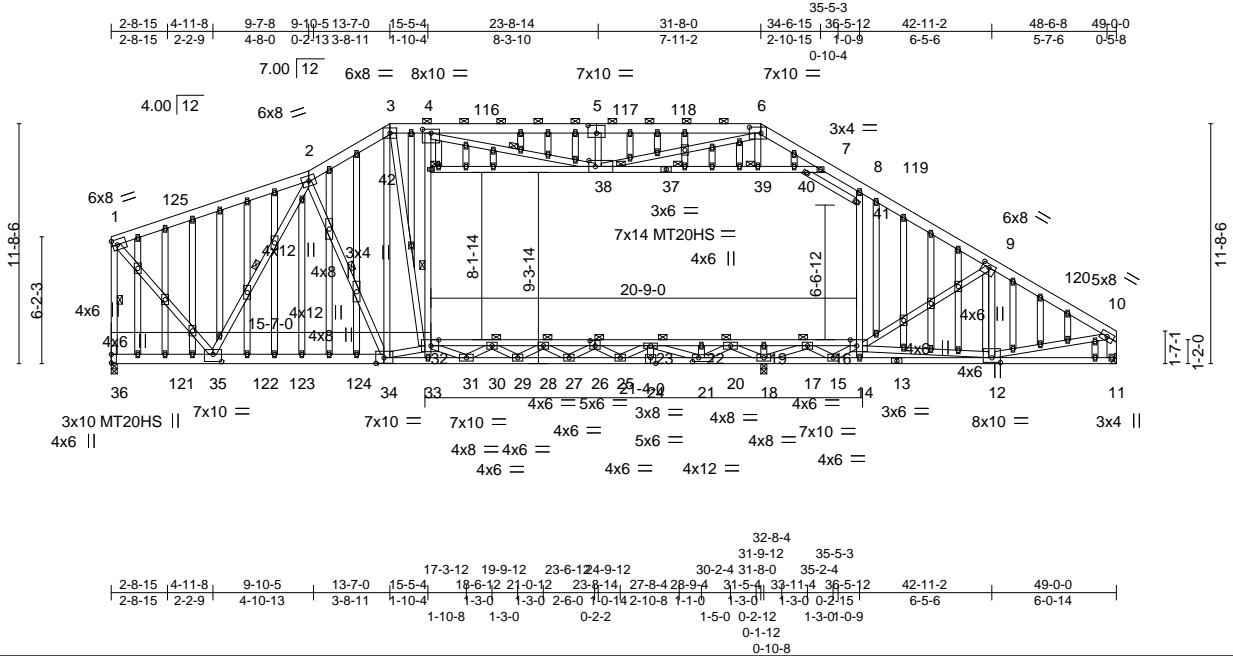


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917599
NC1 111-R	AT09G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

ID:JbnYVf1QbWGMvS3eidP34zb6LG-aNXM5Lt8Loz4jz4NYJqYJ954NCZLzzELnTpVzOU10



Scale = 1:112.3

Plate Offsets (X,Y)-- [4:0-5-0,0-2-4], [5:0-5-0,0-4-8], [6:0-6-12,0-3-8], [9:0-4-0,0-2-0], [12:0-5-0,0-2-12], [16:0-3-12,Edge], [21:0-3-8,0-2-4], [24:0-3-0,0-3-4], [26:0-3-0,0-3-0], [32:0-4-8,Edge], [34:0-4-12,0-3-4], [35:0-5-0,0-4-4], [38:0-3-12,0-3-8]

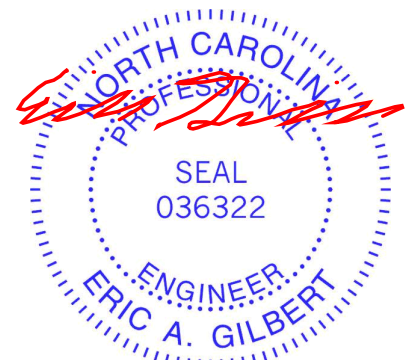
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.88	Vert(LL) -0.38 28-30 >994 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.93	Vert(CT) -0.64 28-30 >595 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.92	Horz(CT) 0.09 18 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.09 33 >999 240	Weight: 663 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 6-10: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 3-7-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-0 max.): 3-6.
BOT CHORD 2x4 SP No.2 *Except* 34-36: 2x6 SP DSS, 13-24: 2x4 SP No.1, 24-34,16-26: 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-21 5-8-2 oc bracing: 15-18 4-6-10 oc bracing: 14-15 4-11-7 oc bracing: 12-14. 3-6-0 oc bracing: 26-28 4-0-0 oc bracing: 28-30 4-6-0 oc bracing: 20-26 6-0-0 oc bracing: 30-32 10-0-0 oc bracing: 17-20, 16-17
WEBS 2x4 SP No.3 *Except* 1-36,4-33,7-37,8-14,12-16,37-42,1-35: 2x4 SP No.2 10-11: 2x6 SP No.2	WEBS 1 Row at midpt 1-36, 32-42, 38-39, 4-38, 2-35, 2-34 1 Brace at Jt(s): 38, 39, 42, 26, 30, 28, 20, 17
OTHERS 2x4 SP No.3	JOINTS

**REACTIONS.** (lb/size) 36=2611/0-3-8 (req. 0-3-14), 11=1848/Mechanical, 18=1051/0-3-8 (min. 0-1-14)  
Max Horz 36=184(LC 11)  
Max Grav 36=3265(LC 26), 11=2035(LC 2), 18=1595(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-36=-3115/0, 2-3=-2989/0, 3-4=-2724/0, 4-116=-2945/191, 116-117=-2945/191,  
5-117=-2945/191, 5-118=-2926/186, 6-118=-2926/186, 6-7=-1501/203, 7-119=-2524/0,  
8-119=-2566/0, 8-9=-3168/0, 9-120=-2608/0, 10-120=-2741/0, 10-11=-1970/0,  
1-125=-2082/0, 2-125=-2010/6  
BOT CHORD 35-122=0/2538, 122-123=0/2532, 123-124=0/2532, 34-124=0/2530, 33-34=0/2002,  
31-33=0/2058, 29-31=0/3996, 27-29=0/4668, 25-27=0/4772, 24-25=0/3669, 21-24=0/3669,  
18-21=-463/657, 15-18=-1159/0, 14-15=-1550/928, 13-14=-1301/986, 12-13=-1301/986,  
30-32=-555/0, 28-30=-1929/0, 26-28=-2423/0, 23-26=-2033/156, 22-23=-163/1494,  
20-22=-163/1494, 19-20=0/4039, 17-19=0/4039, 16-17=0/3946  
WEBS 3-32=0/1185, 32-42=-716/233, 4-42=-594/253, 37-38=-1877/0, 37-39=-1877/0,  
39-40=-1880/0, 7-40=-1614/0, 14-16=0/298, 16-41=-150/632, 8-41=-37/795, 9-12=-779/0,  
10-12=0/2200, 5-38=-523/118, 4-38=-388/868, 6-38=0/2093, 32-34=0/945, 9-16=-83/635,  
12-16=0/3259, 40-41=-337/0, 25-26=-546/0, 31-32=0/1663, 30-31=-1177/0, 29-30=0/582,  
28-29=-514/20, 23-25=0/831, 21-23=-1653/0, 20-21=0/1917, 17-18=-1073/175,  
15-17=-375/718, 15-16=-718/199, 21-22=-370/0, 3-34=-204/309, 2-35=-1348/0,  
1-35=0/2934, 18-19=-379/0, 18-20=-1990/0

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



April 21, 2023

Continued on page 2

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



Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917599
NC1 111-R	AT09G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:36:21 2023 Page 2  
ID:JbnYVf1QbWGMYS3eidP34zb6LG-aNXM5Ltl8Loz4jz4NYJqYJ954NCZLzzELnTpVzkOU10

**NOTES-**

- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2) 4-2-4 to 7-2-4, Interior(1) 7-2-4 to 17-7-8, Exterior(2) 17-7-8 to 21-10-7, Interior(1) 21-10-7 to 35-8-8, Exterior(2) 35-8-8 to 39-11-7, Interior(1) 39-11-7 to 52-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 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.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Ceiling dead load (5.0 psf) on member(s). 7-8, 38-42, 38-39, 39-40, 7-40; Wall dead load (5.0psf) on member(s).32-42, 16-41, 8-41
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 30-32, 28-30, 26-28, 23-26, 22-23, 20-22, 19-20, 17-19, 16-17
- WARNING: Required bearing size at joint(s) 36 greater than input bearing size.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- N/A
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.
- 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)**

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-60, 3-6=-60, 6-7=-60, 7-8=-70, 8-10=-60, 36-121=-20, 121-123=-100(F=-80), 11-123=-20, 16-32=-30, 7-42=-10, 1-2=-60  
Drag: 32-42=-10, 8-16=-10
- Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 2-3=-50, 3-6=-50, 6-7=-50, 7-8=-60, 8-10=-50, 36-121=-20, 121-122=-150(F=-130), 122-123=-180(F=-130), 123-124=-50, 11-124=-20, 16-32=-90, 7-42=-10, 1-2=-50  
Drag: 32-42=-10, 8-16=-10
- Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 2-3=-20, 3-6=-20, 6-7=-20, 7-8=-30, 8-10=-20, 36-121=-40, 121-123=-100(F=-60), 11-123=-40, 16-32=-30, 7-42=-10, 1-2=-20  
Drag: 32-42=-10, 8-16=-10
- Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=12, 3-116=20, 6-116=15, 6-7=17, 7-119=11, 8-119=6, 8-10=12, 36-121=-12, 121-123=-2(F=10), 11-123=-12, 16-32=-18, 7-42=-6, 1-125=22, 2-125=12  
Horz: 1-36=13, 2-3=-24, 6-119=29, 10-119=24, 10-11=24, 1-125=-34, 2-125=-24  
Drag: 32-42=-10, 8-16=-10
- Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=17, 3-118=15, 6-118=20, 6-7=12, 7-8=6, 8-120=12, 10-120=17, 36-121=-12, 121-123=-4(F=8), 11-123=-12, 16-32=-18, 7-42=-6, 1-2=12  
Horz: 1-36=-24, 2-3=-29, 6-120=24, 10-120=29, 10-11=-13, 1-2=-24  
Drag: 32-42=-10, 8-16=-10
- Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-44, 3-6=-29, 6-7=-44, 7-8=-54, 8-10=-44, 36-121=-20, 121-123=-84(F=-64), 11-123=-20, 16-32=-30, 7-42=-10, 1-2=-32  
Horz: 1-36=-15, 2-3=24, 6-10=-24, 10-11=-22, 1-2=12  
Drag: 32-42=-10, 8-16=-10
- Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-44, 3-6=-29, 6-7=-44, 7-8=-54, 8-10=-44, 36-121=-20, 121-123=-84(F=-64), 11-123=-20, 16-32=-30, 7-42=-10, 1-2=-32  
Horz: 1-36=22, 2-3=24, 6-10=-24, 10-11=15, 1-2=12  
Drag: 32-42=-10, 8-16=-10
- Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-13, 3-6=9, 6-7=3, 7-8=-3, 8-10=3, 36-121=-12, 121-123=-15(F=-3), 11-123=-12, 16-32=-18, 7-42=-6, 1-2=9  
Horz: 1-36=9, 2-3=1, 6-10=15, 10-11=14, 1-2=-21  
Drag: 32-42=-10, 8-16=-10
- Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=3, 3-6=9, 6-7=-13, 7-8=-19, 8-10=-13, 36-121=-12, 121-123=-15(F=-3), 11-123=-12, 16-32=-18, 7-42=-6, 1-2=4  
Horz: 1-36=-14, 2-3=-15, 6-10=-1, 10-11=-9, 1-2=-16  
Drag: 32-42=-10, 8-16=-10
- Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 2-3=-30, 3-6=-7, 6-7=-14, 7-8=-24, 8-10=-14, 36-121=-20, 121-123=-70(F=-50), 11-123=-20, 16-32=-30, 7-42=-10, 1-2=-7  
Horz: 1-36=18, 2-3=10, 6-10=6, 10-11=5, 1-2=-13  
Drag: 32-42=-10, 8-16=-10
- Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917599
NC1 111-R	AT09G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:36:21 2023 Page 3  
 ID:JbnYVf1QbWGMvS3eidP34zb6LG-aNXM5Ltl8Loz4jz4NyJqYJ954NCZLzELnTpVkzOU10

**LOAD CASE(S)**

- Uniform Loads (plf)
  - Vert: 2-3=-14, 3-6=-7, 6-7=-30, 7-8=-40, 8-10=-30, 36-121=-20, 121-123=-70(F=-50), 11-123=-20, 16-32=-30, 7-42=-10, 1-2=-13
  - Horz: 1-36=-5, 2-3=-6, 6-10=-10, 10-11=-18, 1-2=-7
  - Drag: 32-42=-10, 8-16=-10
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=9, 3-117=9, 6-117=2, 6-7=2, 7-8=-4, 8-10=2, 36-121=-12, 121-123=-15(F=-3), 11-123=-12, 16-32=-18, 7-42=-6, 1-2=9
    - Horz: 1-36=5, 2-3=-21, 6-10=14, 10-11=12, 1-2=-21
    - Drag: 32-42=-10, 8-16=-10
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=2, 3-117=2, 6-117=9, 6-7=9, 7-8=3, 8-10=9, 36-121=-12, 121-123=-15(F=-3), 11-123=-12, 16-32=-18, 7-42=-6, 1-2=2
    - Horz: 1-36=-12, 2-3=-14, 6-10=21, 10-11=-5, 1-2=-14
    - Drag: 32-42=-10, 8-16=-10
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=9, 3-117=9, 6-117=2, 6-7=2, 7-8=-4, 8-10=2, 36-121=-12, 121-123=-15(F=-3), 11-123=-12, 16-32=-18, 7-42=-6, 1-2=9
    - Horz: 1-36=5, 2-3=-21, 6-10=14, 10-11=12, 1-2=-21
    - Drag: 32-42=-10, 8-16=-10
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=2, 3-117=2, 6-117=9, 6-7=9, 7-8=3, 8-10=9, 36-121=-12, 121-123=-15(F=-3), 11-123=-12, 16-32=-18, 7-42=-6, 1-2=2
    - Horz: 1-36=-12, 2-3=-14, 6-10=21, 10-11=-5, 1-2=-14
    - Drag: 32-42=-10, 8-16=-10
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-7, 3-117=-7, 6-117=-15, 6-7=-15, 7-8=-25, 8-10=-15, 36-121=-20, 121-123=-74(F=-54), 11-123=-20, 16-32=-30, 7-42=-10, 1-2=-7
    - Horz: 1-36=14, 2-3=-13, 6-10=5, 10-11=3, 1-2=-13
    - Drag: 32-42=-10, 8-16=-10
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-15, 3-117=-15, 6-117=-7, 6-7=-7, 7-8=-17, 8-10=-7, 36-121=-20, 121-123=-64(F=-44), 11-123=-20, 16-32=-30, 7-42=-10, 1-2=-15
    - Horz: 1-36=-3, 2-3=-5, 6-10=13, 10-11=-14, 1-2=-5
    - Drag: 32-42=-10, 8-16=-10
- 18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 2-3=-20, 3-6=-20, 6-7=-20, 7-8=-30, 8-10=-20, 36-121=-20, 121-122=-140(F=-120), 122-123=-180(F=-120), 123-124=-60, 11-124=-20, 16-32=-110, 7-42=-10, 1-2=-20
    - Drag: 32-42=-10, 8-16=-10
- 19) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 2-3=-20, 3-6=-20, 6-7=-20, 7-8=-30, 8-10=-20, 36-121=-20, 121-122=-140(F=-120), 122-123=-180(F=-120), 123-124=-60, 11-124=-20, 16-32=-110, 7-42=-10, 1-2=-20
    - Drag: 32-42=-10, 8-16=-10
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-57, 3-6=-41, 6-7=-45, 7-8=-55, 8-10=-45, 36-121=-20, 121-122=-157(F=-137), 122-123=-187(F=-137), 123-124=-50, 11-124=-20, 16-32=-90, 7-42=-10, 1-2=-41
    - Horz: 1-36=14, 2-3=7, 6-10=5, 10-11=4, 1-2=-9
    - Drag: 32-42=-10, 8-16=-10
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-45, 3-6=-41, 6-7=-57, 7-8=-67, 8-10=-57, 36-121=-20, 121-122=-157(F=-137), 122-123=-187(F=-137), 123-124=-50, 11-124=-20, 16-32=-90, 7-42=-10, 1-2=-45
    - Horz: 1-36=-4, 2-3=-5, 6-10=-7, 10-11=-14, 1-2=-5
    - Drag: 32-42=-10, 8-16=-10
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-41, 3-117=-41, 6-117=-46, 6-7=-46, 7-8=-56, 8-10=-46, 36-121=-20, 121-122=-161(F=-141), 122-123=-191(F=-141), 123-124=-50, 11-124=-20, 16-32=-90, 7-42=-10, 1-2=-41
    - Horz: 1-36=11, 2-3=-9, 6-10=4, 10-11=2, 1-2=-9
    - Drag: 32-42=-10, 8-16=-10
- 23) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 2-3=-46, 3-117=-46, 6-117=-41, 6-7=-41, 7-8=-51, 8-10=-41, 36-121=-20, 121-122=-153(F=-133), 122-123=-183(F=-133), 123-124=-50, 11-124=-20, 16-32=-90, 7-42=-10, 1-2=-46
    - Horz: 1-36=-2, 2-3=-4, 6-10=9, 10-11=-11, 1-2=-4
    - Drag: 32-42=-10, 8-16=-10
- 24) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Continued on page 4

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NC1 111-R	AT09G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Fri Apr 21 13:36:21 2023 Page 4  
 ID:JbnYVf1QbWGMvS3eidP34zb6LG-aNXM5Ltl8LOz4jz4NYJqYJ954NCZLzzELnTpVvkzOU1O

**LOAD CASE(S)**

Uniform Loads (plf)

Vert: 2-3=-60, 3-6=-60, 6-7=-20, 7-8=-30, 8-10=-20, 36-121=-20, 121-123=-100(F=-80), 11-123=-20, 16-32=-30, 7-42=-10, 1-2=-60  
 Drag: 32-42=-10, 8-16=-10

25) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 2-3=-20, 3-6=-60, 6-7=-60, 7-8=-70, 8-10=-60, 36-121=-20, 121-123=-100(F=-80), 11-123=-20, 16-32=-30, 7-42=-10, 1-2=-20  
 Drag: 32-42=-10, 8-16=-10

26) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 2-3=-50, 3-6=-50, 6-7=-20, 7-8=-30, 8-10=-20, 36-121=-20, 121-122=-150(F=-130), 122-123=-180(F=-130), 123-124=-50, 11-124=-20, 16-32=-90, 7-42=-10, 1-2=-50  
 Drag: 32-42=-10, 8-16=-10

27) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 2-3=-20, 3-6=-50, 6-7=-50, 7-8=-60, 8-10=-50, 36-121=-20, 121-122=-150(F=-130), 122-123=-180(F=-130), 123-124=-50, 11-124=-20, 16-32=-90, 7-42=-10, 1-2=-20  
 Drag: 32-42=-10, 8-16=-10

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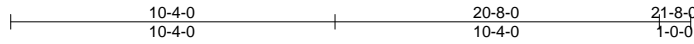


818 Soundside Road  
 Edenton, NC 27932

Job NC1_111-R	Truss C01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917600
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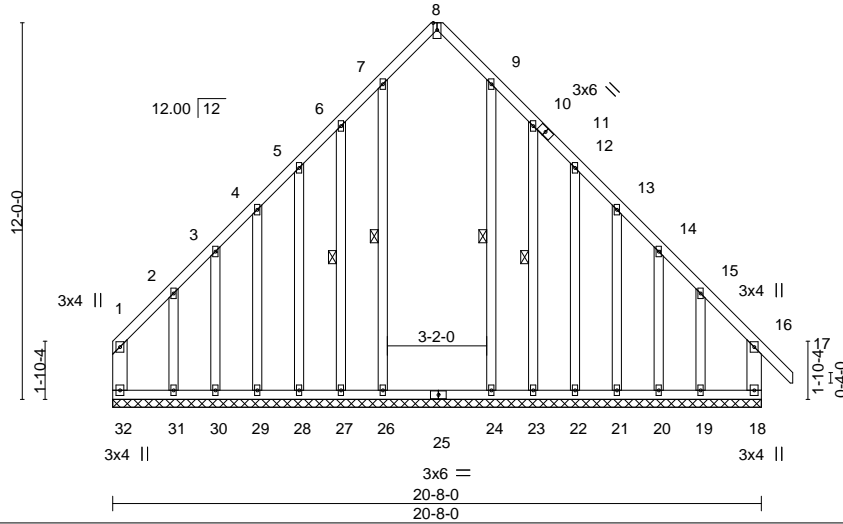
Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:35 2023 Page 1

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3x6 ||

Scale = 1:73.4



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	-0.01	17	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.01	17	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01	18	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R					Weight: 201 lb	FT = 20%

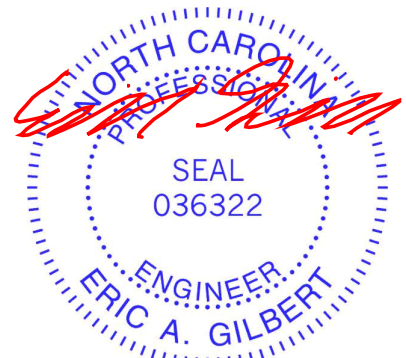
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x6 SP No.2  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 7-26, 6-27, 9-24, 10-23

**REACTIONS.** All bearings 20-8-0.  
(lb) - Max Horz 32=-263(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 28, 29, 30, 22, 21, 20 except 32=-186(LC 10), 18=-158(LC 11), 27=-103(LC 12), 31=-303(LC 12), 23=-102(LC 13), 19=-330(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 27, 28, 29, 30, 23, 22, 21, 20 except 32=301(LC 9), 18=342(LC 19), 26=305(LC 22), 31=298(LC 10), 24=308(LC 21), 19=296(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 15-16=-254/185, 16-18=-257/104

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-2-12 to 3-3-4, Interior(1) 3-3-4 to 10-4-0, Exterior(2) 10-4-0 to 14-8-12, Interior(1) 14-8-12 to 21-7-8 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=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 29, 30, 22, 21, 20 except (jt=lb) 32=186, 18=158, 27=103, 31=303, 23=102, 19=330.



April 21, 2023

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

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

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

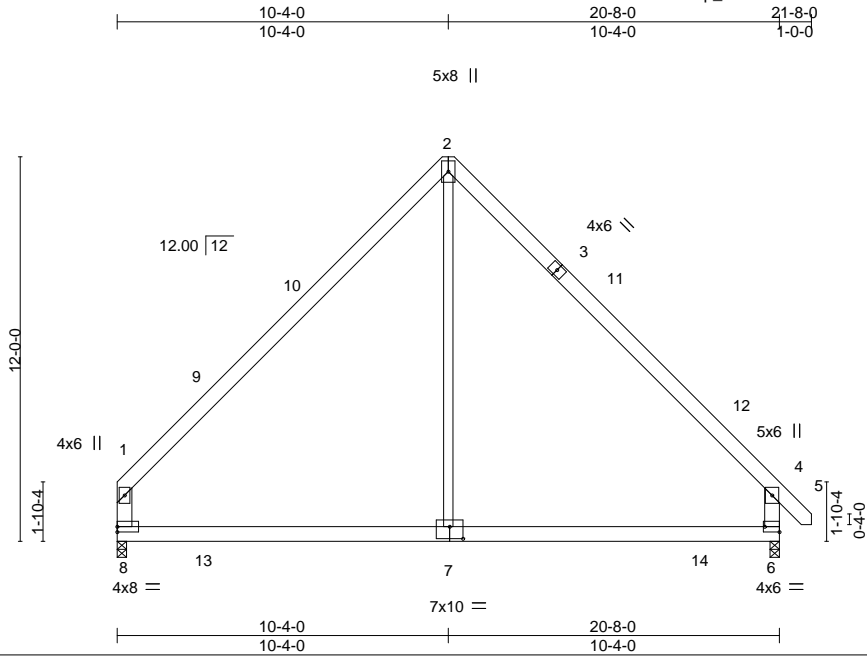


818 Soundside Road  
Edenton, NC 27932

Job NC1_111-R	Truss C02	Truss Type COMMON	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	I57917601
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:37 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-p\_QdRCVnE?hKdcY?8LWWoYqdc9GV86d3qV0lszOV0u



Scale = 1:71.9

Plate Offsets (X, Y)--	[6:Edge,0-2-0], [7:0-5-0,0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.69	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.50	Vert(LL) -0.11 6-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.23	Vert(CT) -0.18 6-7 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MR	Horz(CT) 0.01 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) -0.08 7-8 >999 240	Weight: 143 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.2 *Except* 2-7: 2x4 SP No.3	

**REACTIONS.** (size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=-255(LC 8)  
 Max Grav 8=960(LC 20), 6=1006(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-8=-763/113, 1-2=-937/112, 2-4=-947/114, 4-6=-837/145  
 BOT CHORD 7-8=-2/581, 6-7=-2/583  
 WEBS 2-7=0/616

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 10-4-0, Exterior(2) 10-4-0 to 14-6-15, Interior(1) 14-6-15 to 21-6-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



April 21, 2023

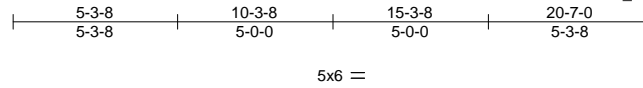


Job NC1_111-R	Truss C04GR	Truss Type COMMON	Qty 1	Ply 3	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917602
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:38 2023 Page 1

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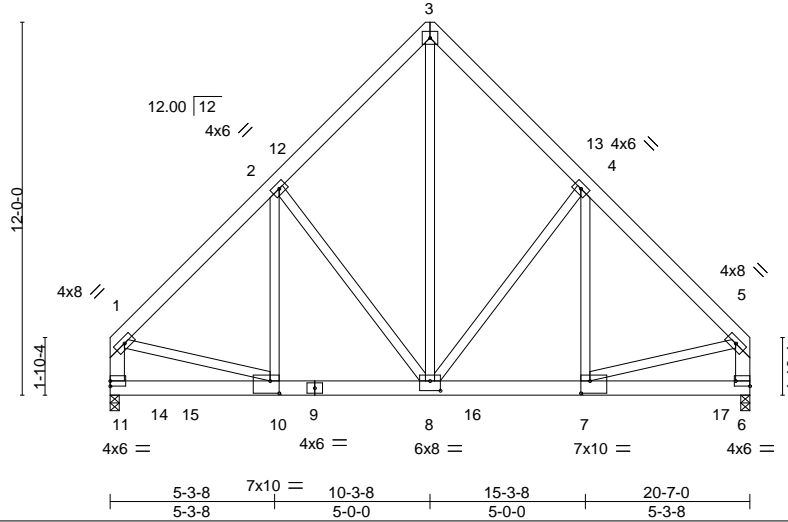


Plate Offsets (X, Y)-- [6:Edge,0-2-0], [7:0-3-8,0-4-12], [8:0-4-0,0-3-12], [10:0-3-8,0-4-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	-0.05	7-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.11	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.71	Horz(CT)	0.02	6	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-MS	Wind(LL)	0.04	7-8	>999		
								Weight: 587 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
1-11,5-6: 2x6 SP No.2

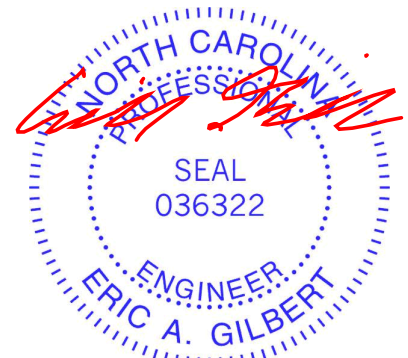
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 11=0-3-8, 6=0-3-8  
Max Horz 11=241(LC 5)  
Max Uplift 11=-429(LC 8), 6=-501(LC 9)  
Max Grav 11=6577(LC 15), 6=7506(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-11=-4522/297, 1-2=-5002/360, 2-3=-4190/390, 3-4=-4224/389, 4-5=-6725/493, 5-6=-6040/415  
BOT CHORD 10-11=-211/673, 8-10=-265/3591, 7-8=-281/4687, 6-7=-81/690  
WEBS 3-8=-482/5498, 4-8=-2719/355, 4-7=-267/3782, 5-7=-250/4176, 2-8=-898/200, 2-10=-49/1043, 1-10=-166/3048

- NOTES-**
- 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.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=429, 6=501.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1662 lb down and 131 lb up at 0-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-5=-60, 11-15=-20, 15-16=-359(F=-339), 16-17=-876(F=-856), 6-17=-20



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Continued on page 2

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job NC1_111-R	Truss C04GR	Truss Type COMMON	Qty 1	Ply <b>3</b>	Caruso-Tillery1:OYLNC1 111 I57917602 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:39 2023 Page 2  
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**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 14=-1545(F)

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

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818 Soundside Road  
Edenton, NC 27932

Job NC1_111-R	Truss D01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917603
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:40 2023 Page 1

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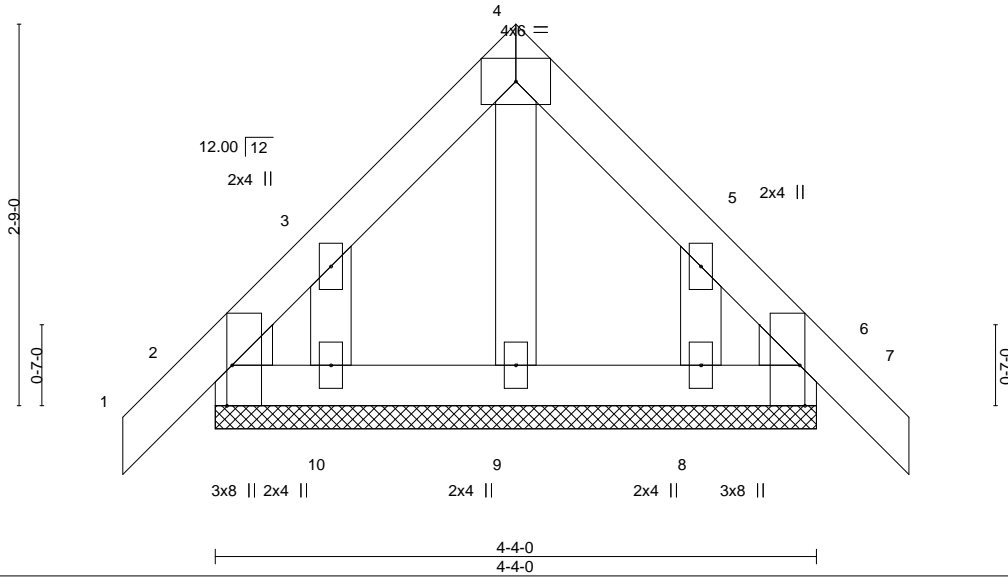


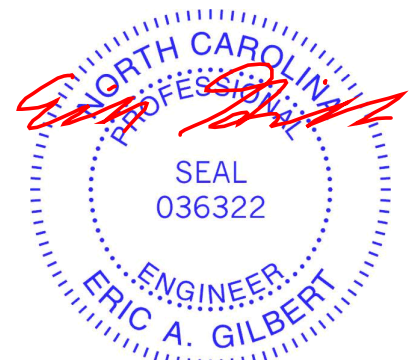
Plate Offsets (X,Y)--	[2:0-3-8,Edge], [6:0-3-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.03	Vert(LL) -0.00 6 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.01	Vert(CT) -0.00 6 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 26 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3 , Right: 2x4 SP No.3	

**REACTIONS.** All bearings 4-4-0.  
 (lb) - Max Horz 2--56(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 1-4-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 10, 8.



April 21, 2023

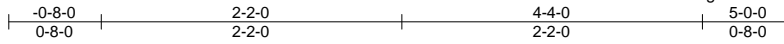
Job NC1_111-R	Truss D02	Truss Type COMMON	Qty 6	Ply 1	Caruso-Tillery1:OYLNC1 111 I57917604
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:41 2023 Page 1

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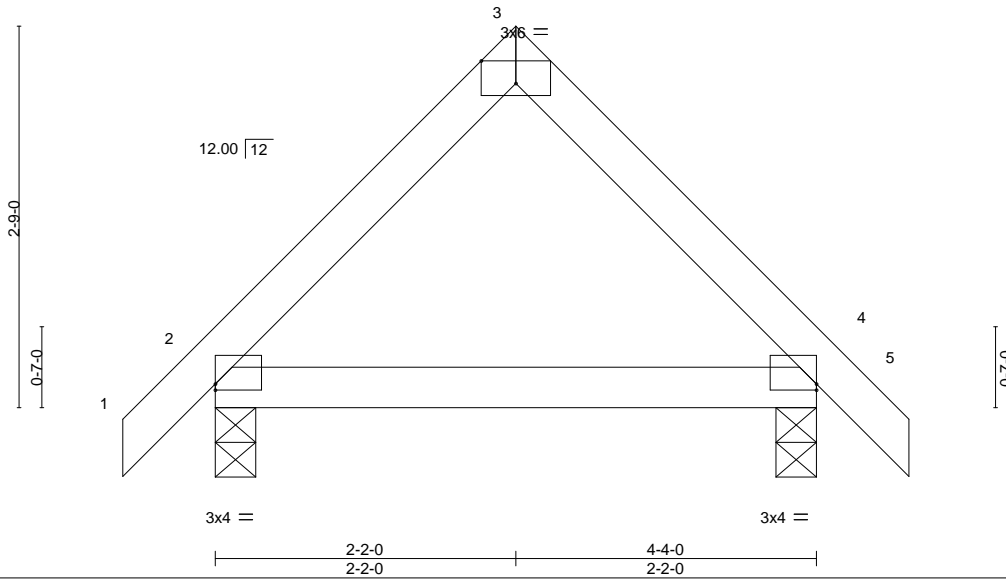


Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [3:0-3-0,Edge], [4:Edge,0-0-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.08	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(LL) -0.01 8-11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.02 8-11 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 2 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.00 8-11 >999 240	Weight: 19 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

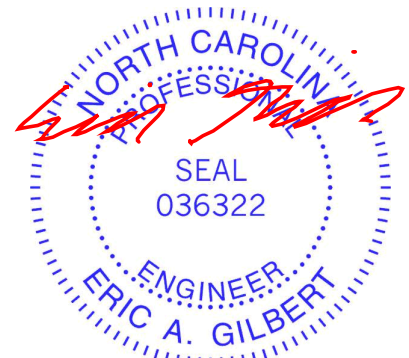
**REACTIONS.**

(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=-56(LC 10)  
Max Uplift 2=-9(LC 12), 4=-9(LC 13)  
Max Grav 2=213(LC 1), 4=213(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



April 21, 2023

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

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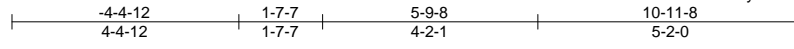
Job NC1_111-R	Truss E01	Truss Type QUEENPOST	Qty 5	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917605
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

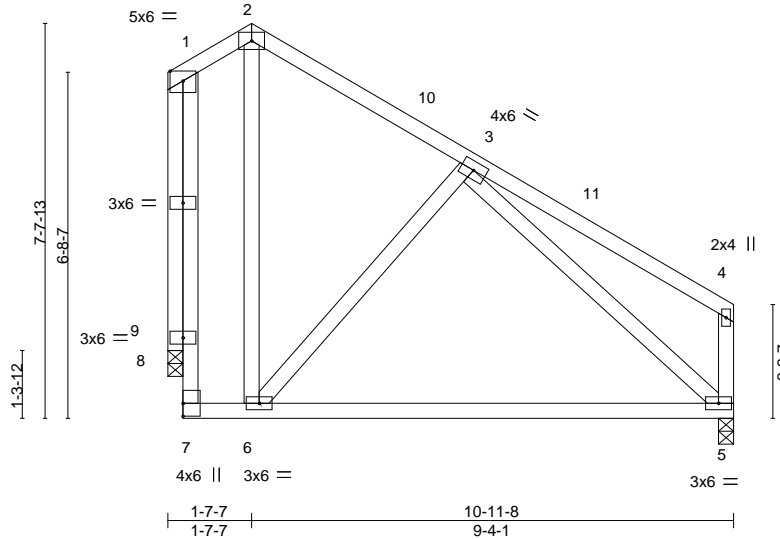
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:42 2023 Page 1

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7.00 | 12 4x6 =

Scale = 1:44.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	-0.23 5-6	>568	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.48 5-6	>268	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.29	Horz(CT)	-0.03 5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.07 5-6	>999	240	Weight: 84 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 1-7,4-5: 2x4 SP No.2  
 OTHERS 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

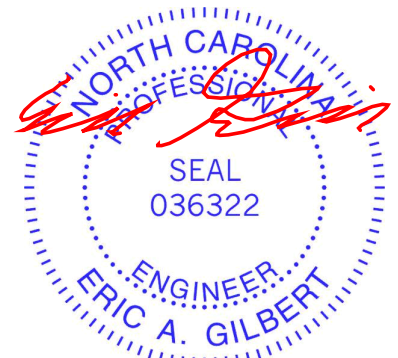
(size) 5=0-3-8, 9=0-3-8  
 Max Horz 9=-142(LC 8)  
 Max Uplift 9=-69(LC 13)  
 Max Grav 5=426(LC 1), 9=404(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS 2-6=-21/310, 3-6=-272/146, 1-9=-405/69

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 4-7-7, Interior(1) 4-7-7 to 10-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.



April 21, 2023

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

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



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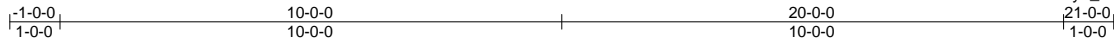


Job NC1_111-R	Truss G07G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917606
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:44 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-6LLGvbbAa8aLZhaL3J89a0dyL\_IdHJ14R5CdbOzOV0n



4x6 =

Scale = 1:45.9

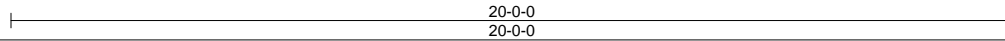
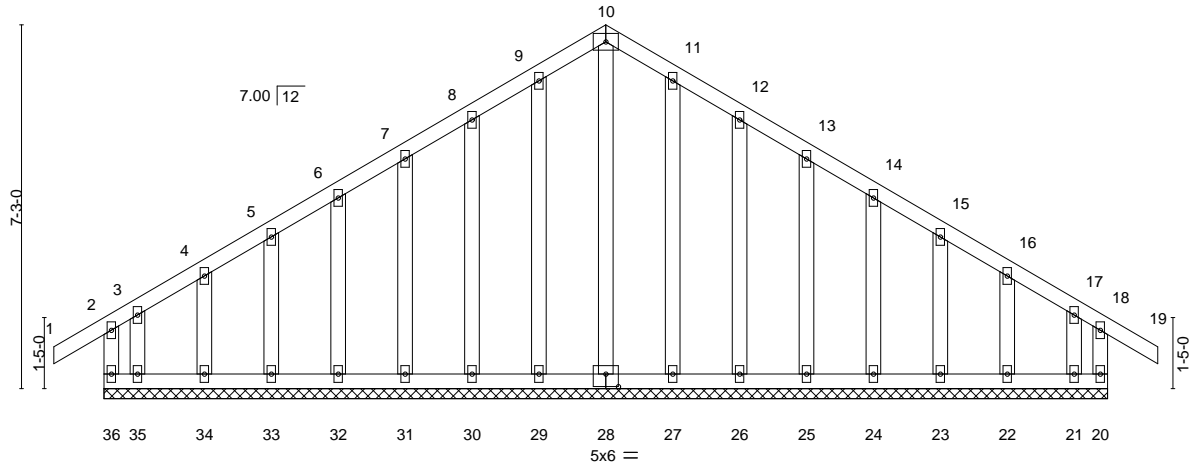


Plate Offsets (X,Y)--	[28:0-3-0,0-3-0]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	-0.00	19	n/r 120
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.00	19	n/r 120
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	-0.00	20	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R				
							<b>PLATES</b> MT20
							<b>GRIP</b> 244/190
							Weight: 156 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 20-0-0.  
(lb) - Max Horz 36=161(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 29, 30, 31, 32, 33, 34, 27, 26, 25, 24, 23, 22 except 36=194(LC 8), 20=154(LC 9), 35=193(LC 9), 21=160(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 20, 28, 29, 30, 31, 32, 33, 34, 35, 27, 26, 25, 24, 23, 22, 21 except 36=252(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 10-0-0, Corner(3) 10-0-0 to 13-0-0, Exterior(2) 13-0-0 to 21-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord web bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 30, 31, 32, 33, 34, 27, 26, 25, 24, 23, 22 except (it=lb) 36=194, 20=154, 35=193, 21=160.



April 21, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



818 Soundside Road  
Edenton, NC 27932



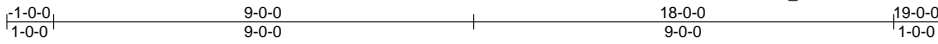
Job NC1_111-R	Truss H01G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917608
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:48 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-\_6bnizeheN4m2Ju7I9C5ksodgb7ED5KgMjArI9zOV0j



4x6 =

Scale = 1:49.4

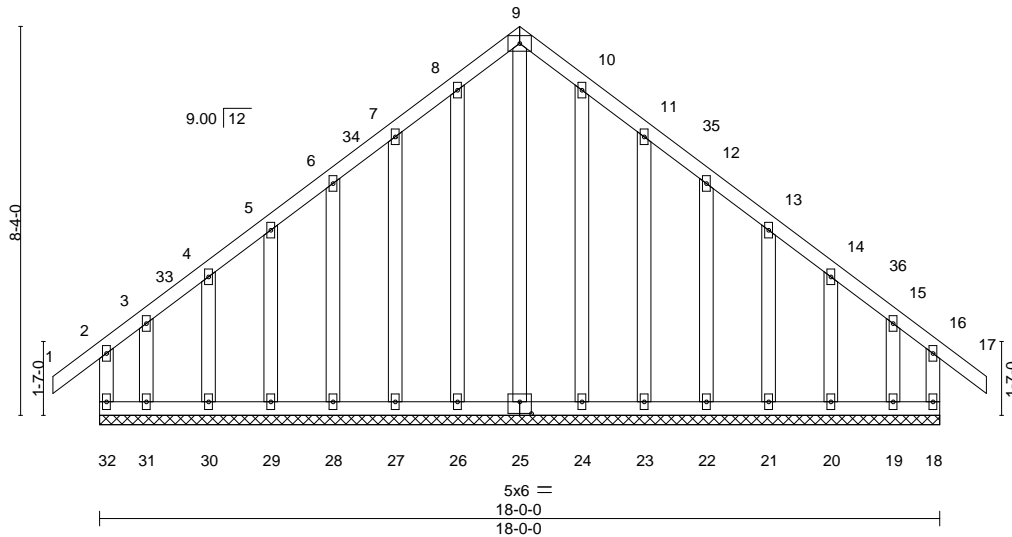


Plate Offsets (X,Y)--	[25:0-3-0-0-3-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.00	17	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.01	17	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.24	Horz(CT)	-0.00	18	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 156 lb	FT = 20%

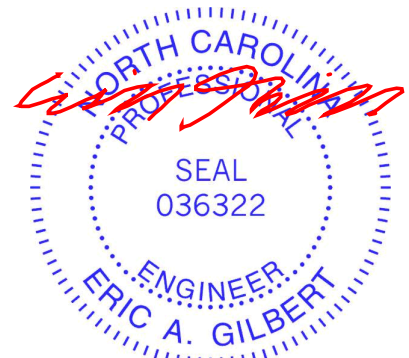
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**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 18-0-0.  
 (lb) - Max Horz 32=187(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 27, 28, 29, 30, 23, 22, 21, 20 except 32=182(LC 8), 18=158(LC 9), 31=180(LC 9), 19=162(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 32, 18, 25, 26, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20, 19

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 1-0-0 to 2-0-0, Interior(1) 2-0-0 to 9-0-0, Exterior(2) 9-0-0 to 13-0-0, Interior(1) 13-0-0 to 19-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 28, 29, 30, 23, 22, 21, 20 except (jt=lb) 32=182, 18=158, 31=180, 19=162.



April 21, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



818 Soundside Road  
 Edenton, NC 27932

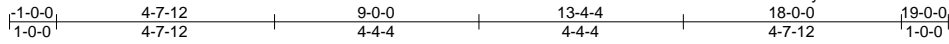
Job NC1_111-R	Truss H02	Truss Type COMMON	Qty 5	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	I57917609
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:49 2023 Page 1

ID:JbnYVf1QbWGMVvS3eidP34zb6LG-Sj99yJeJPhCdFSTJrskKH4KkJ?IPyUnqbNwOHbzOV0i



4x6 =

Scale = 1:49.1

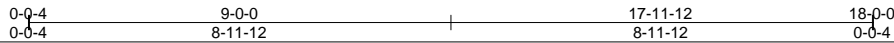
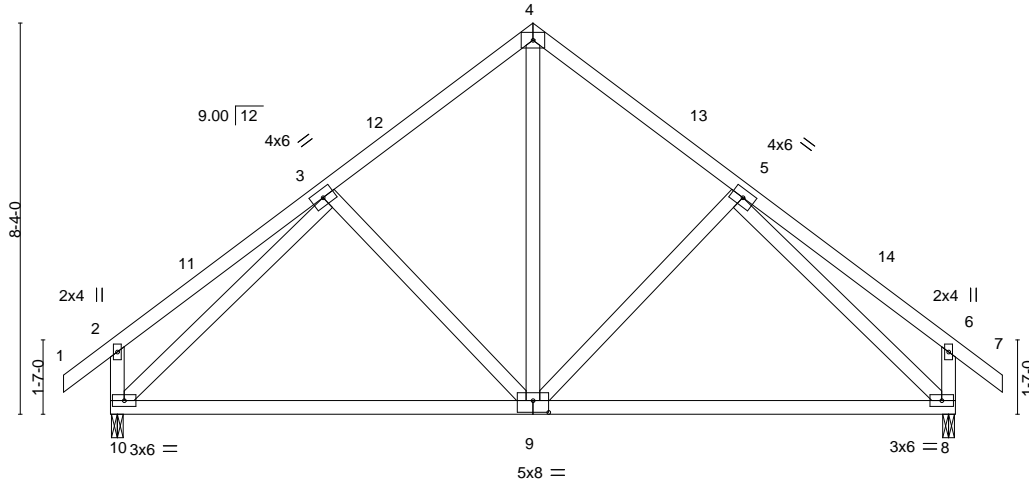


Plate Offsets (X,Y)-- [9:0-4-0,0-3-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.12	9-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.25	8-9	>856		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.01	9	>999		
								Weight: 116 lb	FT = 20%

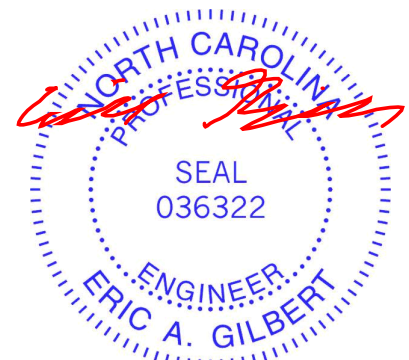
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

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

**REACTIONS.** (size) 10=0-3-0, 8=0-3-0  
 Max Horz 10=187(LC 11)  
 Max Uplift 10=-1(LC 12), 8=-1(LC 13)  
 Max Grav 10=777(LC 1), 8=777(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-10=-266/104, 3-4=-605/99, 4-5=-605/99, 6-8=-266/104  
 BOT CHORD 9-10=-31/542, 8-9=0/498  
 WEBS 4-9=-36/418, 5-8=-607/5, 3-10=-607/5

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 9-0-0, Exterior(2) 9-0-0 to 13-5-15, Interior(1) 13-5-15 to 19-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 8.



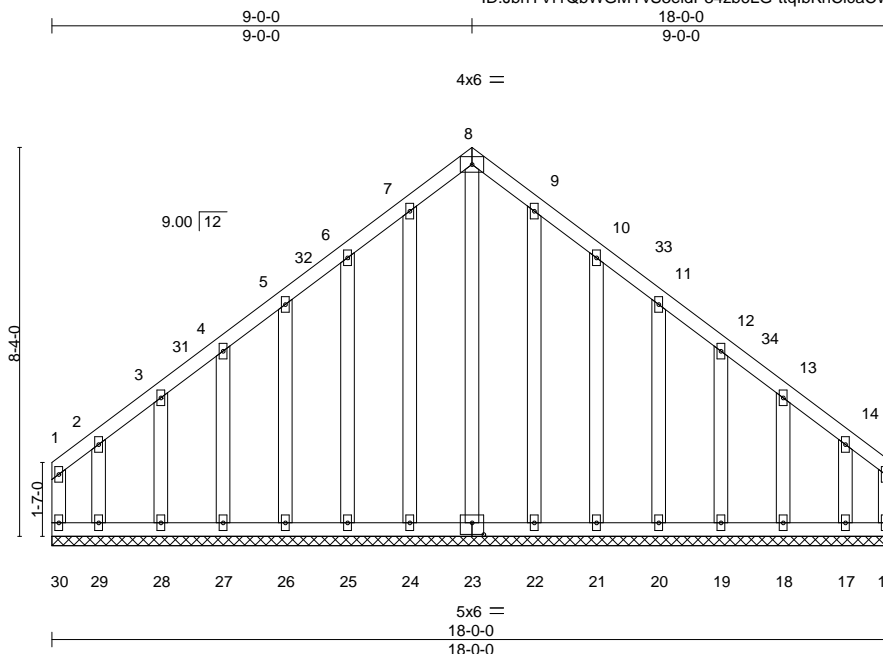
April 21, 2023

Job NC1_111-R	Truss H03G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917610
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:52 2023 Page 1  
ID:JbnYVf1QbWGMvS3eidP34zb6LG-ttqlbKhCicaCWwBuX\_H1uiyJiCUB9ufGHK82uwzOV0f



Scale = 1:49.4

Plate Offsets (X,Y)--	[23:0-3-0-0-3-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.00	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R					Weight: 152 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.** All bearings 18-0-0.  
(lb) - Max Horz 30=170(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 25, 26, 27, 28, 21, 20, 19, 18 except 30=181(LC 8), 16=160(LC 9), 29=178(LC 9), 17=161(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 30, 16, 23, 24, 25, 26, 27, 28, 29, 22, 21, 20, 19, 18, 17

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-0-0, Exterior(2) 9-0-0 to 13-0-0, Interior(1) 13-0-0 to 17-10-4 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=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 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 1-4-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 26, 27, 28, 21, 20, 19, 18 except (jt=lb) 30=181, 16=160, 29=178, 17=161.



April 21, 2023



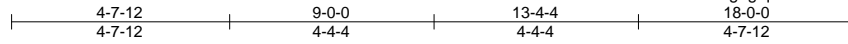
Job NC1_111-R	Truss H04	Truss Type COMMON	Qty 5	Ply 1	Caruso-Tillery1:OYLNC1 111 I57917611
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:53 2023 Page 1

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4x6 =

Scale = 1:49.1

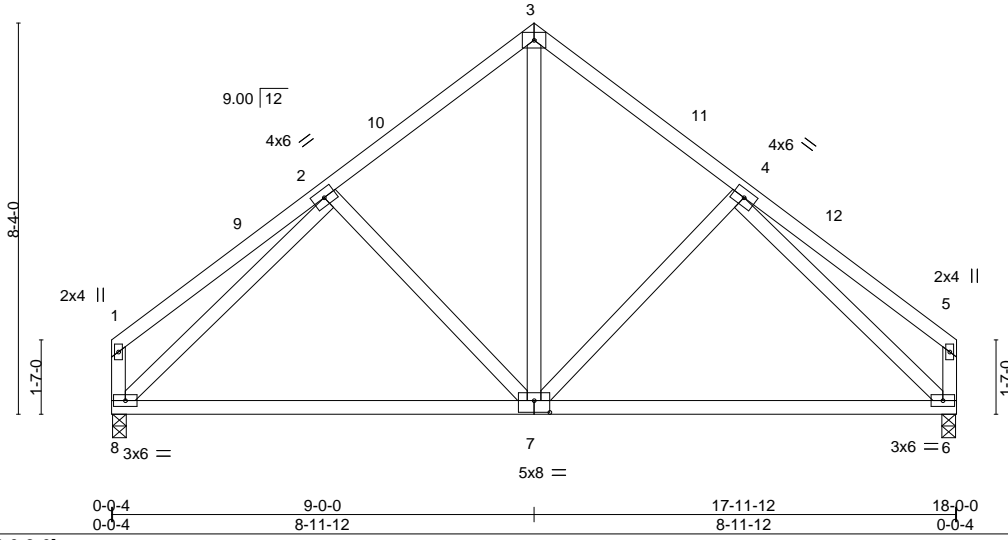


Plate Offsets (X,Y)--	[7:0-4:0,0-3:0]
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<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.39	Vert(LL) -0.12 7-8 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.75	Vert(CT) -0.25 7-8 >855 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.49	Horz(CT) 0.01 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.01 7 >999 240	Weight: 112 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=170(LC 10)  
 Max Grav 8=708(LC 1), 6=708(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-612/100, 3-4=-612/100  
 BOT CHORD 7-8=-38/543, 6-7=-27/508  
 WEBS 3-7=-39/423, 4-6=-623/38, 2-8=-623/38

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-0-0, Exterior(2) 9-0-0 to 13-5-15, Interior(1) 13-5-15 to 17-10-4 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=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



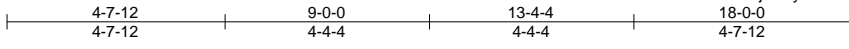
April 21, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job NC1_111-R	Truss H05GR	Truss Type COMMON	Qty 1	Ply 3	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917612
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:55 2023 Page 1

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Scale = 1:49.1

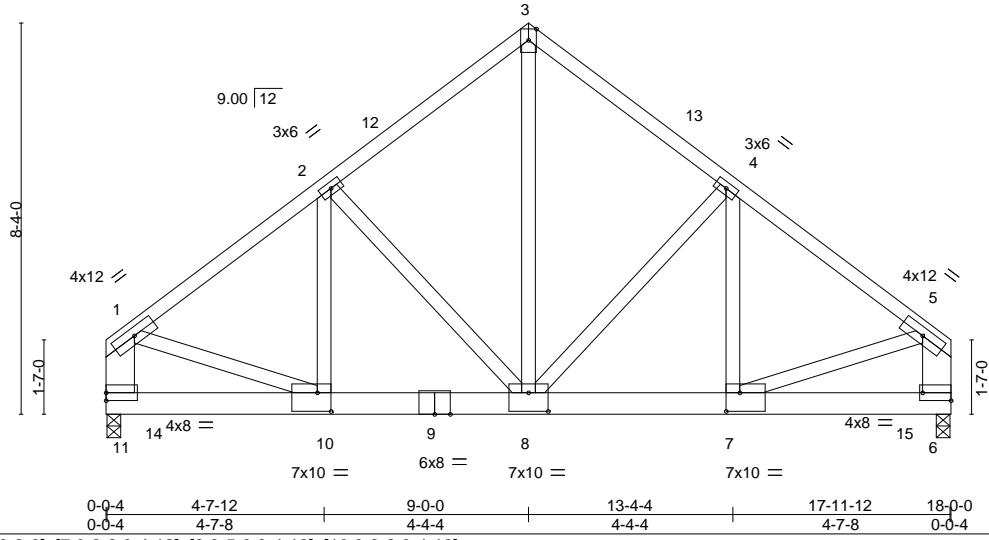


Plate Offsets (X, Y)--	[6:Edge,0-2-0], [7:0-3-8,0-4-12], [8:0-5-0,0-4-12], [10:0-3-8,0-4-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	-0.06	8-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 1.00	Vert(CT)	-0.13	8-10	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.65	Horz(CT)	0.02	6	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-MS	Wind(LL)	0.05	8-10	>999	Weight: 413 lb	FT = 20%

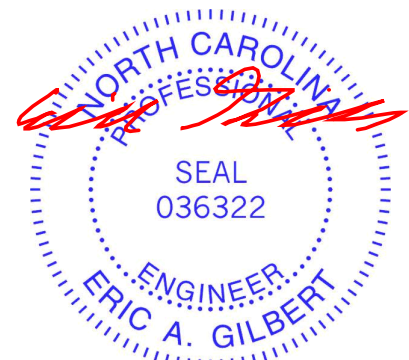
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 1-11,5-6: 2x8 SP DSS	

**REACTIONS.** (size) 11=0-3-8 (req. 0-3-12), 6=0-3-8 (req. 0-3-12)  
 Max Horz 11=-169(LC 4)  
 Max Uplift 11=-692(LC 8), 6=-692(LC 9)  
 Max Grav 11=9574(LC 15), 6=9564(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-11=-7926/590, 1-2=-9480/703, 2-3=-7386/601, 3-4=-7409/601, 4-5=-9482/703, 5-6=-7915/589  
 BOT CHORD 10-11=-144/979, 8-10=-577/7611, 7-8=-516/7537, 6-7=-84/859  
 WEBS 3-8=-674/8559, 4-8=-2342/278, 4-7=-191/2795, 5-7=-479/7015, 2-8=-2447/278, 2-10=-190/2810, 1-10=-478/6967

- NOTES-**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x8 - 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 0-4-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - WARNING: Required bearing size at joint(s) 11, 6 greater than input bearing size.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=692, 6=692.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-5=-60, 11-14=-20, 14-15=-1060(F=-1040), 6-15=-20

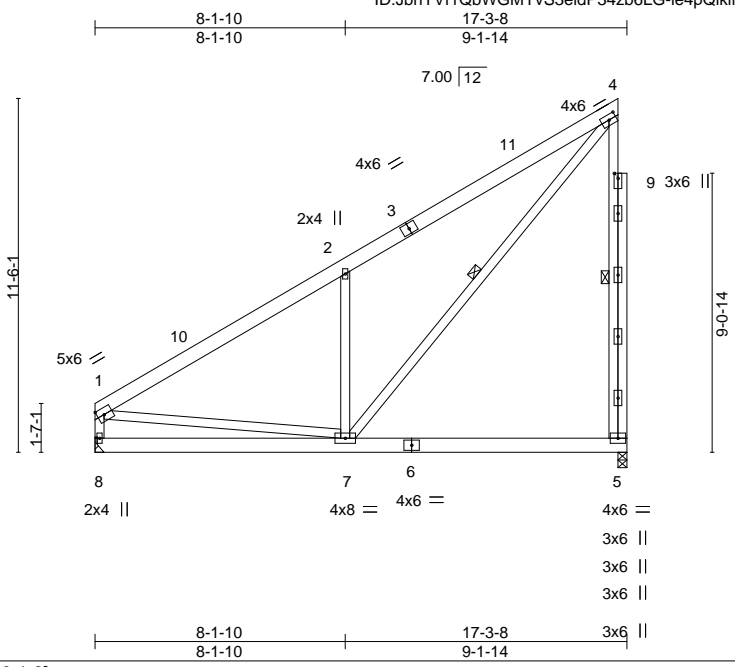


April 21, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 818 Soundside Road Edenton, NC 27932
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Job NC1_111-R	Truss M01	Truss Type MONO TRUSS	Qty 4	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917613
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:56 2023 Page 1  
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Scale = 1:74.9

Plate Offsets (X, Y)--	[4:0-2-14,0-2-0], [9:0-2-0,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.85	Vert(LL) -0.04	5-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.09	5-7	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.37	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.03	5-7	>999	240		
							Weight: 156 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 4-5,4-7,1-8: 2x4 SP No.2	WEBS 1 Row at midpt 4-5, 4-7

**REACTIONS.** (size) 8=Mechanical, 5=0-3-8  
 Max Horz 8=327(LC 9)  
 Max Uplift 8=-4(LC 12), 5=-147(LC 12)  
 Max Grav 8=678(LC 1), 5=1157(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-780/68, 2-4=-825/215, 4-5=-1075/220, 1-8=-604/68  
 BOT CHORD 7-8=-421/554  
 WEBS 2-7=-599/284, 4-7=-235/929, 1-7=0/469

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 17-1-12 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=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 8 except (jt=lb) 5=147.
  - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 461 lb down and 36 lb up at 17-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 7) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 5-8=-20, 1-4=-60  
 Concentrated Loads (lb)  
 Vert: 4=-428(F)



April 21, 2023

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 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



Job NC1_111-R	Truss M03G	Truss Type GABLE	Qty 2	Ply 1	Caruso-Tillery1:OYLNC1 111	157917615
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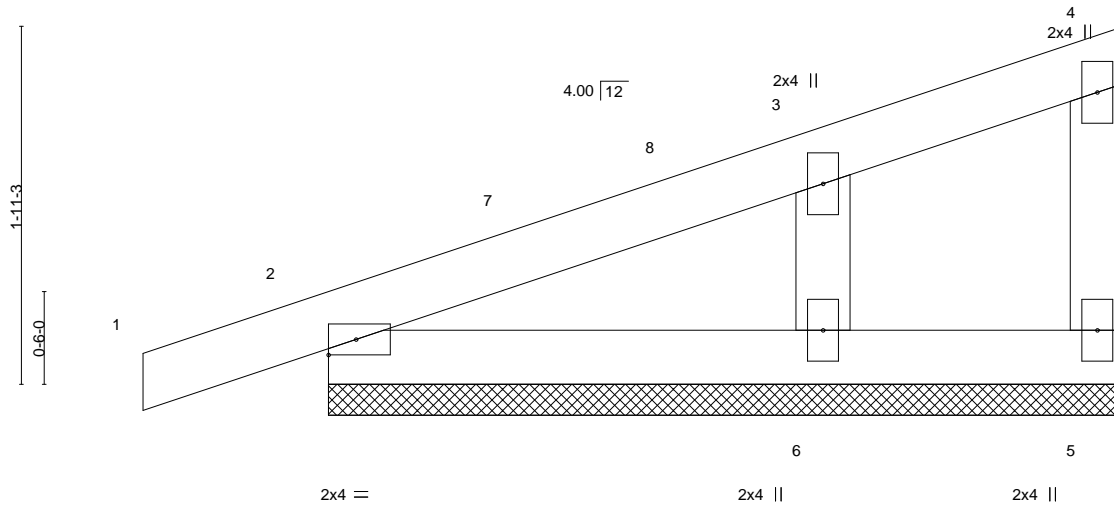
Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:28:58 2023 Page 1

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Scale = 1:12.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 18 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

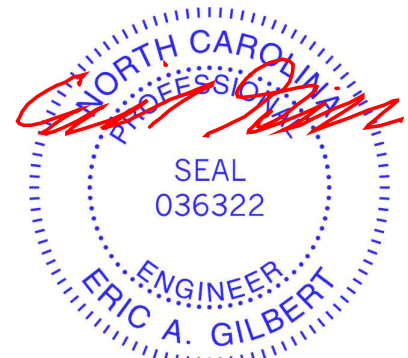
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-3-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=4-3-8, 5=4-3-8, 6=4-3-8  
 Max Horz 2=55(LC 9)  
 Max Uplift 2=-35(LC 8), 5=-3(LC 9), 6=-26(LC 12)  
 Max Grav 2=162(LC 1), 5=30(LC 1), 6=200(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 4-1-12 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=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 5, 6.



April 21, 2023

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

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



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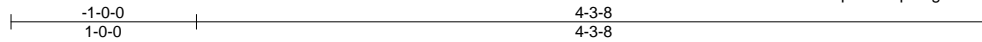
Job NC1_111-R	Truss M04	Truss Type MONO TRUSS	Qty 4	Ply 1	Caruso-Tillery1:OYLNC1 111 I57917616
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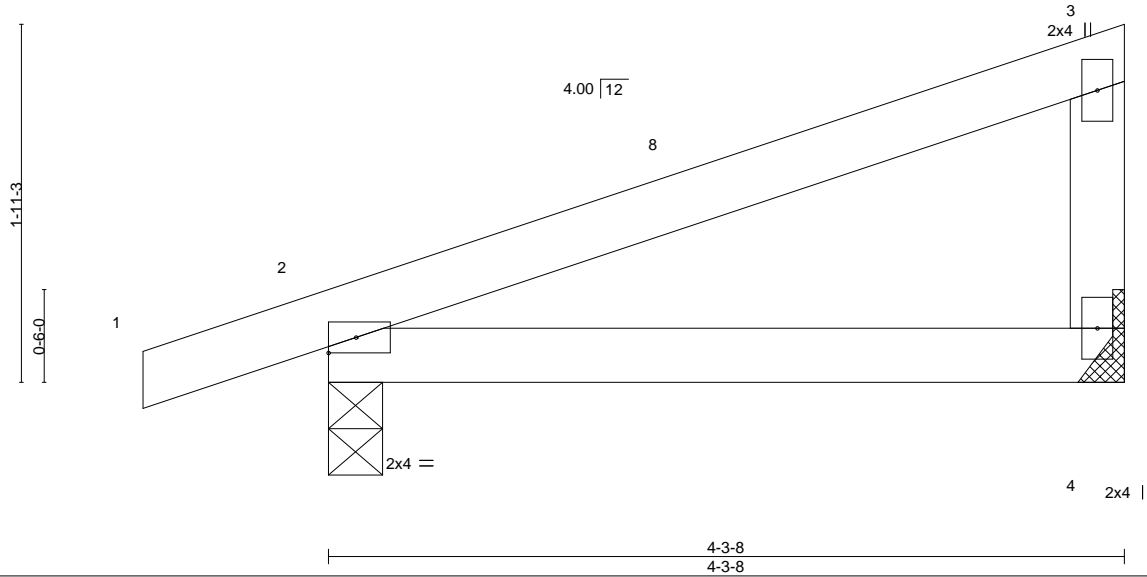
Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:00 2023 Page 1

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Scale = 1:12.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.01	4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.03	4-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.01	4-7	>999	240		
									Weight: 17 lb	FT = 20%

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

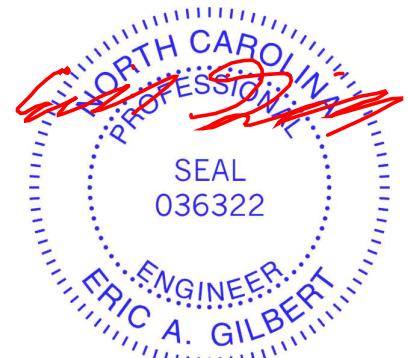
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-3-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 4=Mechanical  
 Max Horz 2=56(LC 11)  
 Max Uplift 2=42(LC 8), 4=17(LC 12)  
 Max Grav 2=233(LC 1), 4=159(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 4-1-12 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=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 4.



April 21, 2023

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

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



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Job	Truss	Truss Type	Qty	Ply	Caruso-Tillery1:OYLNC1 111	157917617
NC1_111-R	M05G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:02 2023 Page 1

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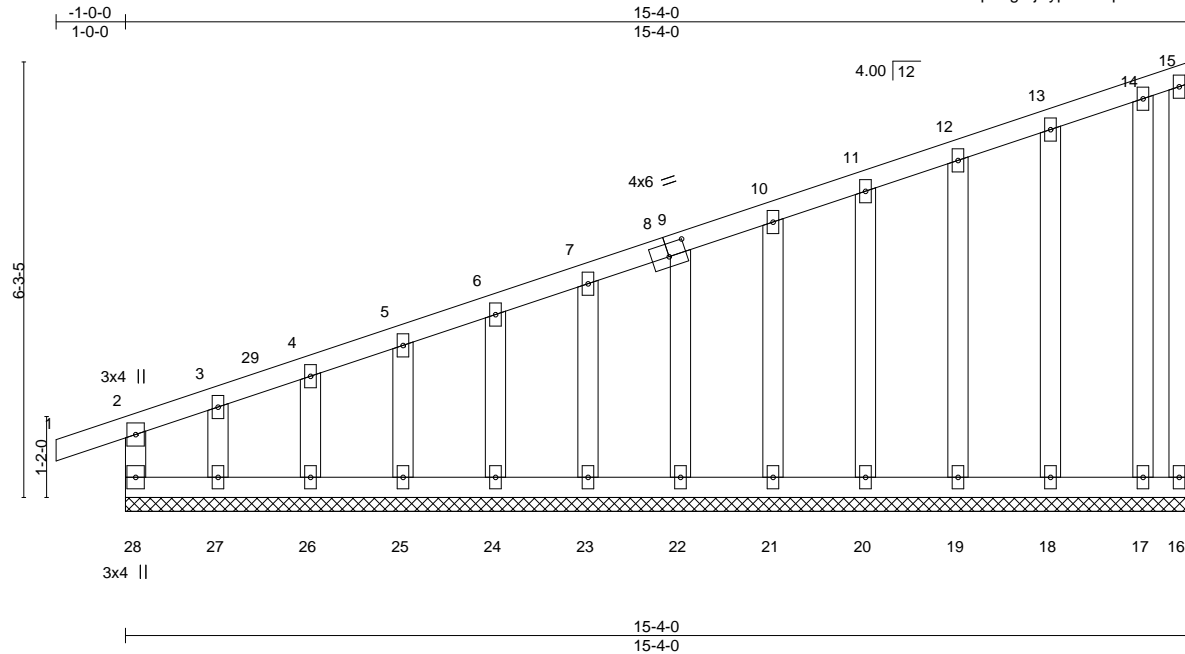


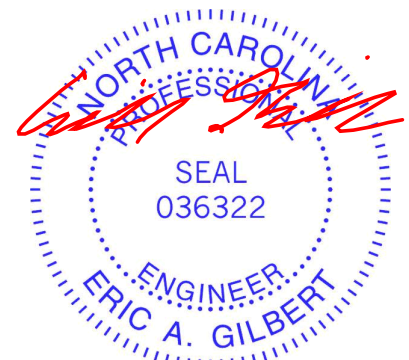
Plate Offsets (X,Y)--	[8:0-3-0,0-2-4]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.00	2	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.01	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 112 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
OTHERS	2x4 SP No.3		

**REACTIONS.** All bearings 15-4-0.  
 (lb) - Max Horz 28=201(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 16, 25, 24, 23, 22, 21, 20, 19, 18, 17 except 27=-171(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 28, 16, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-292/153

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 15-2-4 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=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 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 1-4-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 25, 24, 23, 22, 21, 20, 19, 18, 17 except (jt=lb) 27=171.



April 21, 2023

Job NC1_111-R	Truss M06	Truss Type MONO TRUSS	Qty 10	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917618
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:03 2023 Page 1  
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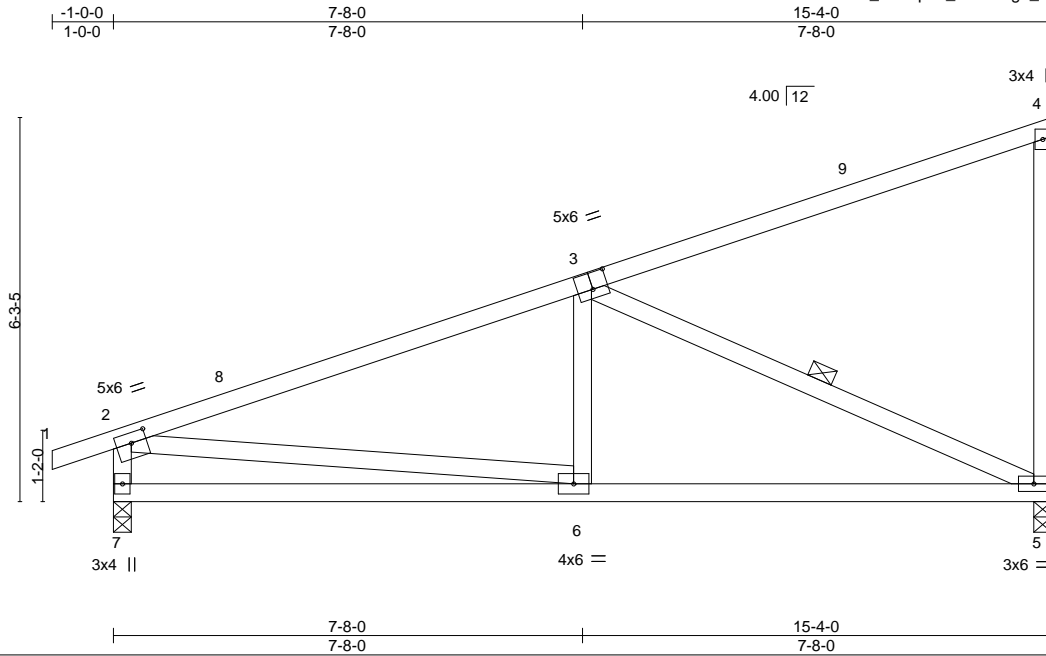


Plate Offsets (X, Y)--	[2:0-3-0,0-2-0], [3:0-3-0,0-3-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.74	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.60	Vert(LL) -0.08 5-6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.32	Vert(CT) -0.16 5-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.01 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.02 5-6 >999 240	Weight: 85 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-10-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 3-5

**REACTIONS.** (size) 7=0-3-8, 5=0-3-8  
 Max Horz 7=201(LC 11)  
 Max Uplift 7=-69(LC 8), 5=-68(LC 12)  
 Max Grav 7=673(LC 1), 5=599(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-7=-605/115, 2-3=-886/57  
 BOT CHORD 6-7=-257/356, 5-6=-117/772  
 WEBS 2-6=0/505, 3-6=0/295, 3-5=-830/123

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 15-2-4 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=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.

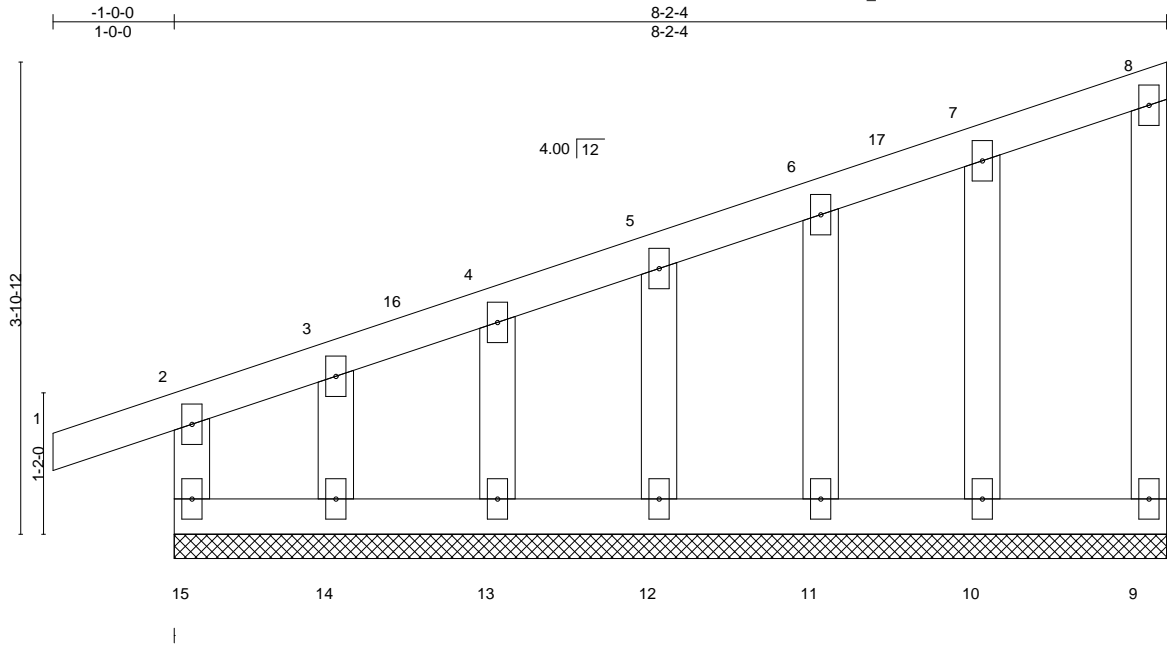


Job NC1_111-R	Truss P07G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	I57917619
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:05 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-\_N7CJnrMebDMawhOnD04wR?XORwRiqmAGsoErgzOV0S



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.19	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	-0.00	1	n/r		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	-0.00	9	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R					Weight: 47 lb	FT = 20%
	Code IRC2015/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 8-2-4.  
 (lb) - Max Horz 15=121(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 9, 14, 13, 12, 11, 10  
 Max Grav All reactions 250 lb or less at joint(s) 15, 9, 14, 13, 12, 11, 10

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 8-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) All plates are 2x4 MT20 unless otherwise indicated.
- 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 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 14, 13, 12, 11, 10.



April 21, 2023

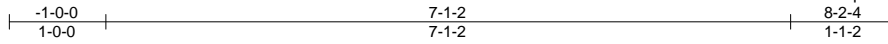
Job NC1_111-R	Truss P08	Truss Type MONO TRUSS	Qty 6	Ply 1	Caruso-Tillery1:OYLNC1 111	157917620
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:07 2023 Page 1

ID:JbnYVf1QbWGMYS3eidP34zb6LG-xmEzkTscADT4qDrmve2Y?s4ioFW\_AhvTkAHLwZzOV0Q



Scale: 1/2"=1'

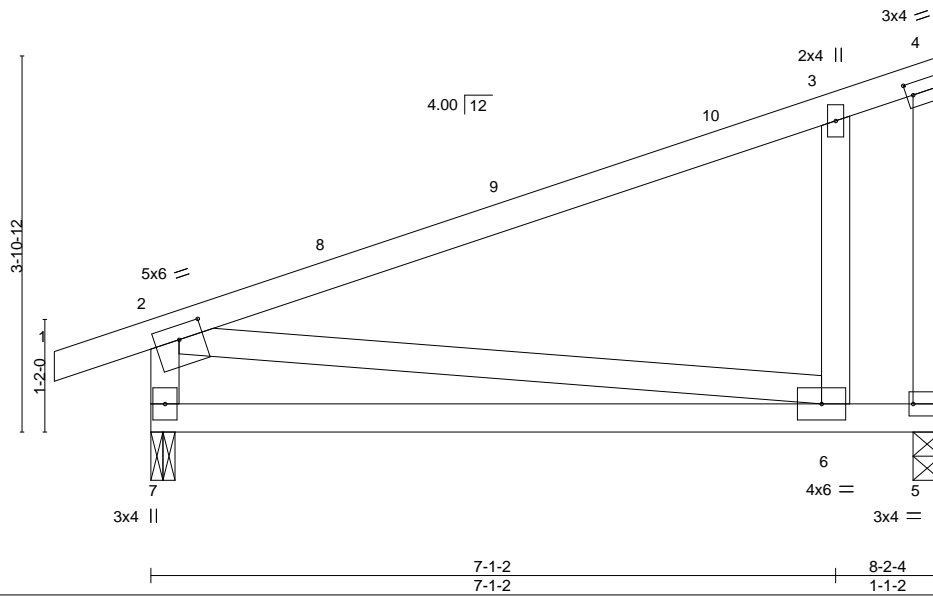


Plate Offsets (X, Y)-- [2:0-3-0,0-1-12], [4:0-0-13,0-1-8], [5:Edge,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.83	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.47	Vert(LL) -0.08 6-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.24	Vert(CT) -0.19 6-7 >488 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 6-7 >999 240	Weight: 47 lb	FT = 20%

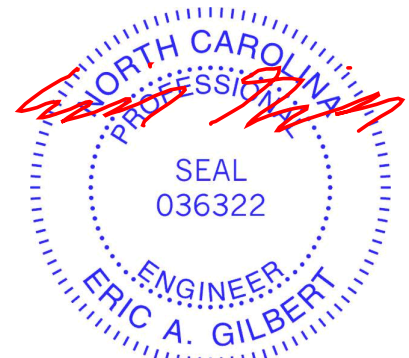
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

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

**REACTIONS.** (size) 7=0-3-0, 5=0-3-8  
 Max Horz 7=121(LC 9)  
 Max Uplift 7=-52(LC 8), 5=-35(LC 8)  
 Max Grav 7=390(LC 1), 5=311(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-7=-299/124  
 BOT CHORD 6-7=-239/358  
 WEBS 2-6=-262/188

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 8-0-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.



April 21, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



818 Soundside Road  
 Edenton, NC 27932

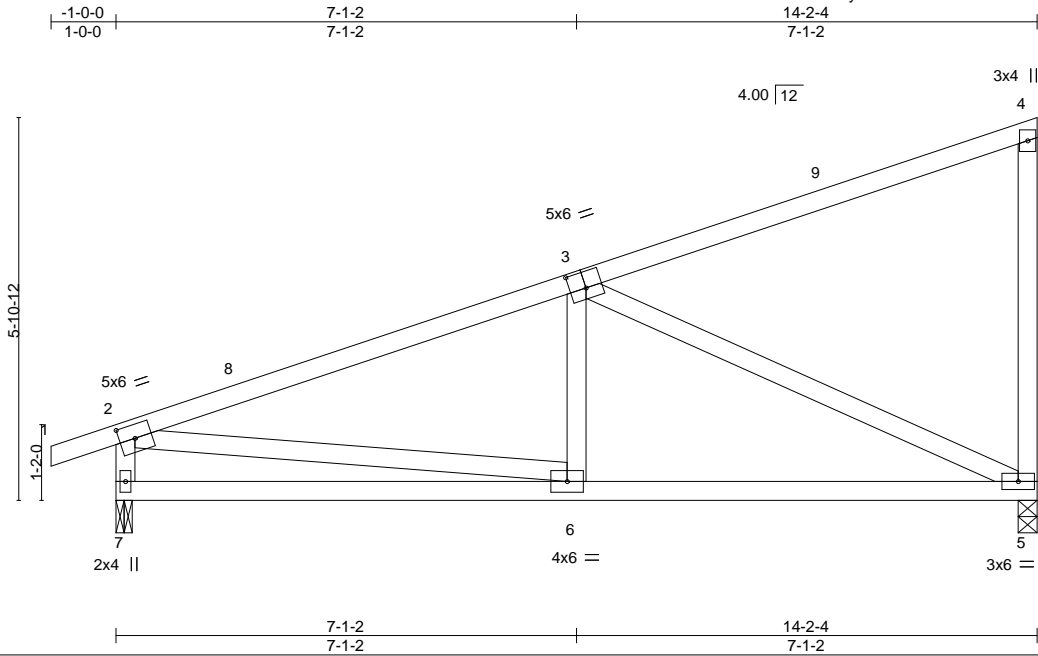
Job NC1_111-R	Truss P09	Truss Type MONO TRUSS	Qty 3	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917621
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:08 2023 Page 1

ID:JbnYVf1QbWGMVvS3eidP34zb6LG-PyoLxotExWbxRNQzTLZnY4dx7fqXv\_ozdq0uS?zOV0P



Scale = 1:35.5

Plate Offsets (X, Y)--	[2:0-2-14,0-2-8], [3:0-3-0,0-3-0], [4:0-0-0,0-0-0], [5:0-0-0,0-0-0]
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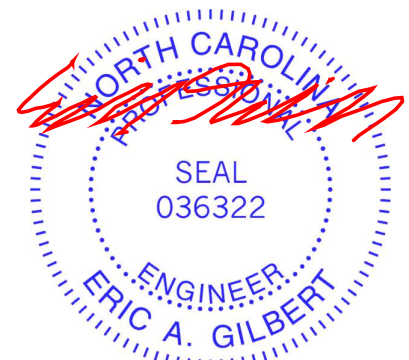
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.60	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.06 5-6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.84	Vert(CT) -0.12 5-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.01 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.02 5-6 >999 240	Weight: 79 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 7=0-3-0, 5=0-3-8  
 Max Horz 7=188(LC 9)  
 Max Uplift 7=-66(LC 8), 5=-63(LC 12)  
 Max Grav 7=627(LC 1), 5=553(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-7=-564/114, 2-3=-802/52  
 BOT CHORD 6-7=-241/320, 5-6=-115/698  
 WEBS 2-6=0/477, 3-6=0/268, 3-5=-752/113

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 14-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.



April 21, 2023

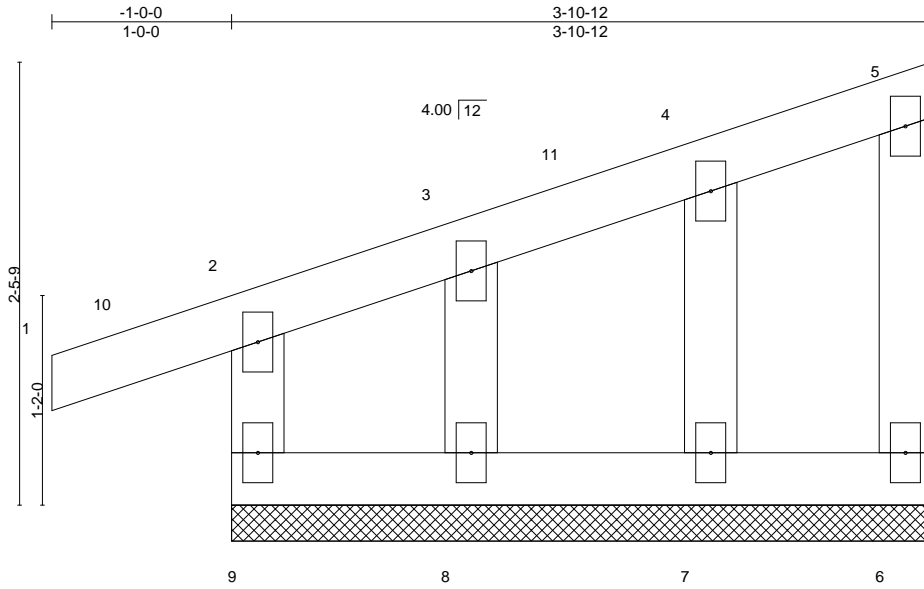
Job NC1_111-R	Truss P10G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	I57917622
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:10 2023 Page 1

ID:JbnYVf1QbWGMYS3eidP34zb6LG-LLw5MUvUT8rfhhZLamcFdViP5Se5N4?vQ8V?WtzOV0N



Scale = 1:12.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.12	Vert(LL) 0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(CT) -0.00	1	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT) -0.00	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R					Weight: 21 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

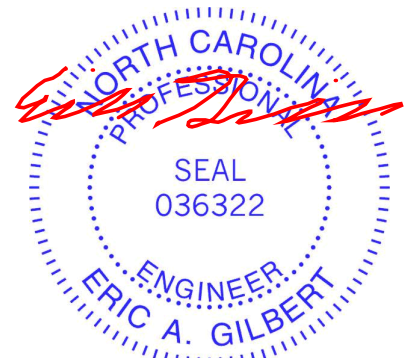
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** All bearings 3-10-12.  
 (lb) - Max Horz 9=73(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 9, 6, 8, 7  
 Max Grav All reactions 250 lb or less at joint(s) 9, 6, 8, 7

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 3-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) All plates are 2x4 MT20 unless otherwise indicated.
- 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 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6, 8, 7.



April 21, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



818 Soundside Road  
 Edenton, NC 27932



Job NC1_111-R	Truss PB01G	Truss Type GABLE	Qty 2	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917623
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:13 2023 Page 1

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4x6 =

Scale = 1:34.2

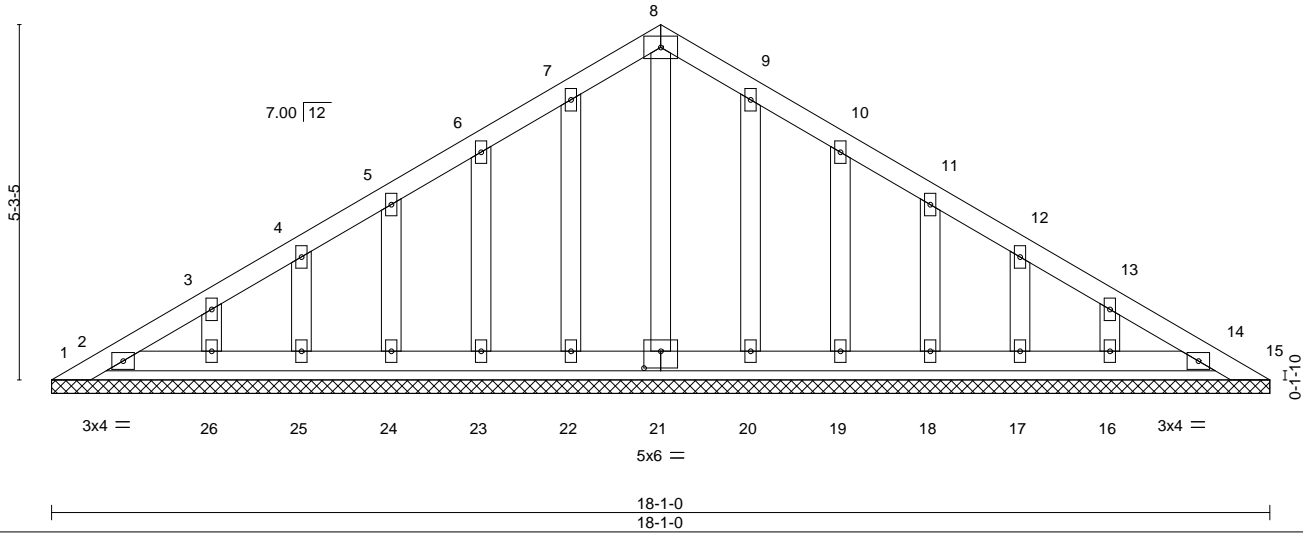


Plate Offsets (X,Y)--	[21:0-3-0,0-3-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.04	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.02	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr NO		WB 0.04	Horz(CT) 0.00	15	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 96 lb	FT = 20%

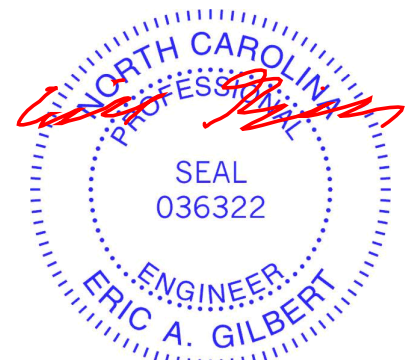
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 18-1-0.  
 (lb) - Max Horz 1=-101(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 15, 2, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16  
 Max Grav All reactions 250 lb or less at joint(s) 1, 15, 2, 21, 22, 23, 24, 25, 26, 20, 19, 18, 14, 17, 16

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-3-8 to 3-3-8, Exterior(2) 3-3-8 to 9-0-8, Corner(3) 9-0-8 to 12-0-8, Exterior(2) 12-0-8 to 17-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 2, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



April 21, 2023

Job NC1_111-R	Truss PB02	Truss Type GABLE	Qty 14	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917624
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:16 2023 Page 1

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4x6 =

Scale = 1:34.2

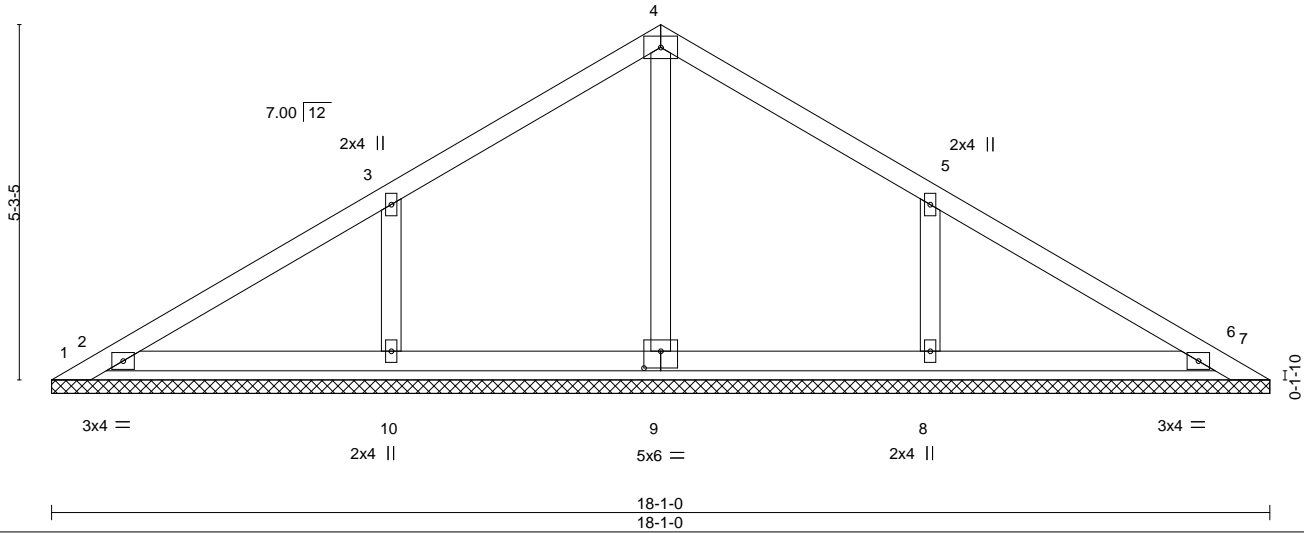


Plate Offsets (X,Y)--	[9:0-3-0,0-3-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.09	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 69 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3		

**REACTIONS.** All bearings 18-1-0.  
 (lb) - Max Horz 1=-101(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 8, 6 except 1=-183(LC 19), 7=-143(LC 20)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 2=368(LC 19), 9=256(LC 1), 10=366(LC 19), 8=365(LC 20), 6=357(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-10=-274/132, 5-8=-274/131

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-3-8 to 3-3-8, Exterior(2) 3-3-8 to 9-0-8, Corner(3) 9-0-8 to 12-0-8, Exterior(2) 12-0-8 to 17-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 8, 6 except (jt=lb) 1=183, 7=143.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



April 21, 2023

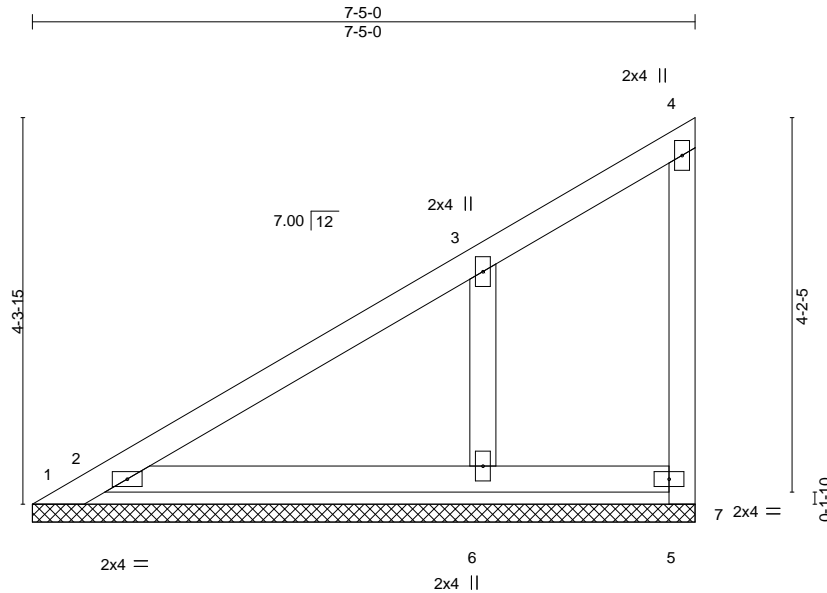
Job NC1_111-R	Truss PB03	Truss Type GABLE	Qty 5	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917625
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:18 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-6tP72D?VabsWewBu2SI7yB1kMhLRFig5GNRQoQzOV0F



Scale = 1:25.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.05	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 31 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.** All bearings 7-5-0.  
 (lb) - Max Horz 1=122(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 1=182(LC 19), 2=109(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=368(LC 19), 6=313(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-285/329

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-3-8 to 3-3-8, Exterior(2) 3-3-8 to 7-3-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 4-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Bearing at joint(s) 1, 2, 5, 7 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 100 lb uplift at joint(s) 5, 6 except (jt=lb) 1=182, 2=109.
  - 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



April 21, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

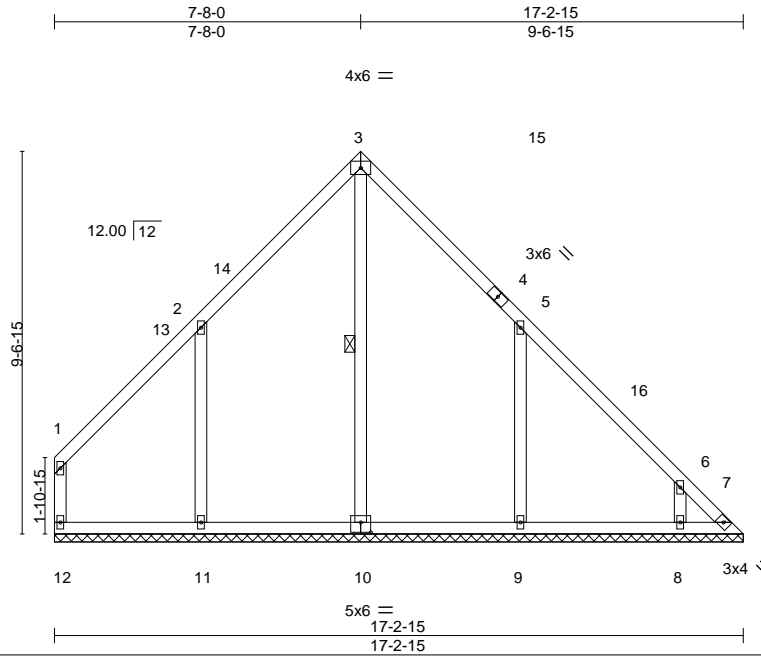
Job NC1_111-R	Truss V08	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917626
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:19 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-a3zVFZ08Lv\_NG3I4c9GMUOatz5fB\_7JEU1B\_LszOV0E



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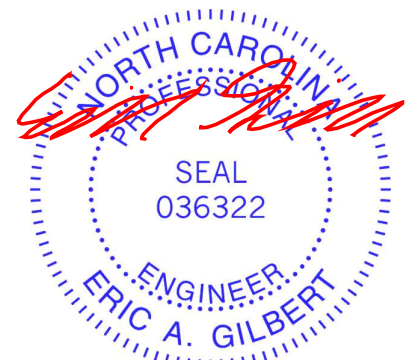
Plate Offsets (X,Y)--	[10:0-3-0,0-3-0]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.37	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	n/a	-	n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	7	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S				
							<b>PLATES</b> MT20
							<b>GRIP</b> 244/190
							Weight: 94 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 3-10
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 17-2-15.  
 (lb) - Max Horz 12=-200(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 12, 10 except 11=-178(LC 12), 9=-169(LC 13), 8=-121(LC 13), 7=-164(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 12, 7 except 10=497(LC 21), 11=436(LC 19), 9=437(LC 20), 8=270(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-265/239, 3-5=-265/268, 6-7=-262/240  
 WEBS 3-10=-292/172, 2-11=-294/220, 5-9=-296/219

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-8-0, Exterior(2) 7-8-0 to 10-8-0, Interior(1) 10-8-0 to 16-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 12, 10 except (jt=lb) 11=178, 9=169, 8=121, 7=164.



April 21, 2023

Job NC1_111-R	Truss V09	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917627
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:20 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-2GXtTv0m6C6EtDKGAtnb1c61?U?TjY7OjhwXtlzOV0D



4x6 =

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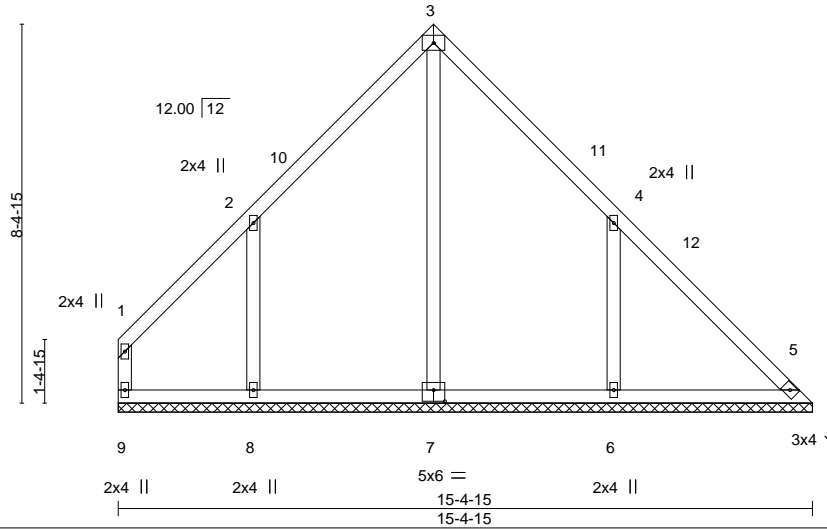


Plate Offsets (X,Y)-- [7:0-3-0,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.31	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 80 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 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.** All bearings 15-4-15.  
 (lb) - Max Horz 9=-171(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 9, 5 except 8=-174(LC 12), 6=-185(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 9, 5 except 7=464(LC 21), 8=415(LC 19), 6=470(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-7=-250/104, 2-8=-278/208, 4-6=-319/230

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-0-0, Interior(1) 3-0-0 to 7-0-0, Exterior(2) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 15-0-12 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=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 5 except (jt=lb) 8=174, 6=185.



April 21, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



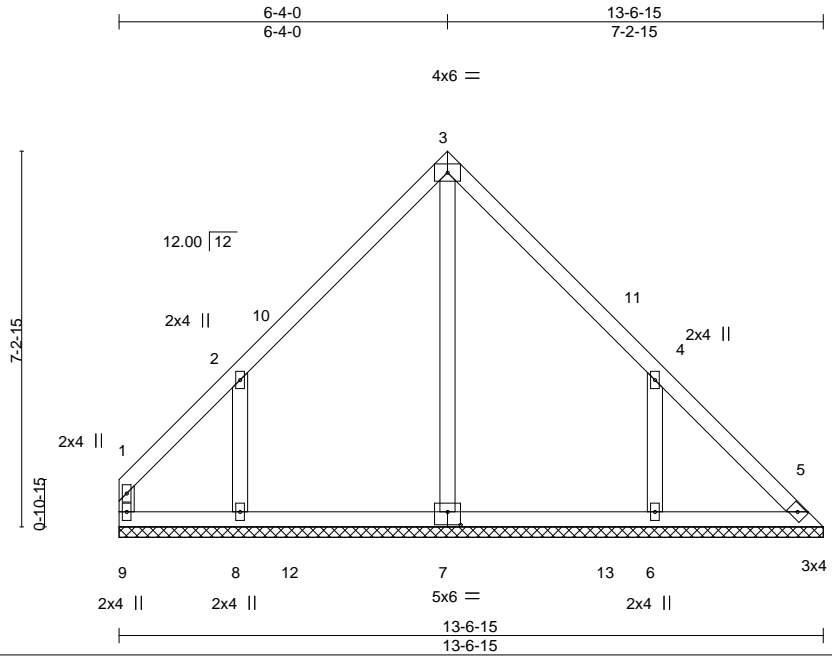
Job NC1_111-R	Truss V10	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917628
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:22 2023 Page 1

ID:JbnYVf1QbWGMYS3eidP34zb6LG-?eeub20eqMy7XUfHlq361CPBlg7BUfgB?PexBzOV0B



Scale = 1:44.4

Plate Offsets (X,Y)--	[7:0-3-0,0-3-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.30	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.18	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 67 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 13-6-15.  
 (lb) - Max Horz 9=143(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 9, 5 except 8=174(LC 12), 6=160(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 9, 5 except 7=410(LC 21), 8=370(LC 19), 6=384(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-265/201, 4-6=-278/201

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-4-0, Exterior(2) 6-4-0 to 9-4-0, Interior(1) 9-4-0 to 13-2-12 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=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 5 except (jt=lb) 8=174, 6=160.



April 21, 2023



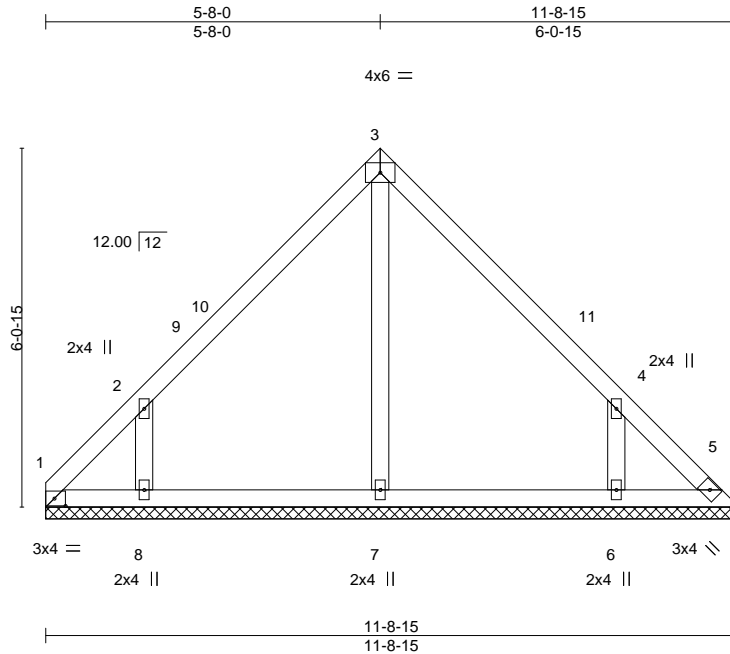
Job NC1_111-R	Truss V11	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	I57917629
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:23 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-TrC05x3eP7Uokh3rr?LIkaxi1pwyFqPf9BUdzOV0A



Scale = 1:39.0

Plate Offsets (X,Y)--	[1:0-2-4,0-1-8]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 55 lb	FT = 20%

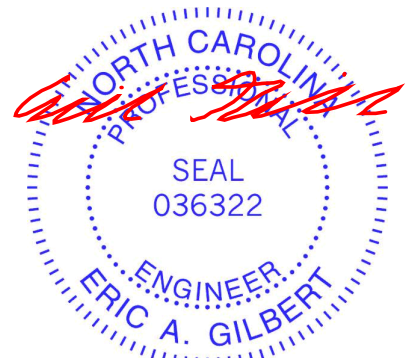
**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3  
OTHERS 2x4 SP No.3

**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 11-8-15.  
(lb) - Max Horz 1=113(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=151(LC 12), 6=148(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=318(LC 19), 6=317(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-261/194, 4-6=-260/190

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-8-0, Exterior(2) 5-8-0 to 8-8-0, Interior(1) 8-8-0 to 11-4-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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=151, 6=148.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.



April 21, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



818 Soundside Road  
Edenton, NC 27932

Job NC1_111-R	Truss V12	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917630
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:25 2023 Page 1

ID:JbnYVf1QbWGMYS3eidP34zb6LG-PDKmWc4uwlkW\_\_DEyQNmKfqlVkjOs77tzeIYWzOV08



3x6 =

Scale = 1:32.8

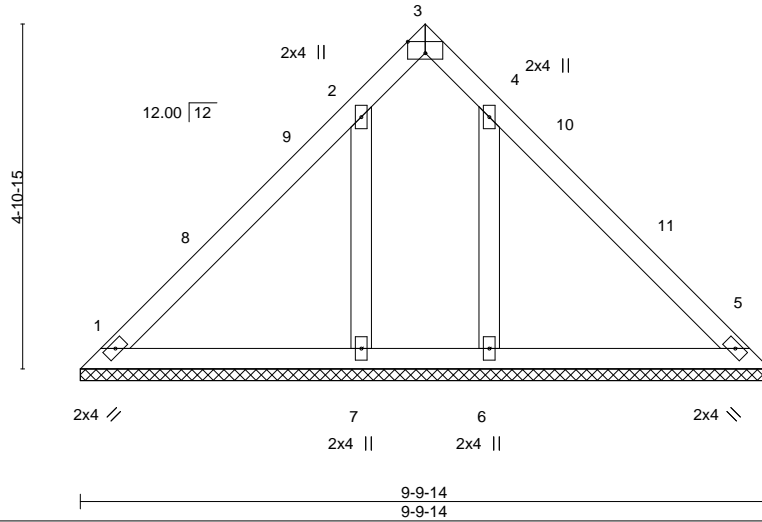


Plate Offsets (X,Y)--	[3:0-3-0,Edge]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S				
							<b>PLATES</b> MT20
							<b>GRIP</b> 244/190
							Weight: 44 lb FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3  
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 6-0-0 oc bracing.

**REACTIONS.** All bearings 9-9-14.  
(lb) - Max Horz 1=90(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) except 6=-134(LC 13), 7=-138(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=316(LC 20), 7=321(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-7=-250/163

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 4-10-15, Exterior(2) 4-10-15 to 7-10-15, Interior(1) 7-10-15 to 9-5-10 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=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 6 and 138 lb uplift at joint 7.



April 21, 2023

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

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

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



818 Soundside Road  
Edenton, NC 27932

Job NC1_111-R	Truss V13	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917631
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

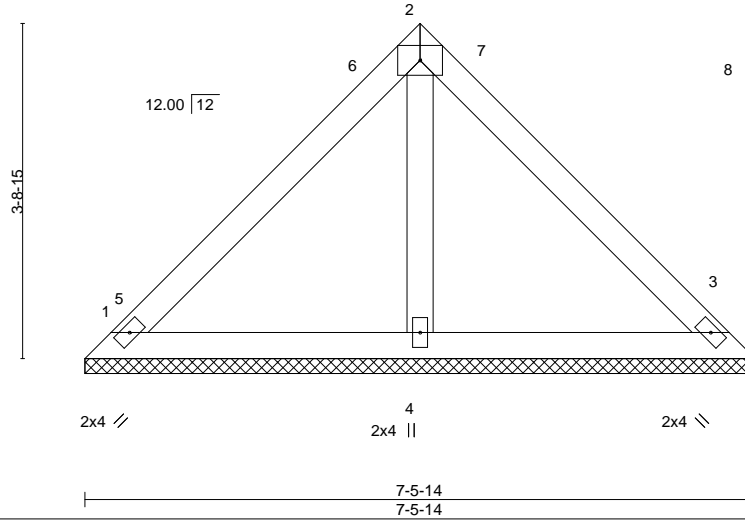
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:26 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-tQu8jy5Xh2sNb8oQW7u?HtM5sv3f7KqG5dNr4yzOV07



4x6 =

Scale = 1:25.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 30 lb	FT = 20%

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

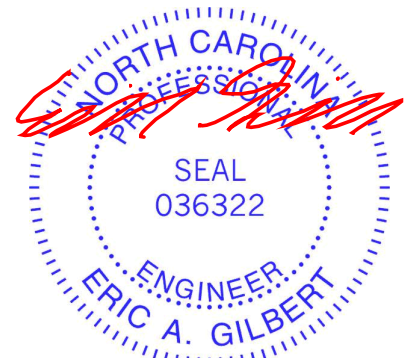
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=7-5-14, 3=7-5-14, 4=7-5-14  
 Max Horz 1=-67(LC 10)  
 Max Uplift 1=-15(LC 13), 3=-15(LC 13)  
 Max Grav 1=151(LC 1), 3=151(LC 1), 4=242(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 3-8-15, Exterior(2) 3-8-15 to 6-8-15, Interior(1) 6-8-15 to 7-1-10 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=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1 and 15 lb uplift at joint 3.



April 21, 2023

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

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



818 Soundside Road  
 Edenton, NC 27932

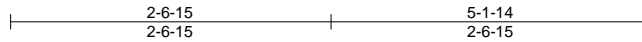
Job NC1_111-R	Truss V14	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 157917632
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

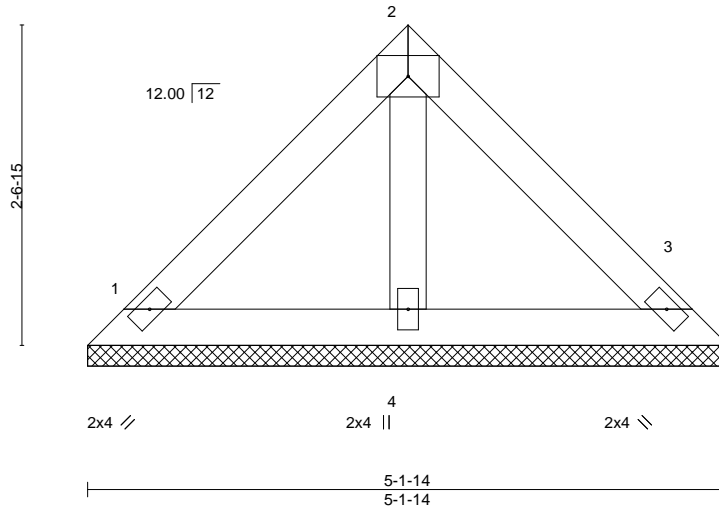
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:27 2023 Page 1

ID:JbnYVf1QbWGMYvS3eidP34zb6LG-LcSXl69SM\_EDINc4rPEp4vIPJQfsmOQKH7PdOzOV06



4x6 =

Scale = 1:18.5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.15	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 20 lb	FT = 20%
	Code IRC2015/TPI2014							

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-1-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-1-14, 3=5-1-14, 4=5-1-14  
 Max Horz 1=-44(LC 10)  
 Max Uplift 1=-15(LC 13), 3=-15(LC 13)  
 Max Grav 1=106(LC 1), 3=106(LC 1), 4=143(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1 and 15 lb uplift at joint 3.



April 21, 2023

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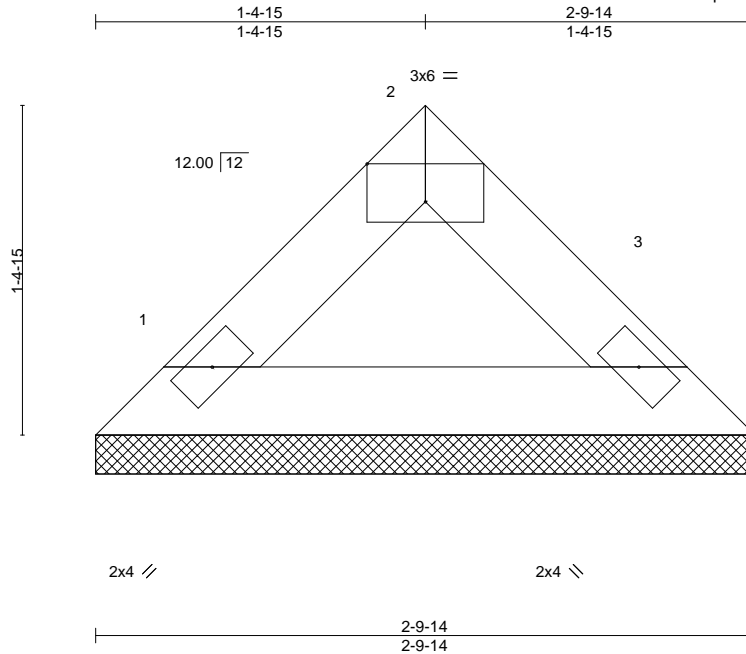
Job NC1_111-R	Truss V15	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 157917633
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:28 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-po?v8e7nDg65rSypeYwTMISV0jmvbDvZZxsy9rzOV05



Scale = 1:9.9

Plate Offsets (X,Y)--	[2:0-3-0,Edge]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 9 lb
							FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3

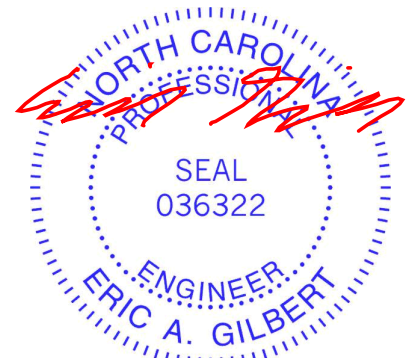
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-9-14, 3=2-9-14  
Max Horz 1=-21(LC 8)  
Max Grav 1=85(LC 1), 3=85(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



April 21, 2023

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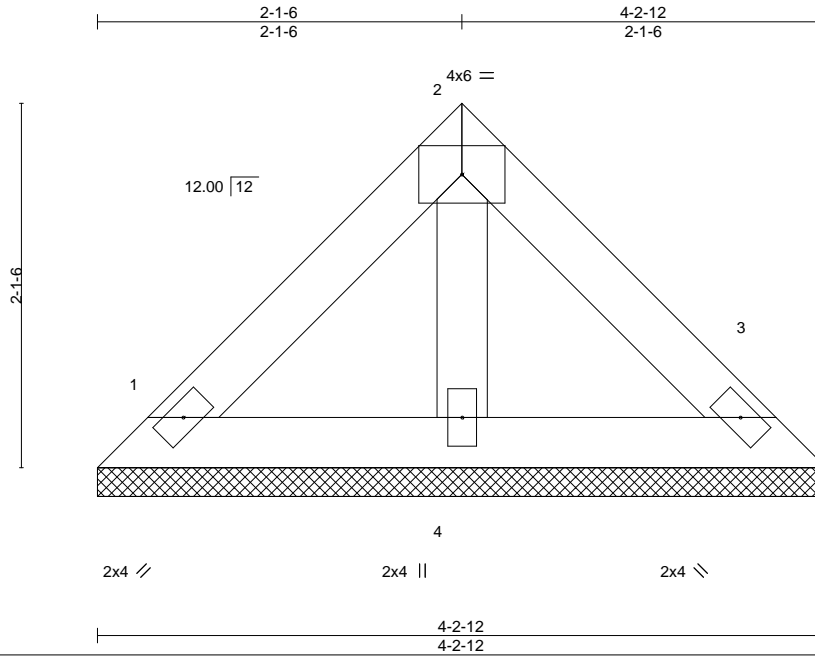
Job NC1_111-R	Truss V16	Truss Type VALLEY	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 I57917634
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:30 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-mB7fZK81HMP4m5BlzzxRjXqaWTS37Bs0FL3EjzOV03



Scale = 1:13.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 16 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-2-12 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-2-13, 3=4-2-13, 4=4-2-13  
 Max Horz 1=-35(LC 10)  
 Max Uplift 1=-12(LC 13), 3=-12(LC 13)  
 Max Grav 1=84(LC 1), 3=84(LC 1), 4=114(LC 1)

**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=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 12 lb uplift at joint 3.



April 21, 2023

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

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818 Soundside Road  
 Edenton, NC 27932

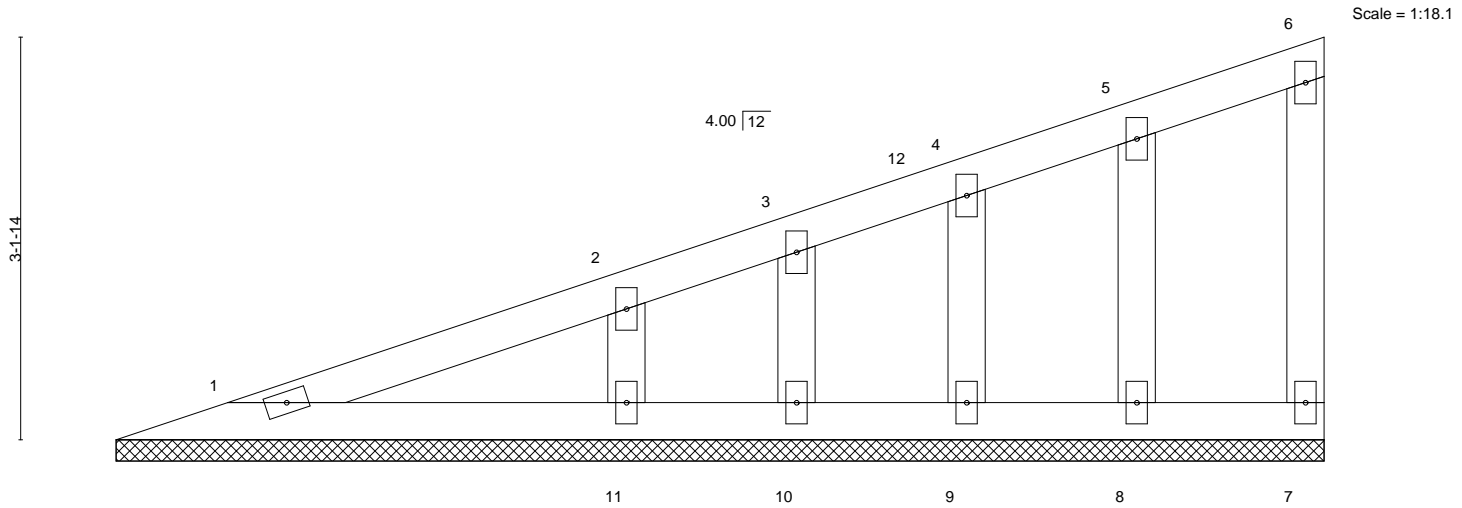


Job NC1_111-R	Truss V17G	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	I57917635
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:31 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-ENh1mg9fWbVgivgNjUA\_w4?\_woroay?Fv5cm9zOV02  
9-5-10  
9-5-10



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 7 n/a n/a	Weight: 40 lb	FT = 20%
	Code IRC2015/TPI2014				

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 9-5-10.  
 (lb) - Max Horz 1=94(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 7, 11, 10, 9, 8  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 9, 8 except 11=256(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-10-13 to 4-0-0, Exterior(2) 4-0-0 to 9-3-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 7, 11, 10, 9, 8.



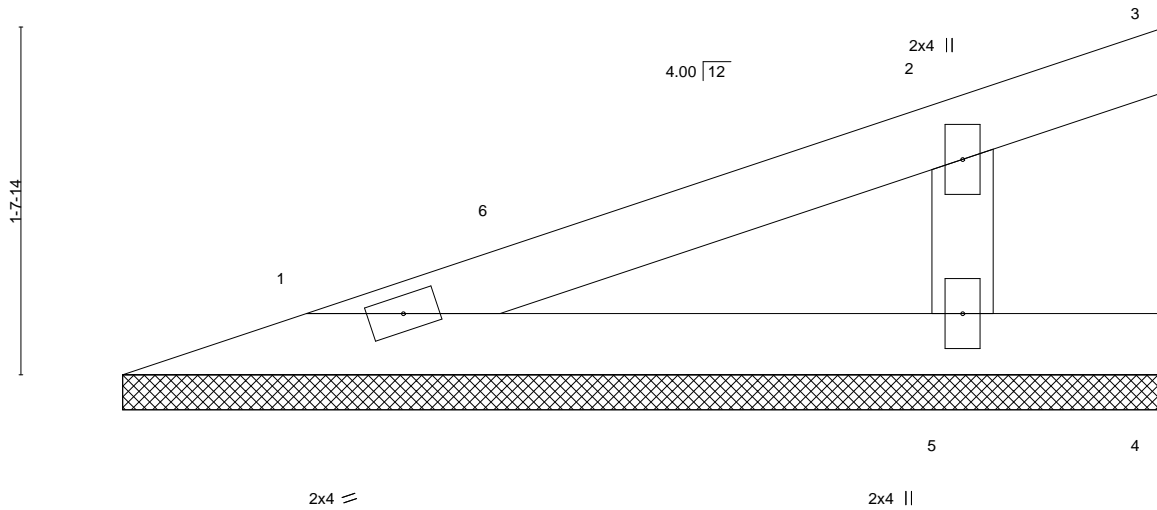
Job NC1_111-R	Truss V18	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	I57917636
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:32 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-iaFQ\_0AHudXJ3FatO?PW8c8EK8AX1\_9UZqAlczOV01  
4-11-10  
4-11-10



Scale = 1:11.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 15 lb	FT = 20%

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

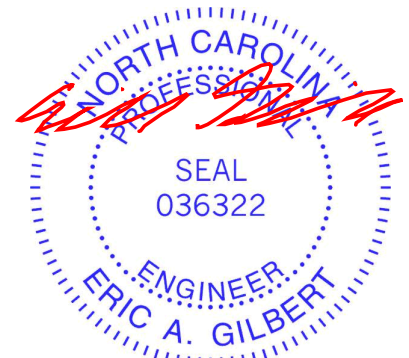
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-11-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-11-10, 3=4-11-10, 4=4-11-10, 5=4-11-10  
Max Horz 1=42(LC 8)  
Max Uplift 3=28(LC 1), 4=20(LC 3), 5=33(LC 8)  
Max Grav 1=100(LC 1), 3=10(LC 8), 5=263(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-10-13 to 4-0-0, Exterior(2) 4-0-0 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=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Bearing at joint(s) 3 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 100 lb uplift at joint(s) 3, 4, 5.



April 21, 2023

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

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



818 Soundside Road  
Edenton, NC 27932

Job NC1_111-R	Truss V19	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917637
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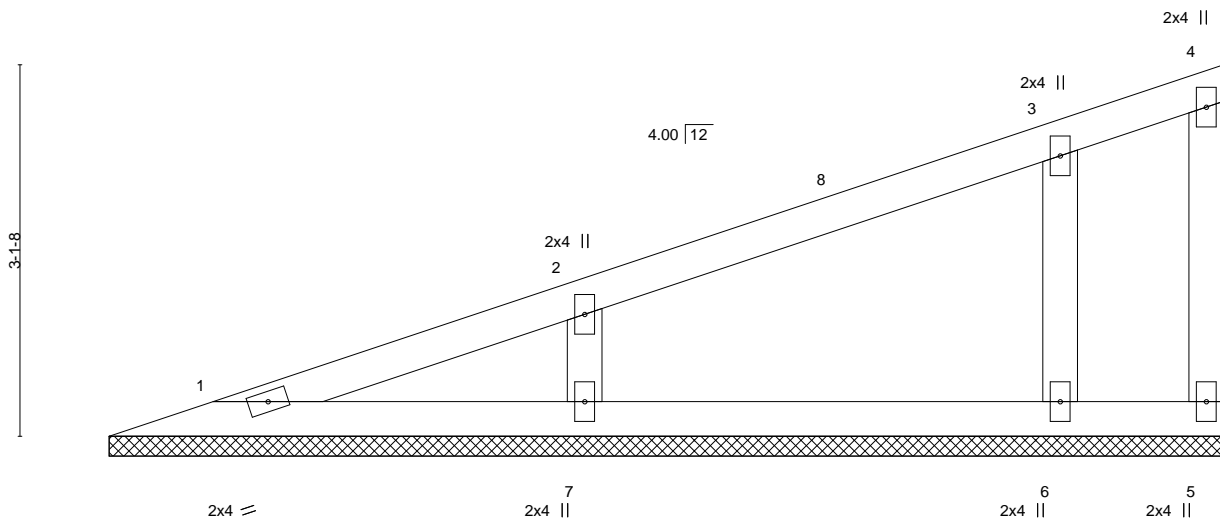
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:33 2023 Page 1

ID:JbnYVf1QbWGMYS3eidP34zb6LG-AmpoBMBw2CIOxDqmQ5We3L9lekSbGUKiDajqz2zOV00

9-4-8  
9-4-8

Scale = 1:19.4



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 35 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

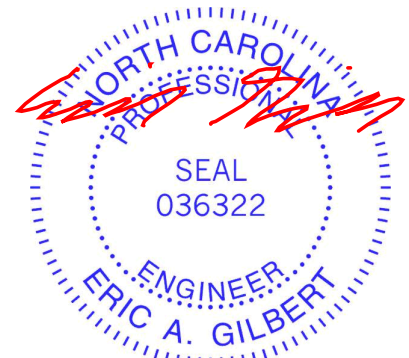
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** All bearings 9-4-8.  
 (lb) - Max Horz 1=93(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 5, 7, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=326(LC 1), 6=274(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-10-13 to 4-0-0, Exterior(2) 4-0-0 to 9-2-12 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=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 7, 6.



April 21, 2023

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

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



818 Soundside Road  
 Edenton, NC 27932

Job NC1_111-R	Truss V20	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	I57917638
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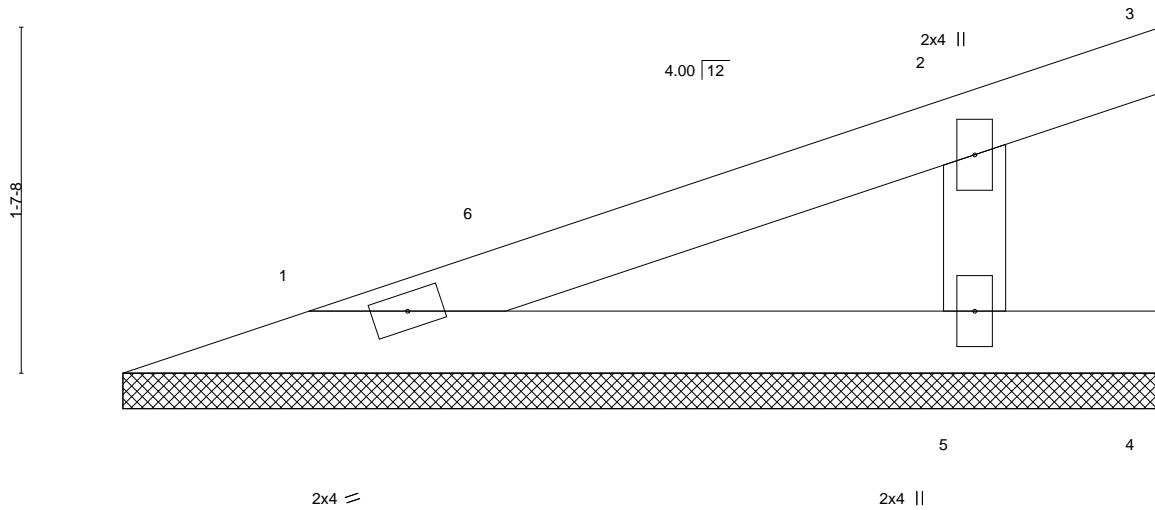
Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:34 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-eyNAPhBYpWtFZNPY\_p1tbZITj8oc?xSRxtJGNUzOV0?  
4-10-8  
4-10-8

Scale = 1:10.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 15 lb	FT = 20%

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

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

**REACTIONS.** (size) 1=4-10-8, 3=4-10-8, 4=4-10-8, 5=4-10-8  
Max Horz 1=41(LC 8)  
Max Uplift 3=-38(LC 1), 4=-26(LC 3), 5=-34(LC 8)  
Max Grav 1=100(LC 1), 3=14(LC 8), 5=269(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-10-13 to 4-0-0, Exterior(2) 4-0-0 to 4-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Bearing at joint(s) 3 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 100 lb uplift at joint(s) 3, 4, 5.



April 21, 2023

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

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



818 Soundside Road  
Edenton, NC 27932

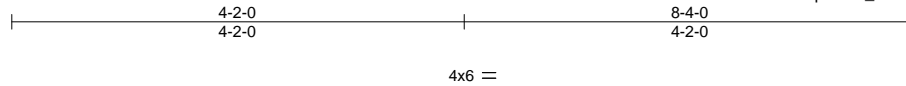
Job NC1_111-R	Truss V21	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 157917639
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Builders FirstSource (Apex, NC),

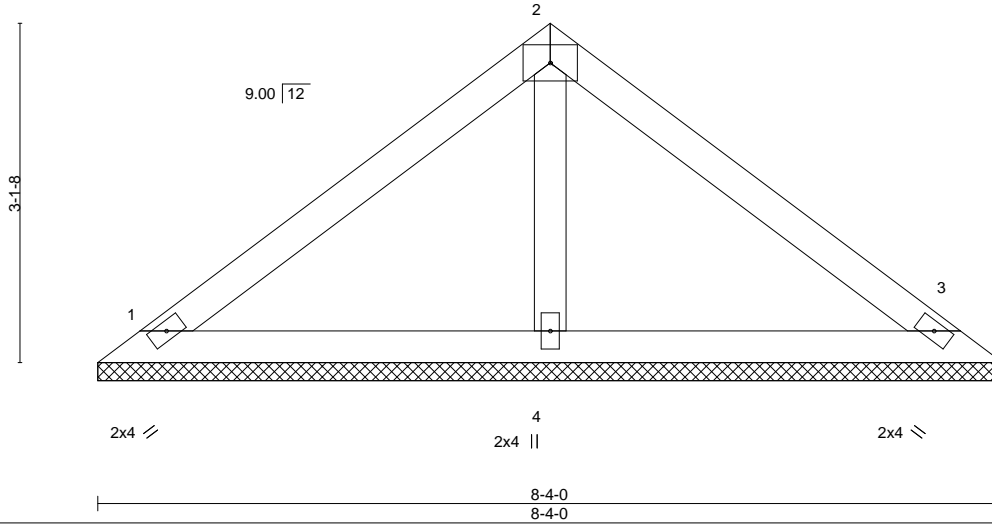
Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:35 2023 Page 1

ID:JbnYVf1QbWGMYS3eidP34zb6LG-68xYc1CAap?5BX\_9YWY68mEchX79kOzbAX3qvxzOV0\_



Scale = 1:21.2



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.32	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.24	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 30 lb	FT = 20%
	Code IRC2015/TPI2014							

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

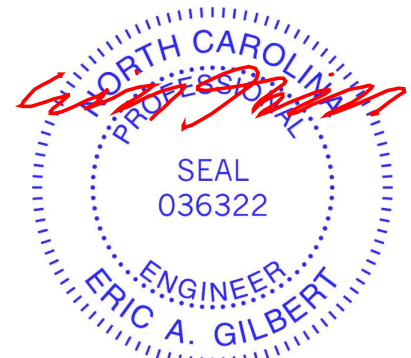
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=8-4-0, 3=8-4-0, 4=8-4-0  
 Max Horz 1=55(LC 11)  
 Max Uplift 1=-12(LC 12), 3=-20(LC 13)  
 Max Grav 1=151(LC 1), 3=151(LC 1), 4=295(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-5-4 to 3-5-4, Exterior(2) 3-5-4 to 4-2-0, Corner(3) 4-2-0 to 7-2-0, Exterior(2) 7-2-0 to 7-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



April 21, 2023

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818 Soundside Road  
 Edenton, NC 27932

Job NC1_111-R	Truss V22	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 157917640
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

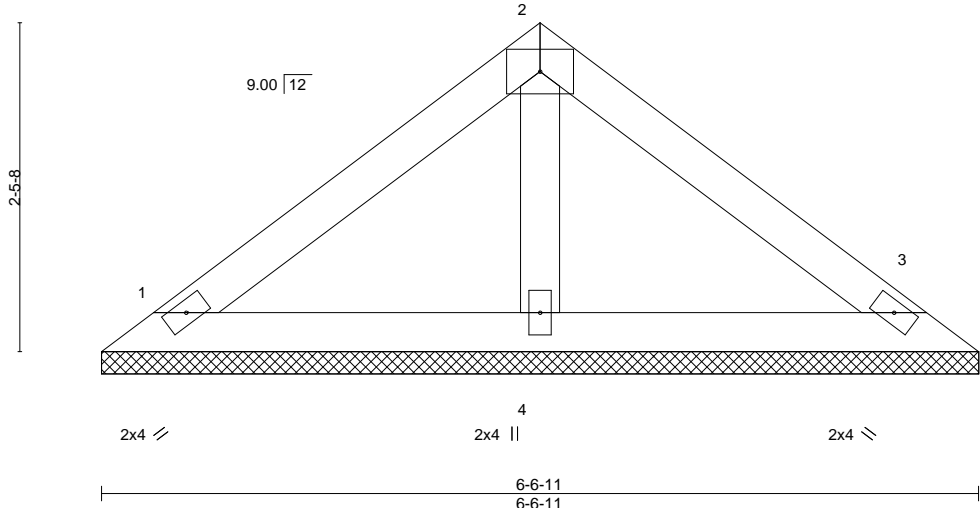
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:37 2023 Page 1

ID:JbnYVf1QbWGMVvS3eidP34zb6LG-2X2J1jEQ6RFpQq8XfxbDBJ\_JLqACliudrYxypzOV?y



4x6 =

Scale = 1:17.2



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.14	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 23 lb	FT = 20%
	Code IRC2015/TPI2014							

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

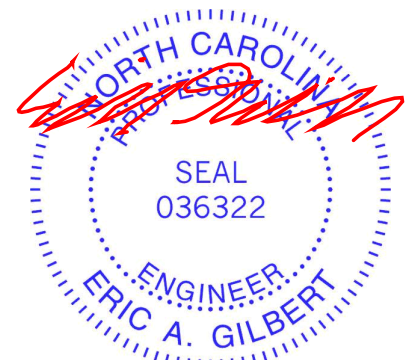
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=6-6-11, 3=6-6-11, 4=6-6-11  
 Max Horz 1=42(LC 11)  
 Max Uplift 1=-15(LC 12), 3=-20(LC 13)  
 Max Grav 1=125(LC 1), 3=125(LC 1), 4=204(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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, 3.



April 21, 2023



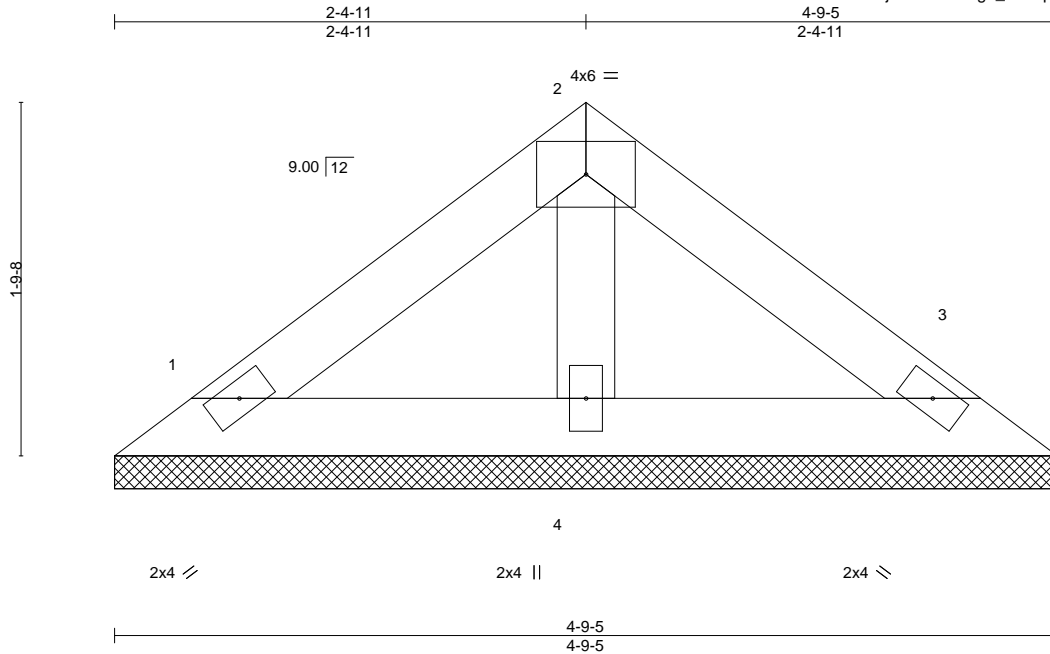
Job NC1_111-R	Truss V23	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 Job Reference (optional)	157917641
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:38 2023 Page 1

ID:JbnYVf1QbWGMvYvS3eidP34zb6LG-XjchE3E2skNg2\_ikDf6pmPsBEIBXxl61sUHUVGzOV?x



Scale = 1:11.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 16 lb	FT = 20%
	Code IRC2015/TPI2014							

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-9-5 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-9-5, 3=4-9-5, 4=4-9-5  
 Max Horz 1=29(LC 11)  
 Max Uplift 1=-10(LC 12), 3=-14(LC 13)  
 Max Grav 1=86(LC 1), 3=86(LC 1), 4=140(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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, 3.



April 21, 2023

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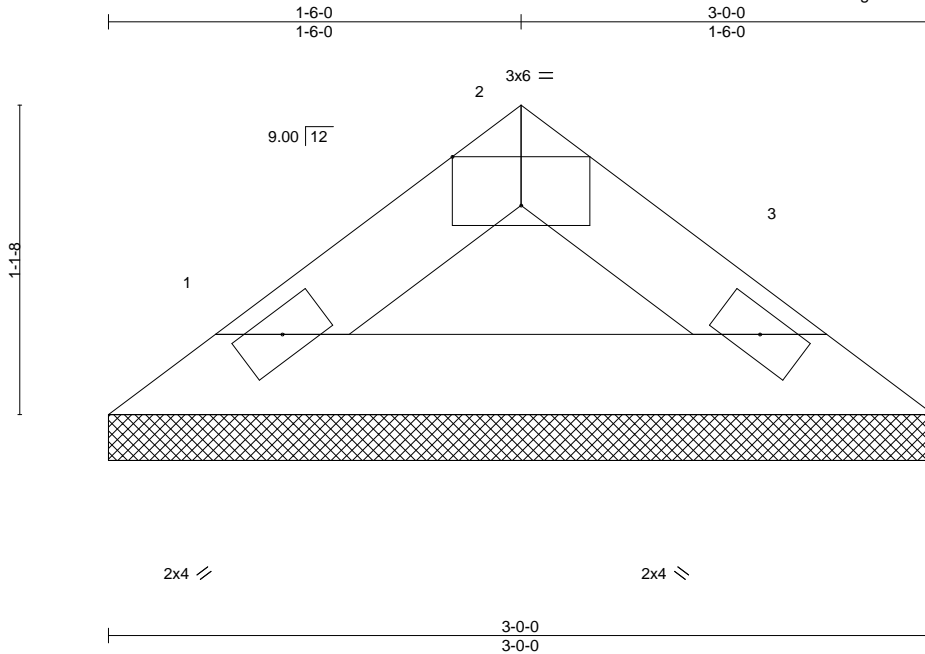
Job NC1_111-R	Truss V24	Truss Type GABLE	Qty 1	Ply 1	Caruso-Tillery1:OYLNC1 111 157917642
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Apr 21 12:29:39 2023 Page 1

ID:JbnYVf1QbWGMvS3eidP34zb6LG-?wA3SPFgd2VXf8HwnMd2lcPNG9XRgCeB58111izOV?w



Scale = 1:8.4

Plate Offsets (X,Y)--	[2:0-3-0,Edge]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a	-	n/a	999
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					
								<b>PLATES</b>
								MT20
								<b>GRIP</b>
								244/190
								Weight: 9 lb
								FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3

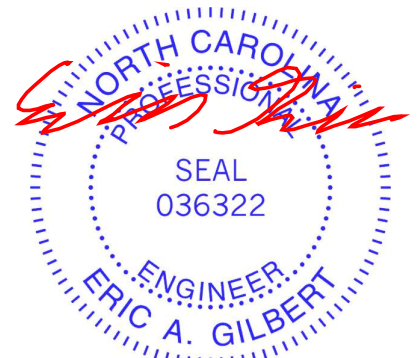
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-0-0, 3=3-0-0  
Max Horz 1=16(LC 9)  
Max Uplift 1=2(LC 12), 3=2(LC 13)  
Max Grav 1=85(LC 1), 3=85(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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, 3.



April 21, 2023

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

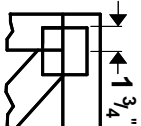
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



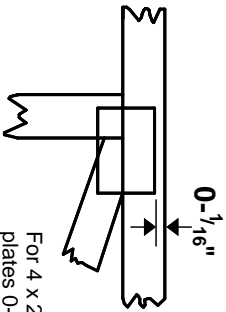
818 Soundside Road  
Edenton, NC 27932

# 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



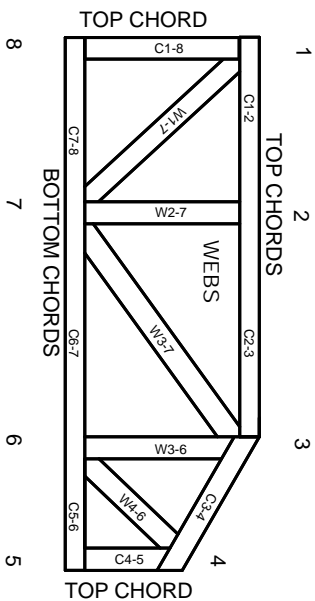
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.