

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: MASTER  
A&G/Hampton/Lot3/NewHorizons/Fayettevil

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 (Albermarle,NC).

Pages or sheets covered by this seal: E14172743 thru E14172759

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844



March 12,2020

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 MASTER	Truss A01	Truss Type COMMON SUPPORTED GAB	Qty 2	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil Job Reference (optional)	E14172743
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:05:51 2020 Page 1

ID:ogxZoq3yXO8tXxp2GAN\_0Xyz7s4-ZDM0bwVPHUm1j8?G4ehaRBNMeA9iia1?3J6aNzbwkw

0-10-8 18-0-0 36-0-0 36-10-8  
0-10-8 18-0-0 18-0-0 0-10-8

Scale = 1:61.3

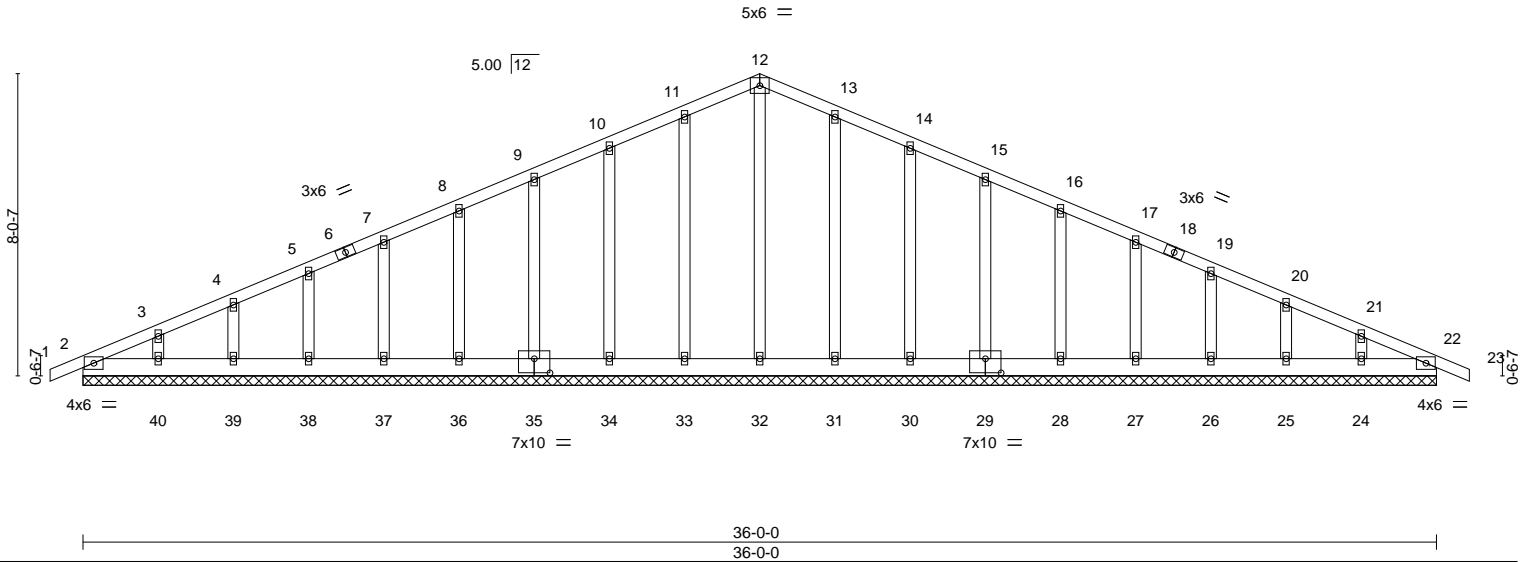


Plate Offsets (X,Y)--	[29:0-5-0,0-4-8], [35:0-5-0,0-4-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) -0.00 22 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 22 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT) 0.01 22 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 241 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 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.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 36-0-0.  
(lb) - Max Horz 2=-177(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25, 40, 24, 22  
Max Grav All reactions 250 lb or less at joint(s) 2, 32, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25, 40, 24, 22

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 11-12=-110/288, 12-13=-110/288

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25, 40, 24, 22.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



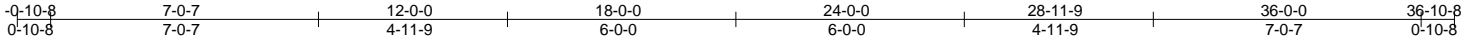
818 Soundside Road  
Edenton, NC 27932

Job MASTER	Truss A02	Truss Type COMMON	Qty 8	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil	E14172744
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:05:53 2020 Page 1

ID:ogxZoq3yXO8tXxp2GAN\_0Xyz7s4-VcUm0cWfp50lyR8fB3k2WcTuNShYASpKTNoDfGzbwwi



Scale = 1:60.5

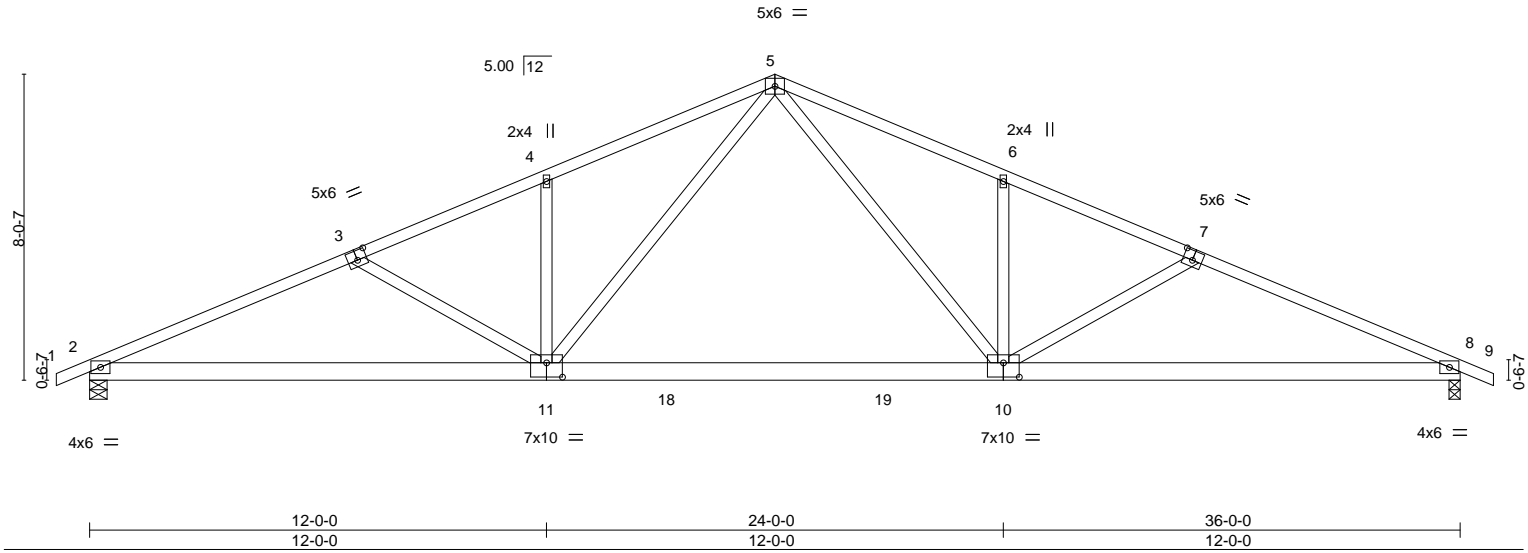


Plate Offsets (X,Y)-- [3:0-3-0,0-3-0], [7:0-3-0,0-3-0], [10:0-5-0,0-4-8], [11:0-5-0,0-4-8]

<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 0.49	Vert(LL)	-0.34	10-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.56	10-11	>769		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.08	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.18	10-11	>999		
								Weight: 204 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-5-8, 8=0-3-8  
Max Horz 2=-177(LC 13)  
Max Uplift 2=-416(LC 12), 8=-416(LC 13)  
Max Grav 2=1493(LC 1), 8=1493(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2930/1294, 3-4=-2552/1114, 4-5=-2561/1259, 5-6=-2561/1259, 6-7=-2552/1114, 7-8=-2930/1293  
BOT CHORD 2-11=-1063/2635, 10-11=-503/1692, 8-10=-1067/2635  
WEBS 5-10=-435/1011, 6-10=-334/307, 7-10=-397/345, 5-11=-435/1011, 4-11=-334/307, 3-11=-397/345

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=416, 8=416.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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Job MASTER	Truss A02A	Truss Type COMMON	Qty 6	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil	E14172745
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:05:54 2020 Page 1

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0-10-8 0-10-8	7-0-7 7-0-7	12-0-0 4-11-9	18-0-0 6-0-0	24-0-0 6-0-0	28-11-9 4-11-9	36-0-0 7-0-7	36-10-8 0-10-8
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Scale = 1:60.5

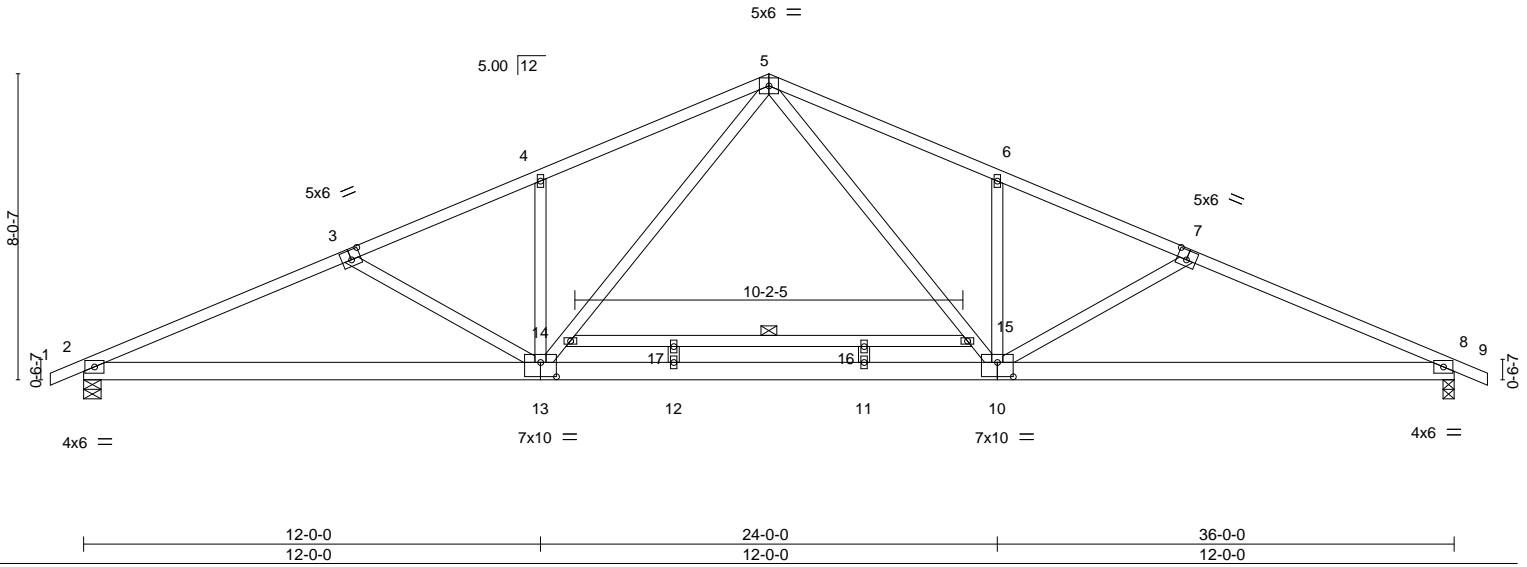


Plate Offsets (X,Y)--	[3:0-3-0,0-3-0], [7:0-3-0,0-3-0], [10:0-5-0,0-4-8], [13:0-5-0,0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-3-0	TC 0.91	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.74	Vert(LL) -0.18 11-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.63	Vert(CT) -0.56 11-12 >774 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.08 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.18 12 >999 240	Weight: 221 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1 \*Except\*  
 1-3,7-9: 2x4 SP No.2  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3 \*Except\*  
 14-15: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-3-11 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 7-9-4 oc bracing.  
 WEBS 1 Row at midpt 14-15

**REACTIONS.** (size) 2=0-5-8, 8=0-3-8  
 Max Horz 2=-199(LC 13)  
 Max Uplift 2=-368(LC 12), 8=-368(LC 13)  
 Max Grav 2=1779(LC 1), 8=1779(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3564/1187, 3-4=-3147/978, 4-5=-3163/1145, 5-6=-3163/1145, 6-7=-3147/978,  
 7-8=-3564/1187  
 BOT CHORD 2-13=-952/3209, 12-13=-379/2091, 11-12=-379/2091, 10-11=-379/2091, 8-10=-956/3209  
 WEBS 5-15=-367/1281, 10-15=-385/1252, 6-10=-388/353, 7-10=-430/400, 13-14=-385/1252,  
 5-14=-367/1281, 4-13=-388/353, 3-13=-430/400

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 200.0lb AC unit load placed on the bottom chord, 18-0-0 from left end, supported at two points, 5-0-0 apart.
  - 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.
  - \* 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) 2=368, 8=368.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-743 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

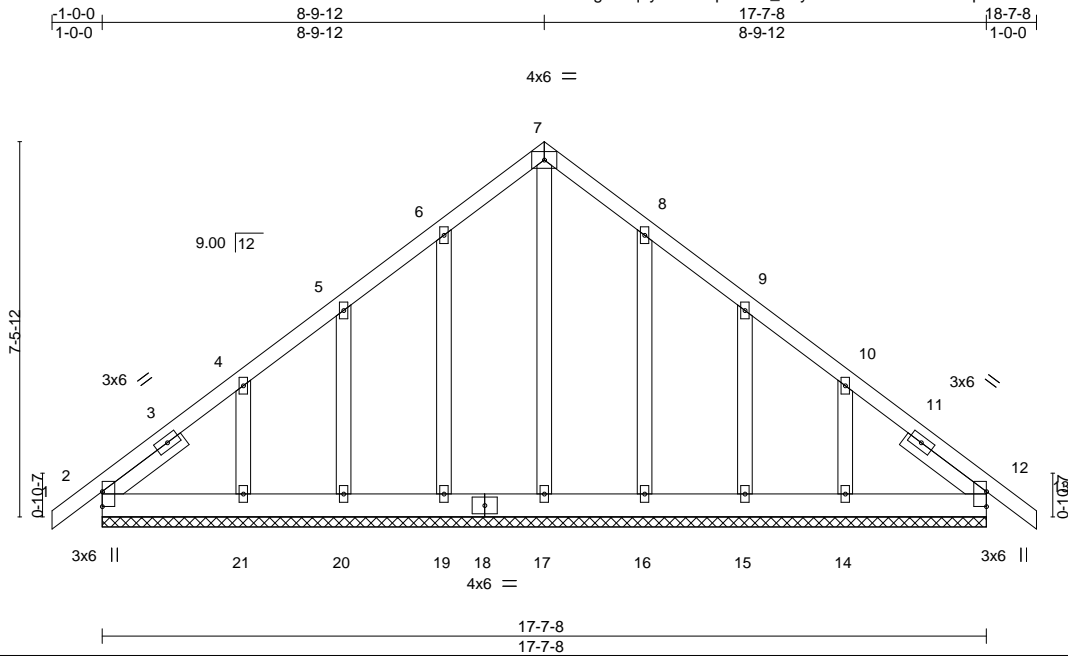


818 Soundside Road  
 Edenton, NC 27932

Job MASTER	Truss B01	Truss Type Common Supported Gable	Qty 1	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil Job Reference (optional)	E14172746
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Builders FirstSource (Albemarle), Albemarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:05:56 2020 Page 1  
ID:ogxZoq3yXO8tXp2GAN\_0Xyz7s4-wBAvedZY60OJpvtDsBH8E5VXfurNy6n9L1tGzbwfwf



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
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 0.06	Vert(LL) -0.00 12 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.17	Vert(CT) 0.00 12 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 12 n/a n/a		
	Code IRC2015/TPI2014			Weight: 128 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
OTHERS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

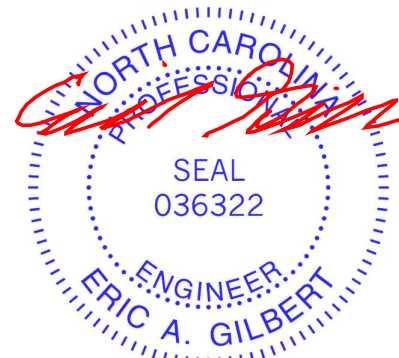
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 17-7-8.  
(lb) - Max Horz 2=-246(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 15, 12 except 19=-122(LC 12), 21=-202(LC 12), 16=-120(LC 13), 14=-195(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 17, 19, 20, 16, 15, 12 except 21=265(LC 19), 14=256(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=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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, 20, 15, 12 except (jt=lb) 19=122, 21=202, 16=120, 14=195.



March 12, 2020

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818 Soundside Road  
Edenton, NC 27932

Job MASTER	Truss B02	Truss Type Common Girder	Qty 1	Ply 2	A&G/Hampton/Lot3/NewHorizons/Fayettevil E14172747
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:05:57 2020 Page 1

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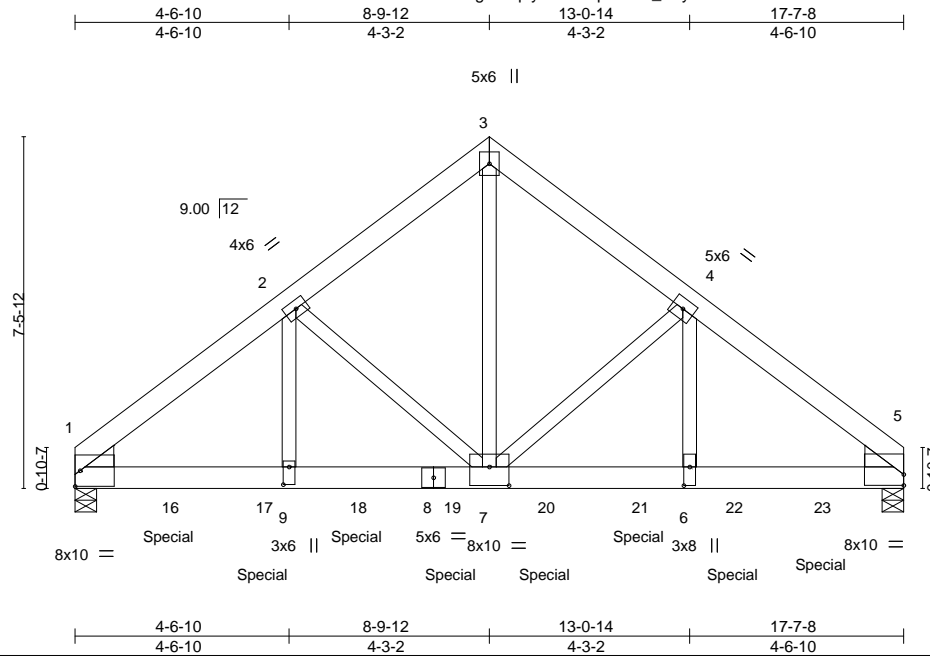


Plate Offsets (X,Y)--	[5:0-0-0,0-2-13], [6:0-4-12,0-1-8], [7:0-5-0,0-4-12], [9:0-4-8,0-1-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	0.12	6-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 1.00	Vert(CT)	-0.17	6-7	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.88	Horz(CT)	0.05	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 264 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.1 \*Except\*  
5-8: 2x6 SP DSS  
WEBS 2x4 SP No.2  
WEDGE  
Left: 2x6 SP No.2, Right: 2x6 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-9-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 9-7-10 oc bracing.

**REACTIONS.** (size) 1=0-5-8, 5=0-5-8  
Max Horz 1=221(LC 7)  
Max Uplift 1=2928(LC 8), 5=3059(LC 9)  
Max Grav 1=6734(LC 1), 5=7592(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-8743/3784, 2-3=-6440/2800, 3-4=-6444/2803, 4-5=-9373/3803  
BOT CHORD 1-9=-3036/6826, 7-9=-3036/6826, 6-7=-2938/7346, 5-6=-2938/7346  
WEBS 3-7=-3133/7203, 4-7=-2937/1267, 4-6=-1364/3651, 2-7=-2244/1237, 2-9=-1344/2840

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; 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) 1=2928, 5=3059.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1473 lb down and 720 lb up at 2-0-12, 1473 lb down and 720 lb up at 4-0-12, 1473 lb down and 720 lb up at 6-0-12, 1473 lb down and 720 lb up at 8-0-12, 1757 lb down and 710 lb up at 10-0-12, 1757 lb down and 710 lb up at 12-0-12, and 1757 lb down and 710 lb up at 14-0-12, and 1757 lb down and 710 lb up at 15-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

  
March 12, 2020

Job MASTER	Truss B02	Truss Type Common Girder	Qty 1	Ply 2	A&G/Hampton/Lot3/NewHorizons/Fayettevil E14172747 Job Reference (optional)
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:05:57 2020 Page 2  
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**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, 10-13=-20

Concentrated Loads (lb)

Vert: 16=-1473(B) 17=-1473(B) 18=-1473(B) 19=-1473(B) 20=-1757(B) 21=-1757(B) 22=-1757(B) 23=-1757(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job MASTER	Truss C01	Truss Type GABLE	Qty 2	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil Job Reference (optional)	E14172748
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:05:58 2020 Page 1

ID:ogxZoa3yXO8tXxp2GAN\_0Xyz7s4-sZHf3Jaodde12C1c\_cJDDfArITZlrud3cfW\_KTzbwwd



Scale = 1:11.5

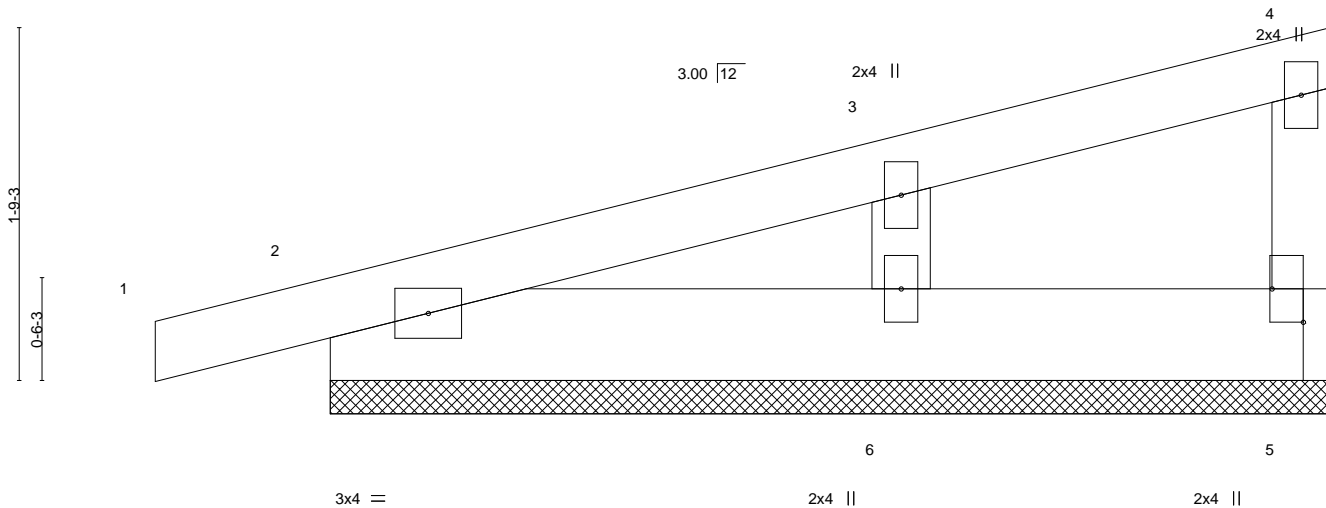


Plate Offsets (X,Y)-- [5:Edge,0-1-14]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.09	Vert(LL) -0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 23 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-0 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	

**REACTIONS.** (size) 5=5-0-0, 2=5-0-0, 6=5-0-0  
 Max Horz 2=76(LC 9)  
 Max Uplift 5=17(LC 8), 2=-83(LC 8), 6=-93(LC 12)  
 Max Grav 5=51(LC 1), 2=155(LC 1), 6=235(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 2-0-0 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, 2, 6.



March 12, 2020



Job MASTER	Truss C02	Truss Type Monopitch	Qty 8	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil E14172749
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:05:58 2020 Page 1  
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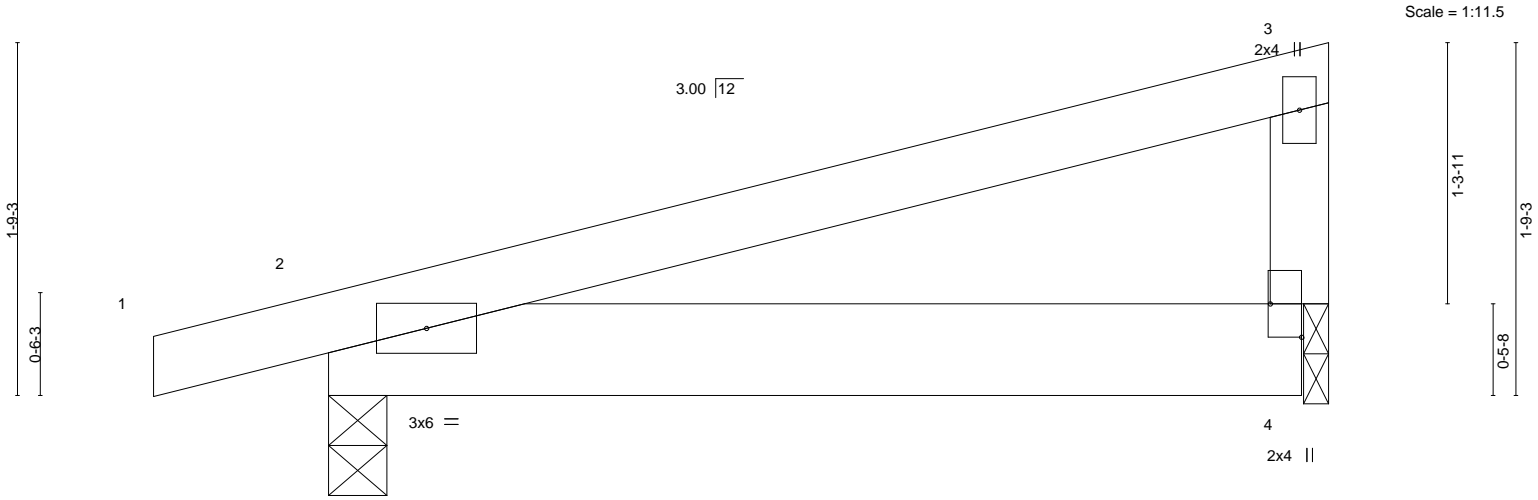


Plate Offsets (X,Y)-- [4:Edge,0-1-14]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) 0.03	4-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.02	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-AS						
							Weight: 22 lb	FT = 20%

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

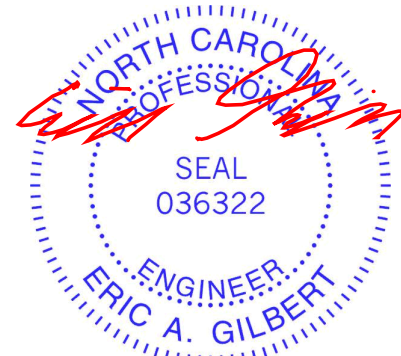
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-8, 4=0-1-8  
Max Horz 2=78(LC 8)  
Max Uplift 2=174(LC 8), 4=134(LC 8)  
Max Grav 2=251(LC 1), 4=189(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=174, 4=134.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

Job MASTER	Truss D01	Truss Type Monopitch Supported Gable	Qty 2	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil Job Reference (optional)	E14172750
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:05:59 2020 Page 1  
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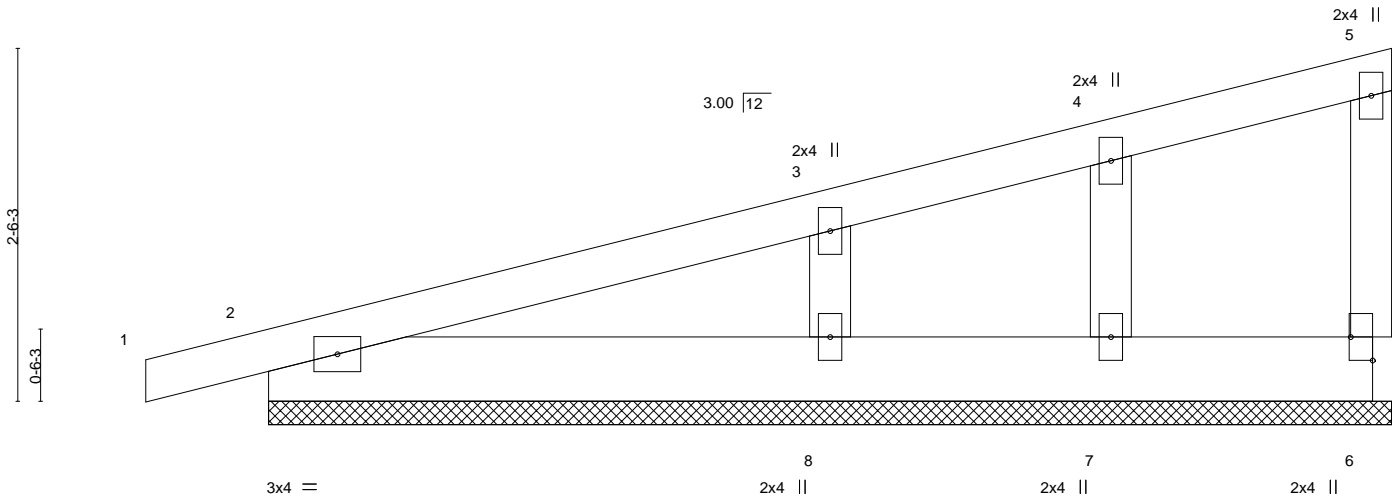


Plate Offsets (X,Y)-- [6:Edge,0-1-14]

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 0.14	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 38 lb	FT = 20%

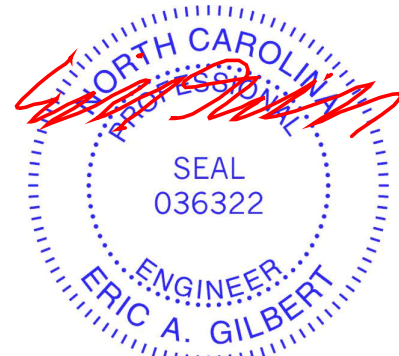
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**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 8-0-0.  
(lb) - Max Horz 2=117(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7 except 8=125(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7 except 8=314(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 2-0-0 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) 6, 2, 7 except (jt=lb) 8=125.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

Job MASTER	Truss D02	Truss Type Monopitch	Qty 6	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil Job Reference (optional)	E14172751
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:06:00 2020 Page 1  
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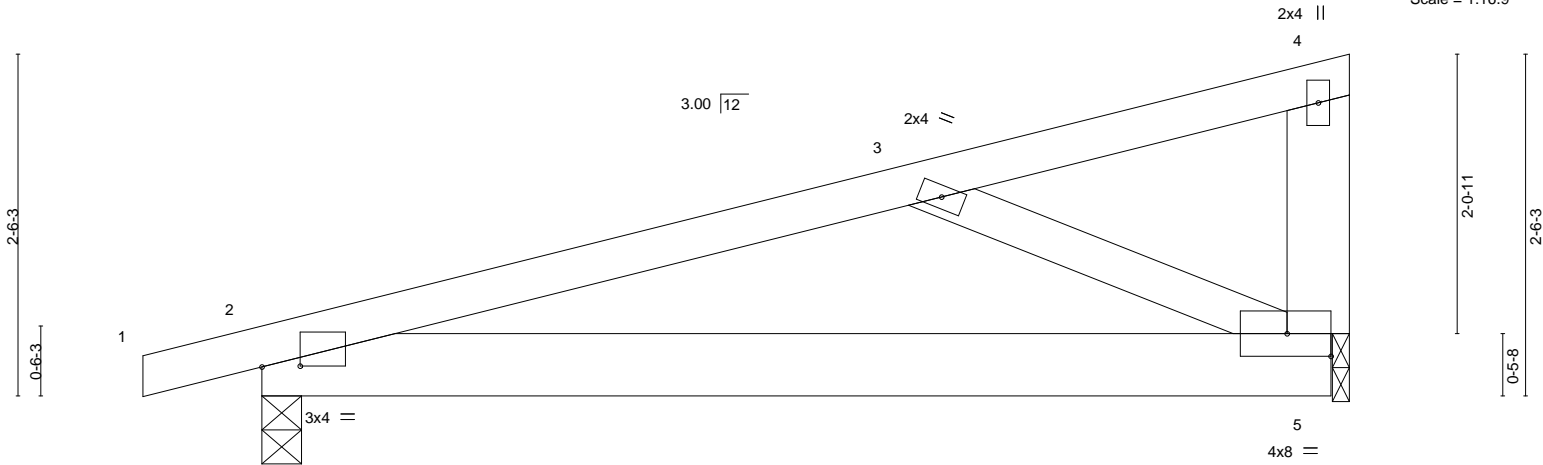


Plate Offsets (X,Y)-- [2:0-3-6,0-0-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) 0.08	5-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.06	5-8	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT) -0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS						
							Weight: 41 lb	FT = 20%

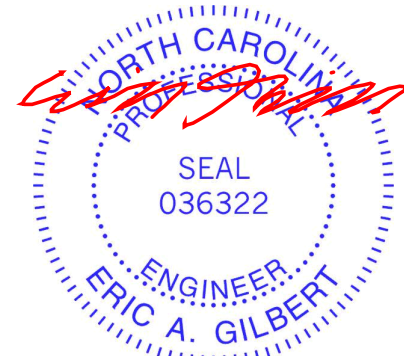
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x6 SP No.2 \*Except\*  
3-5: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-8, 5=0-1-8  
Max Horz =2116(LC 8)  
Max Uplift 2=-244(LC 8), 5=-217(LC 8)  
Max Grav 2=366(LC 1), 5=308(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-446/493  
BOT CHORD 2-5=-575/418  
WEBS 3-5=-394/493

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=244, 5=217.
  - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



March 12, 2020

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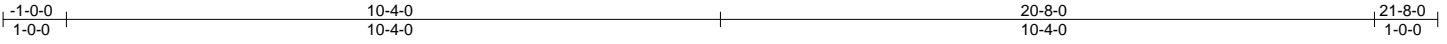
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	A&G/Hampton/Lot3/NewHorizons/Fayettevil	E14172752
MASTER	G01	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

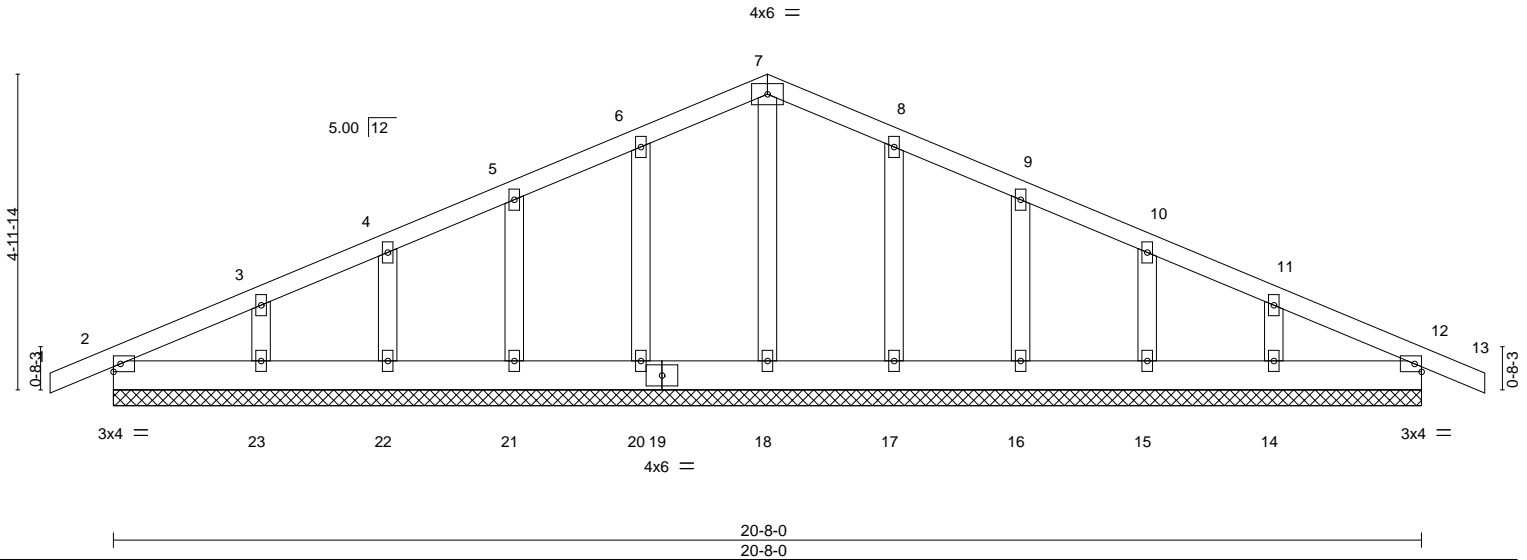
Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:06:01 2020 Page 1

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Scale = 1:36.4



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) -0.00 12 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) -0.00 13 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 12 n/a n/a		
	Code IRC2015/TPI2014			Weight: 117 lb	FT = 20%

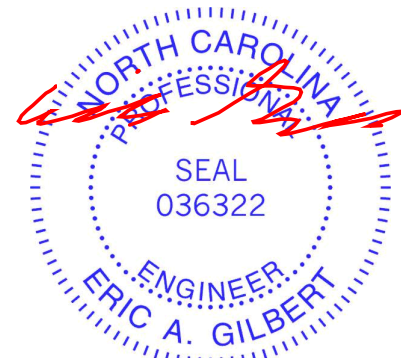
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 20-8-0.  
 (lb) - Max Horz 2=106(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 17, 16, 15, 23, 14, 12  
 Max Grav All reactions 250 lb or less at joint(s) 2, 18, 20, 21, 22, 17, 16, 15, 23, 14, 12

**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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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, 20, 21, 22, 17, 16, 15, 23, 14, 12.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

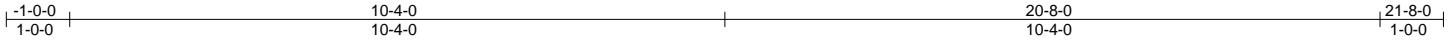
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job MASTER	Truss G02	Truss Type COMMON	Qty 5	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil Job Reference (optional)	E14172753
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:06:02 2020 Page 1

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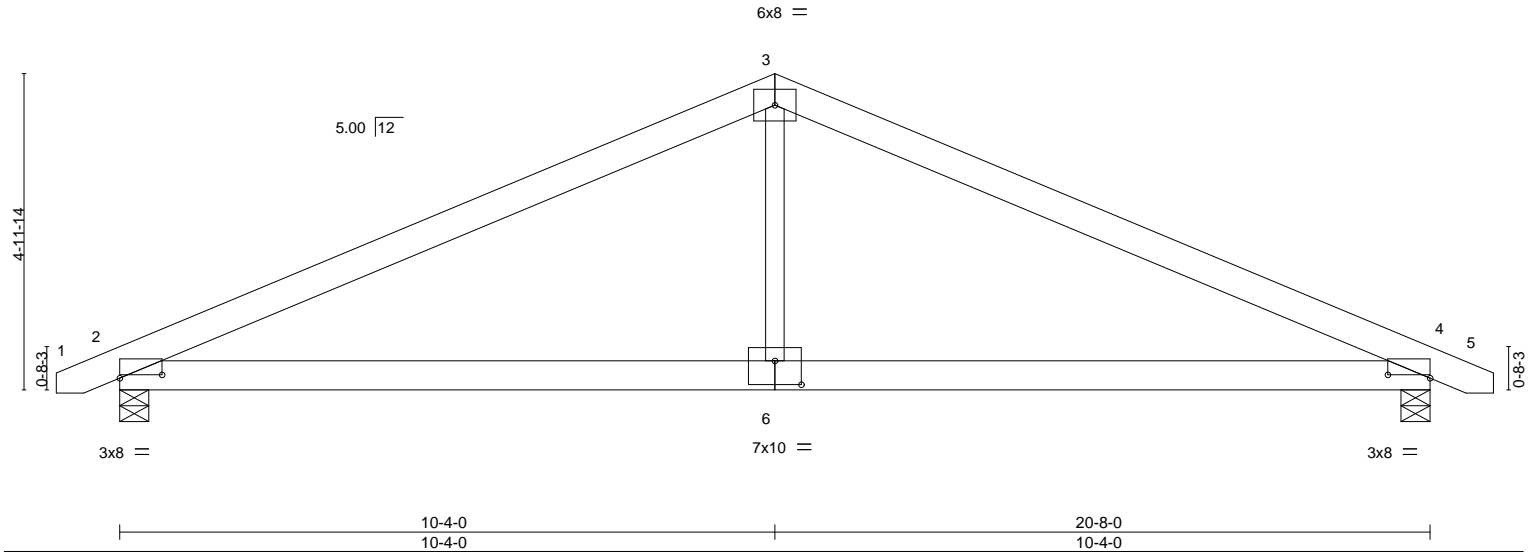


Plate Offsets (X,Y)--	[2:0-8-0,0-0-10], [4:0-8-0,0-0-10], [6:0-5-0,0-4-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.08	6-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.15	6-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.02	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.10	6-9	>999		
								Weight: 112 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 2=0-5-8, 4=0-5-8  
 Max Horz 2=104(LC 12)  
 Max Uplift 2=-247(LC 12), 4=-247(LC 13)  
 Max Grav 2=874(LC 1), 4=874(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1299/553, 3-4=-1299/553  
 BOT CHORD 2-6=-347/1106, 4-6=-347/1106  
 WEBS 3-6=0/456

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=247, 4=247.
  - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

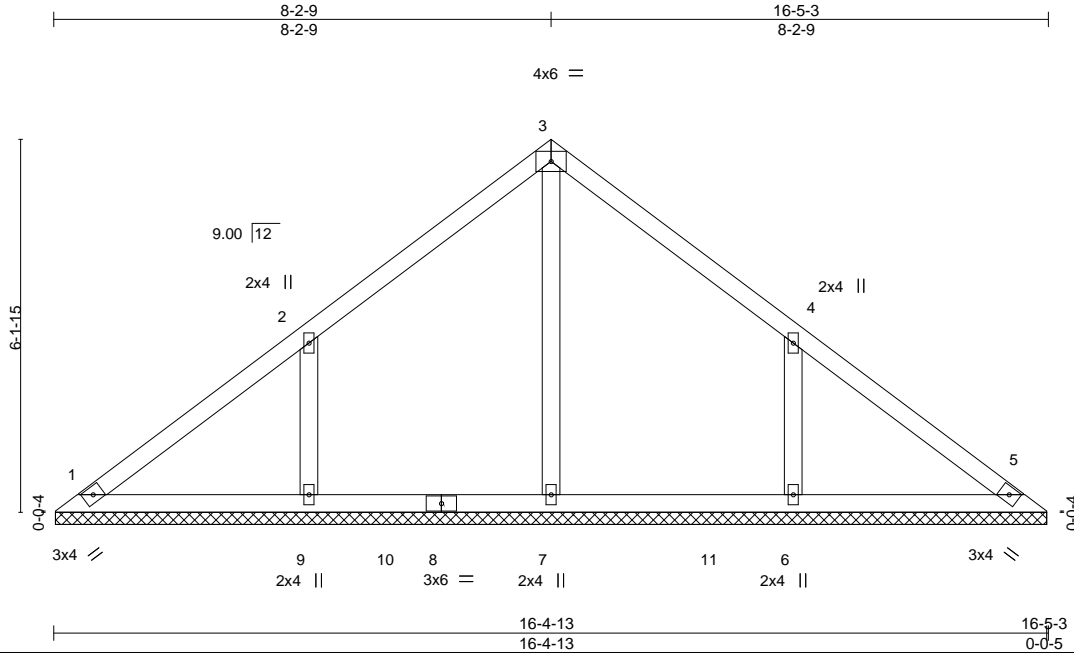


March 12, 2020

Job MASTER	Truss V01	Truss Type Valley	Qty 1	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil E14172754
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:06:03 2020 Page 1  
ID:ogxZ0q3yXO8tXxp2GAN\_0Xyz7s4-DX5Y61exSAHK9\_van9vOwjtf6UFqW8oomxDI0hzbwwY



Scale = 1:38.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 69 lb	FT = 20%
	Code IRC2015/TPI2014							

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

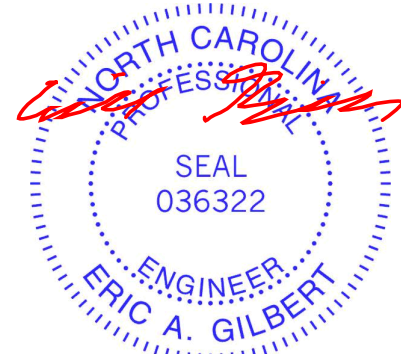
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 16-4-8.  
(lb) - Max Horz 1=195(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=272(LC 12), 6=271(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=357(LC 19), 9=447(LC 19), 6=447(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-9=-378/313, 4-6=-378/313

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) 1, 5 except (jt=lb) 9=272, 6=271.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



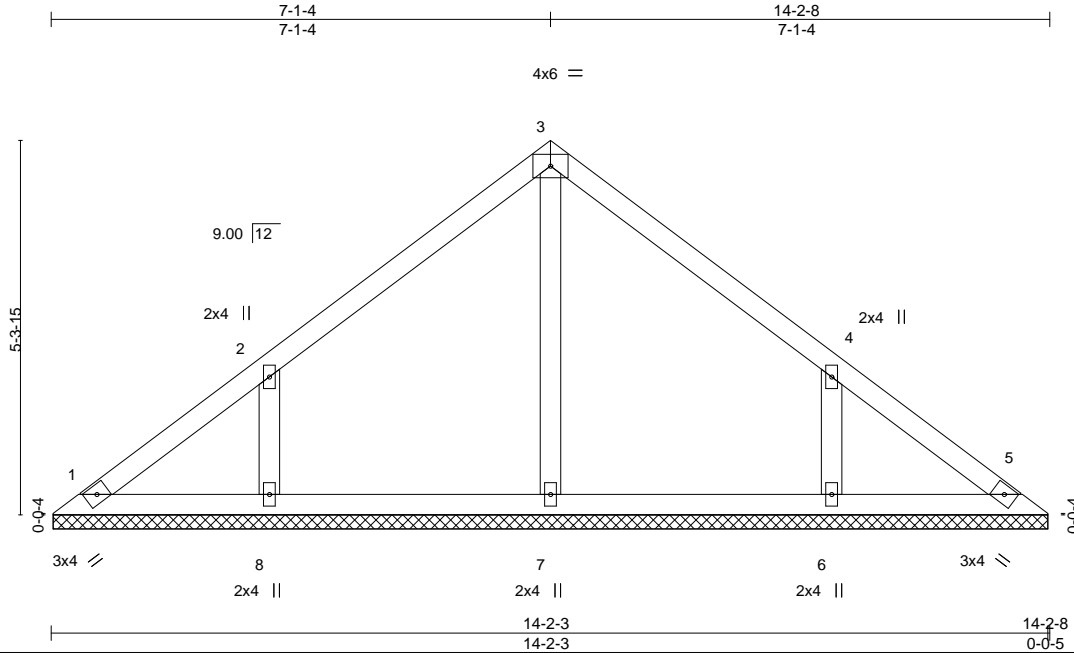
818 Soundside Road  
Edenton, NC 27932

Job MASTER	Truss V02	Truss Type Valley	Qty 1	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil	E14172755
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

8,240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:06:03 2020 Page 1

ID:ogxZoz3yXO8tXxp2GAN\_0Xyz7s4-DX5Y61exSAHK9\_van9vOwjtgiUGWW88omxDI0hzbwwY



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.18	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 58 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

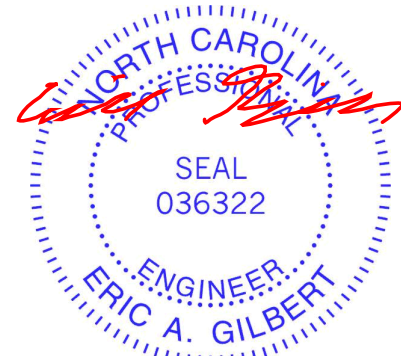
All bearings 14-1-13.  
 (lb) - Max Horz 1=167(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=237(LC 12), 6=236(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=251(LC 1), 8=366(LC 19), 6=366(LC 20)

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

WEBS 2-8=-334/277, 4-6=-334/277

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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=237, 6=236.



March 12, 2020

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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

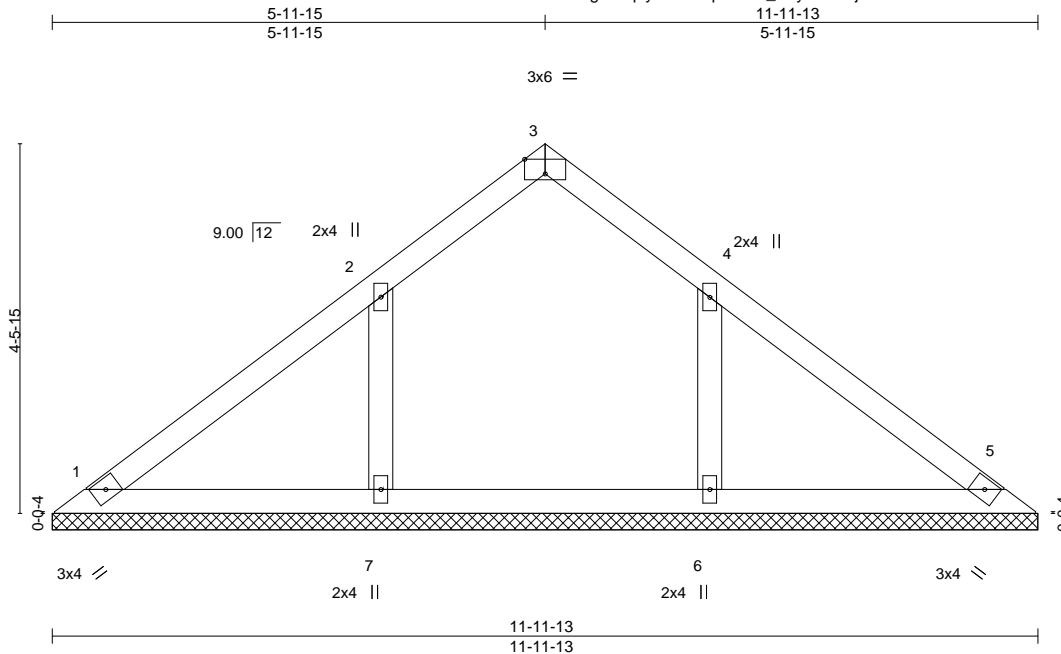


818 Soundside Road  
 Edenton, NC 27932

Job MASTER	Truss V03	Truss Type GABLE	Qty 1	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil E14172756
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8,240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:06:04 2020 Page 1  
ID:ogxZ0q3yX08tXxp2GAN\_0Xyz7s4-hjfxJNfZDTPBm7UmKtQdTwwQrfuboFbby?bzIY7zbnwX



Scale = 1:28.0

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 46 lb	FT = 20%

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

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

**REACTIONS.** All bearings 11-11-13.  
(lb) - Max Horz 1=-139(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) except 7=-197(LC 12), 6=-195(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=349(LC 19), 6=347(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-7=-299/237, 4-6=-299/235

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 197 lb uplift at joint 7 and 195 lb uplift at joint 6.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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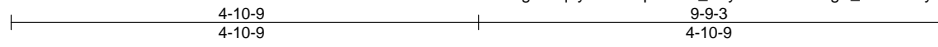
818 Soundside Road  
Edenton, NC 27932



Job MASTER	Truss V04	Truss Type GABLE	Qty 1	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil Job Reference (optional)	E14172757
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:06:05 2020 Page 1  
ID:ogxZoq3yXO8tXxp2GAN\_0Xyz7s4-9vCJXigB\_nX2OH3yuaxs?8y1nHxl\_365DFis4ZzbwwW



3x6 =

Scale: 1/2"=1'

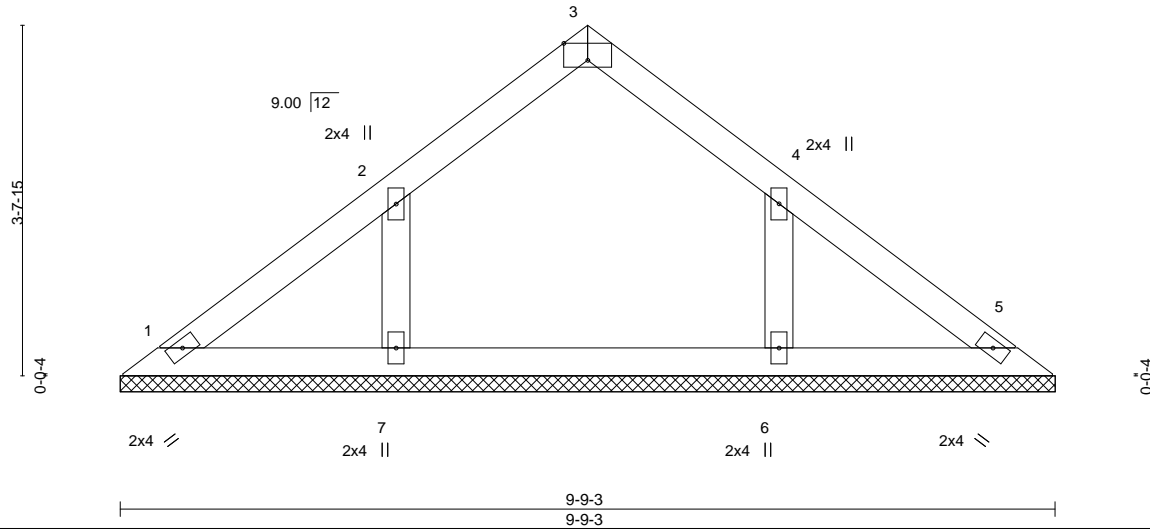


Plate Offsets (X,Y)-- [3:0-3-0,Edge], [4:0-0-1,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.08	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 0.05	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 36 lb	FT = 20%

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

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

**REACTIONS.** All bearings 9-9-3.  
(lb) - Max Horz 1=-111(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) except 7=-140(LC 12), 6=-138(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=272(LC 19), 6=270(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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 140 lb uplift at joint 7 and 138 lb uplift at joint 6.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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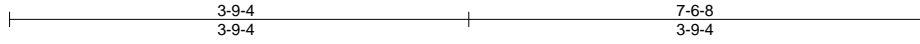


818 Soundside Road  
Edenton, NC 27932

Job MASTER	Truss V05	Truss Type Valley	Qty 1	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil E14172758
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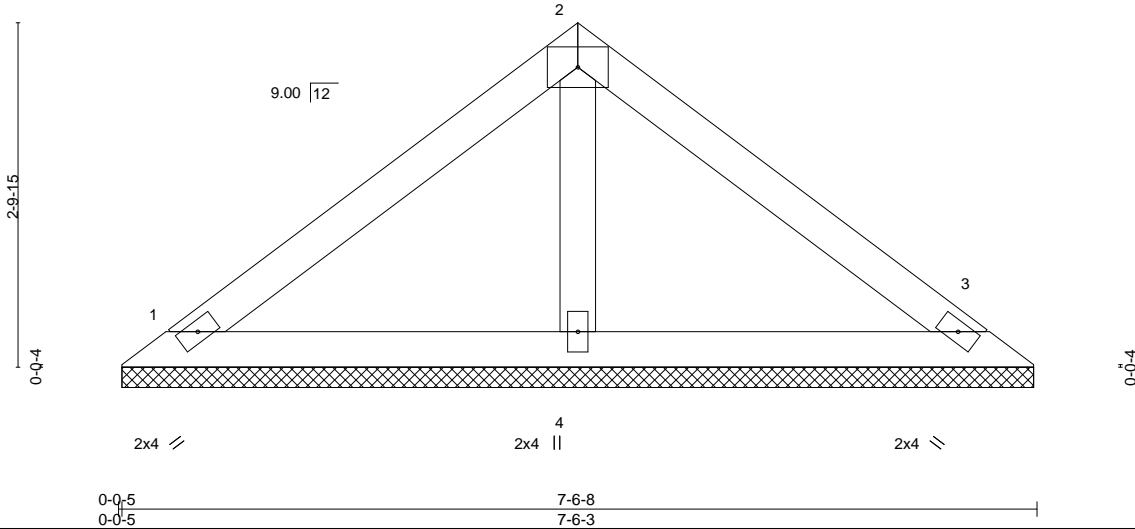
Builders FirstSource (Albermarle), Albemarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:06:06 2020 Page 1  
ID:ogxZooq3yXO8tXxp2GAN\_0Xyz7s4-d6mhk2hpI5fv0Re8SIT5YLVBNhHijWdFsvSPc0zbwwV



4x6 =

Scale = 1:18.9



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 0.11	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: 27 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

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

**BRACING-**

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

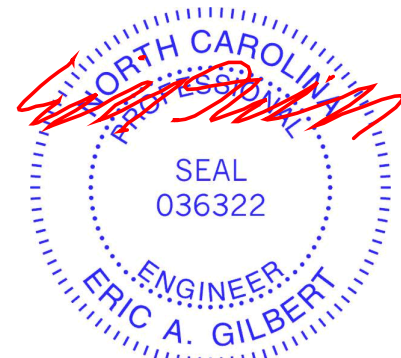
**REACTIONS.**

(size) 1=7-5-13, 3=7-5-13, 4=7-5-13  
Max Horz 1=83(LC 9)  
Max Uplift 1=-45(LC 12), 3=-56(LC 13), 4=-38(LC 12)  
Max Grav 1=136(LC 1), 3=136(LC 1), 4=261(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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 45 lb uplift at joint 1, 56 lb uplift at joint 3 and 38 lb uplift at joint 4.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

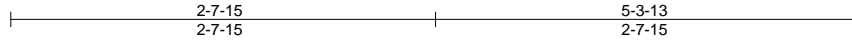


818 Soundside Road  
Edenton, NC 27932

Job MASTER	Truss V06	Truss Type Valley	Qty 1	Ply 1	A&G/Hampton/Lot3/NewHorizons/Fayettevil E14172759
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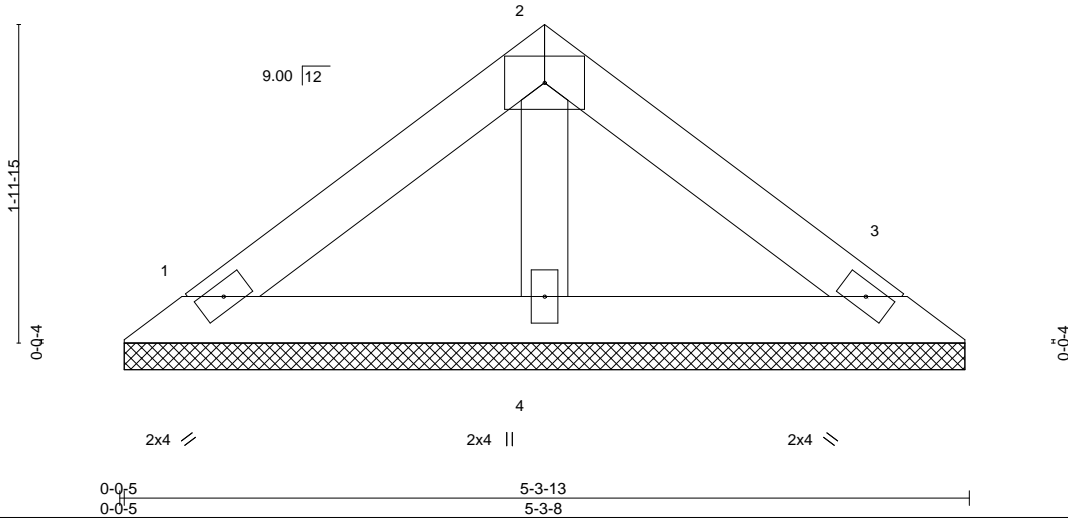
Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Feb 7 2020 MiTek Industries, Inc. Wed Mar 11 18:06:06 2020 Page 1  
ID:ogxZooq3yXO8tXxp2GAN\_0Xyz7s4-d6mhk2hpl5fv0Re8SIT5YLVCEhGjWtFSvSPc0zbwwV



4x6 =

Scale = 1:14.4



LOADING (psf)	SPACING-	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	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.00	3	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  
OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-3-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=5-3-3, 3=5-3-3, 4=5-3-3  
Max Horz 1=56(LC 11)  
Max Uplift 1=-38(LC 12), 3=-45(LC 13), 4=-10(LC 12)  
Max Grav 1=99(LC 1), 3=99(LC 1), 4=158(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=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 38 lb uplift at joint 1, 45 lb uplift at joint 3 and 10 lb uplift at joint 4.



March 12, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

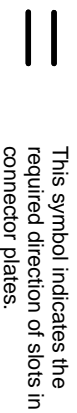
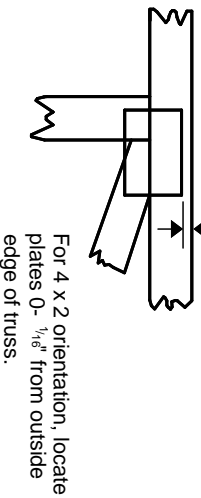
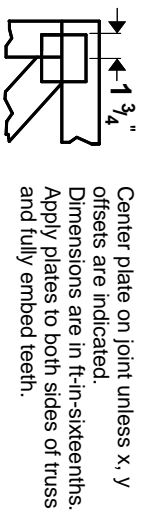
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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# Symbols

## PLATE LOCATION AND ORIENTATION



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

## PLATE SIZE

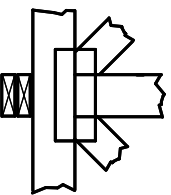
**4 X 4**

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

## LATERAL BRACING LOCATION



## BEARING

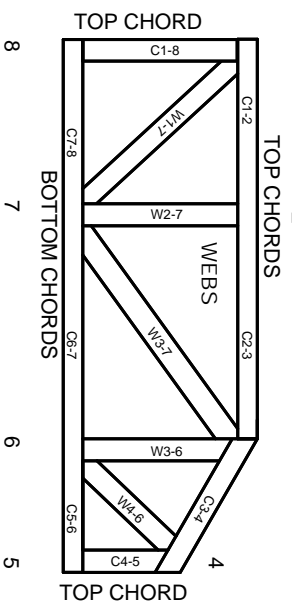


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MITek Engineering Reference Sheet: MII-7473 rev. 10/03/2015



# 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.