

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: Ash\_RF  
Lamco Custom Homes

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: E12977389 thru E12977410

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



April 30,2019

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Gilbert, Eric

**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job Ash_RF	Truss A1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977389
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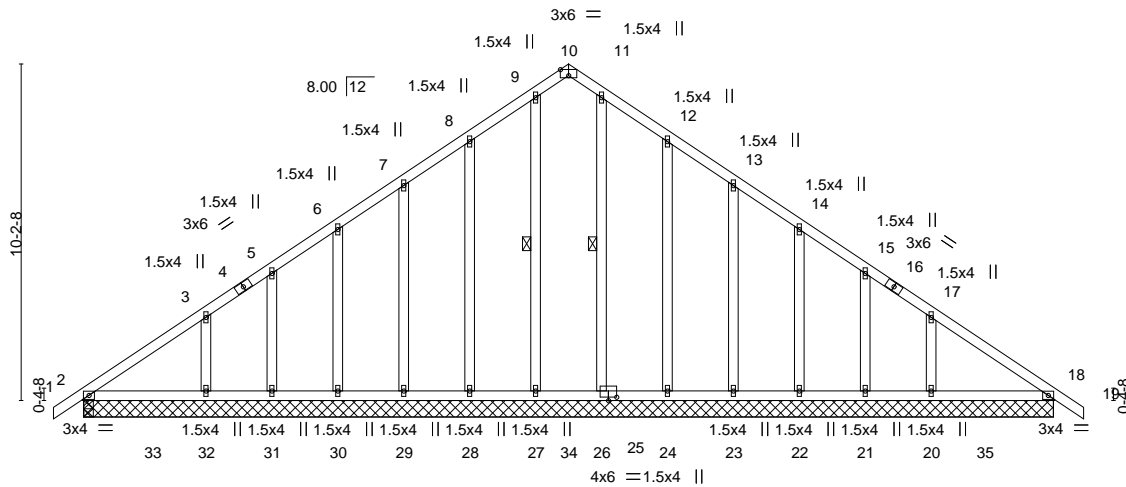
Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:22 2019 Page 1

ID:GgN1wbXHPg6COW?w\_rAWmsz1jWL-0TR1Un\_9DmTuZCMeVhgclpjROz3?mu9CltwAWzLrNx

0-10-8 14-9-0 29-6-0 30-4-8  
0-10-8 14-9-0 14-9-0 0-10-8

Scale = 1:69.9



0-0-8 29-6-0  
0-0-8 29-5-8

Plate Offsets (X,Y)-- [10:0-3-0,Edge], [25:0-0-0,0-1-12], [25:0-3-0,0-1-4], [26:0-1-12,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.14	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) -0.01 18-20 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.01 18-20 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 18 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) 0.01 18-20 >999 240	Weight: 201 lb	FT = 20%

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

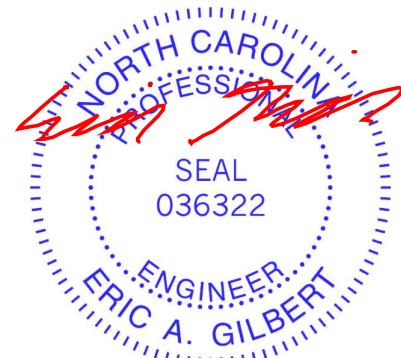
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 9-27, 11-26

**REACTIONS.** All bearings 29-5-0.  
(lb) - Max Horz 2=-176(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20  
Max Grav All reactions 250 lb or less at joint(s) 2, 2, 27, 28, 29, 30, 31, 26, 24, 23, 22, 21, 18 except  
32=299(LC 26), 20=292(LC 31)

**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=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 14-9-0, Corner(3) 14-9-0 to 17-9-0, Exterior(2) 17-9-0 to 30-4-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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) 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20.



April 30, 2019

**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.



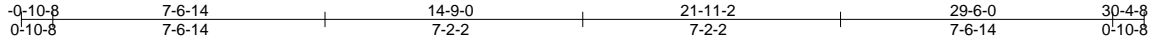
818 Soundside Road  
Edenton, NC 27932

Job Ash_RF	Truss A2	Truss Type COMMON	Qty 3	Ply 1	Lamco Custom Homes	E12977390
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:23 2019 Page 1

ID:GgN1wbXHPg6COW?w\_rAWmsz1jWL-Ug?Ph7\_nz4bBMxq3PBrl0Ftno9QkBIJQycUjzzLrNw



4x6 ||

Scale: 3/16"=1'

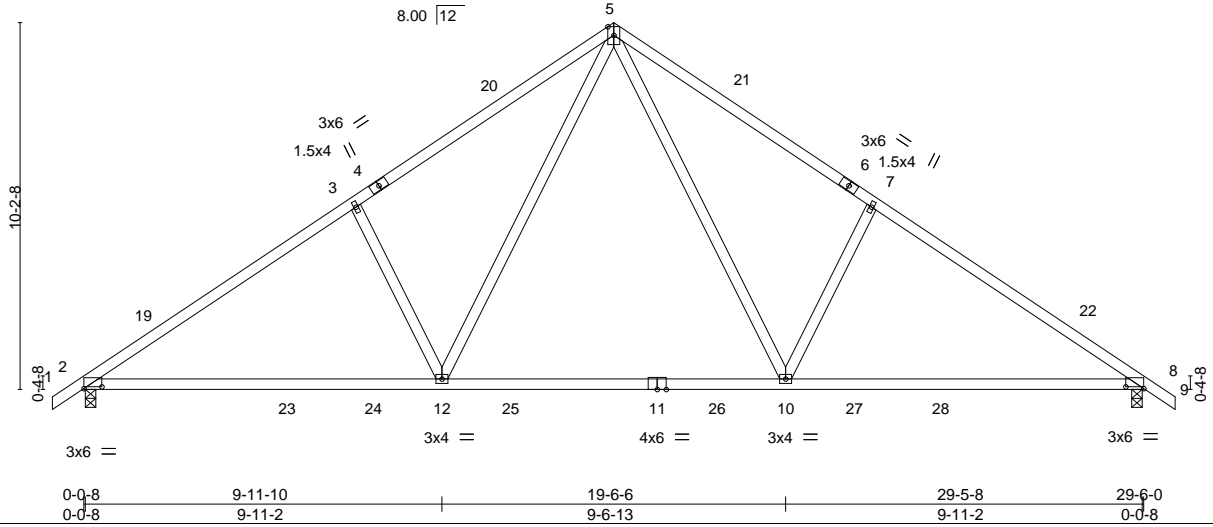


Plate Offsets (X,Y)-- [2:0-6-0,0-0-10], [8:0-6-0,0-0-10]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.73	Vert(LL) -0.27 10-12 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.32	Vert(CT) -0.40 10-18 >879 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.05 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) 0.08 12-15 >999 240	Weight: 148 lb	FT = 20%

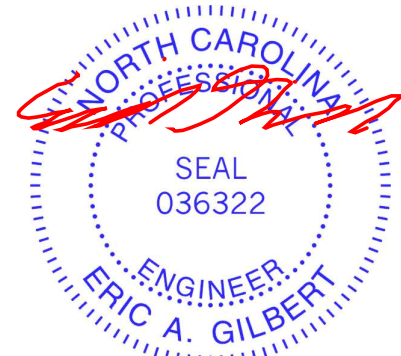
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.3

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

**REACTIONS.** (lb/size) 2=1089/0-3-8, 8=1089/0-3-8  
 Max Horz 2=-176(LC 12)  
 Max Grav 2=1284(LC 26), 8=1284(LC 27)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1795/111, 3-5=-1676/181, 5-7=-1676/181, 7-8=-1795/111  
 BOT CHORD 2-12=0/1560, 10-12=0/1005, 8-10=0/1440  
 WEBS 5-10=-39/838, 7-10=-435/166, 5-12=-39/837, 3-12=-435/166

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-9-0, Exterior(2) 14-9-0 to 17-9-0, Interior(1) 17-9-0 to 30-4-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 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.



April 30, 2019

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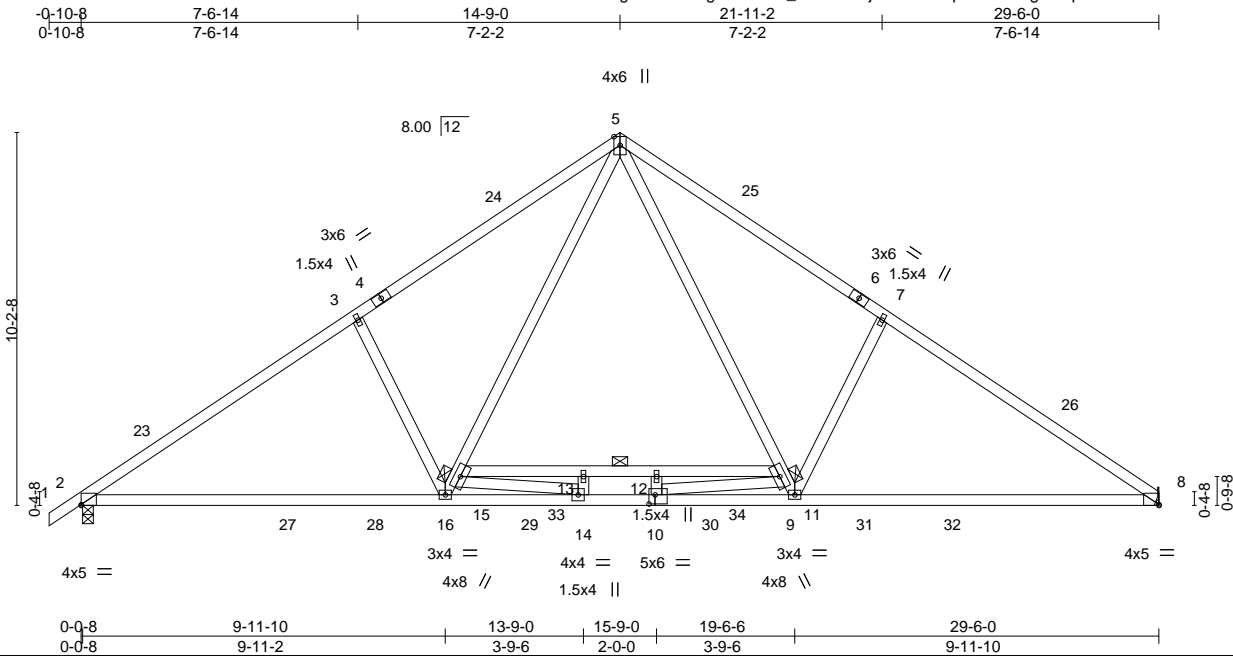


818 Soundside Road  
 Edenton, NC 27932

Job Ash_RF	Truss A3	Truss Type COMMON	Qty 10	Ply 1	Lamco Custom Homes	E12977391
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:25 2019 Page 1  
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Scale = 1:63.1

LOADING (psf)		SPACING-		CSI.		DEFL.			PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.63	Vert(LL)	-0.21	16-19	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.47	16-19	>747	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.07	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.08	9-22	>999	240	Weight: 171 lb	FT = 20%
BCDL	10.0											

**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.  
 BOT CHORD Rigid ceiling directly applied. Except:  
 5-9-0 oc bracing: 11-15

**REACTIONS.** (lb/size) 2=1180/0-3-8, 8=1134/Mechanical  
 Max Horz 2=172(LC 11)  
 Max Grav 2=1438(LC 26), 8=1389(LC 27)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2057/17, 3-5=-1939/87, 5-7=-1942/93, 7-8=-2059/10  
 BOT CHORD 2-16=0/1775, 14-16=0/1273, 10-14=0/1945, 9-10=0/1261, 8-9=0/1657, 13-15=-981/0,  
 12-13=-979/0, 11-12=-986/0  
 WEBS 5-11=0/1004, 9-11=-52/767, 7-9=-442/167, 15-16=-49/764, 5-15=0/1000, 3-16=-440/166,  
 14-15=0/865, 10-11=0/870

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-9-0, Exterior(2) 14-9-0 to 17-9-0, Interior(1) 17-9-0 to 29-6-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - 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.



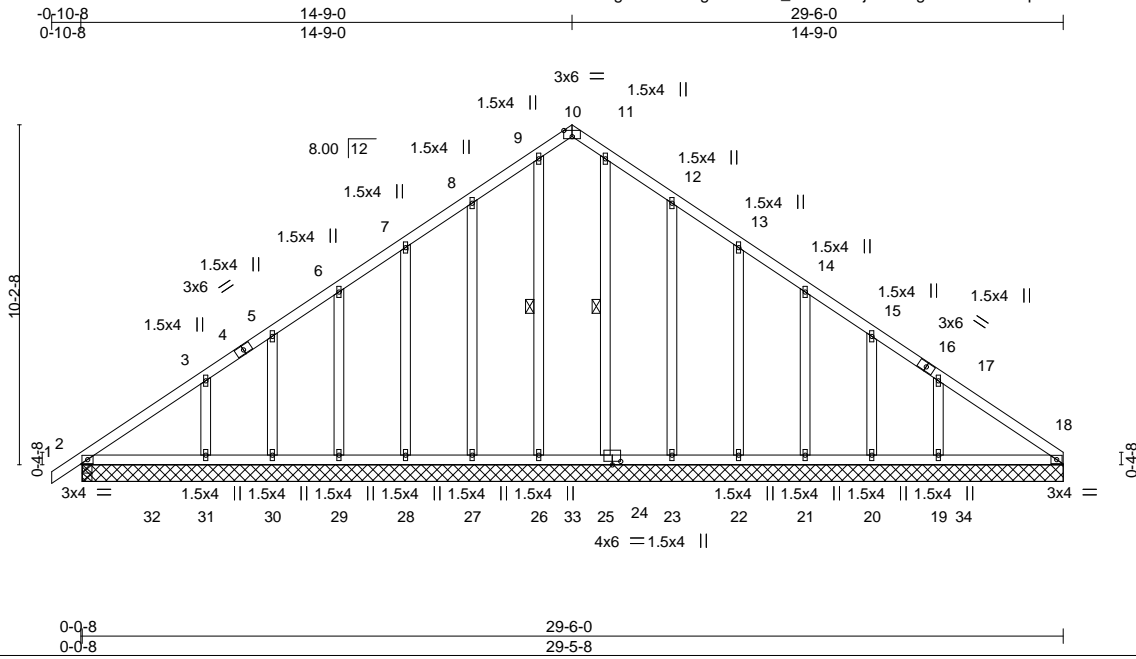
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job Ash_RF	Truss A4	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977392
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:26 2019 Page 1  
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Scale = 1:69.2

LOADING (psf)		SPACING-		CSI.		DEFL.			PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.16	Vert(LL)	-0.01	18-19	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	18-19	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	18	n/a	n/a		
BCLL	0.0 *	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.01	18-19	>999	240	Weight: 200 lb	FT = 20%
BCDL	10.0											

LUMBER-	BRACING-		
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	WEBS	1 Row at midpt 9-26, 11-25

**REACTIONS.** All bearings 29-5-8.  
 (lb) - Max Horz 2=173(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 26, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19  
 Max Grav All reactions 250 lb or less at joint(s) 2, 2, 26, 27, 28, 29, 30, 25, 23, 22, 21, 20, 18 except  
 31=299(LC 26), 19=305(LC 31)

**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=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 14-9-0, Corner(3) 14-9-0 to 17-9-0, Exterior(2) 17-9-0 to 29-6-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - 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) 26, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19.

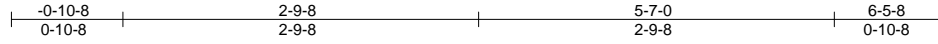


April 30, 2019

Job Ash_RF	Truss B1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977393
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:27 2019 Page 1  
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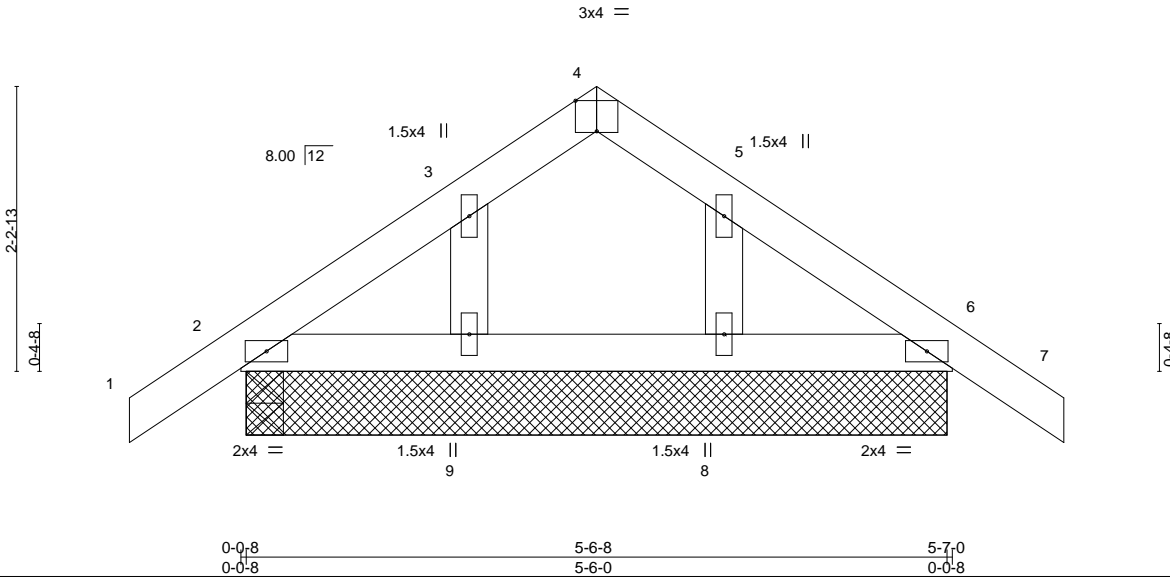


Plate Offsets (X,Y)-- [4:0-2-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.05	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 8 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.02	Vert(CT) -0.00 8 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) 0.00 8 **** 240	Weight: 25 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 5-7-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-6-0.  
(lb) - Max Horz 2=41(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 9, 8  
Max Grav All reactions 250 lb or less at joint(s) 2, 2, 6, 9, 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 2-9-8, Corner(3) 2-9-8 to 5-7-0, Exterior(2) 5-7-0 to 6-5-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - 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) 9, 8.



April 30, 2019

**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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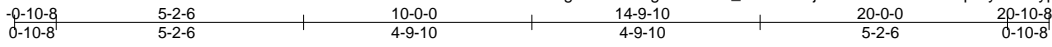
818 Soundside Road  
Edenton, NC 27932

Job Ash_RF	Truss C1	Truss Type COMMON STRUCTURAL GA	Qty 1	Ply 1	Lamco Custom Homes	E12977394
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Builders FirstSource, Albemarle, NC 28001

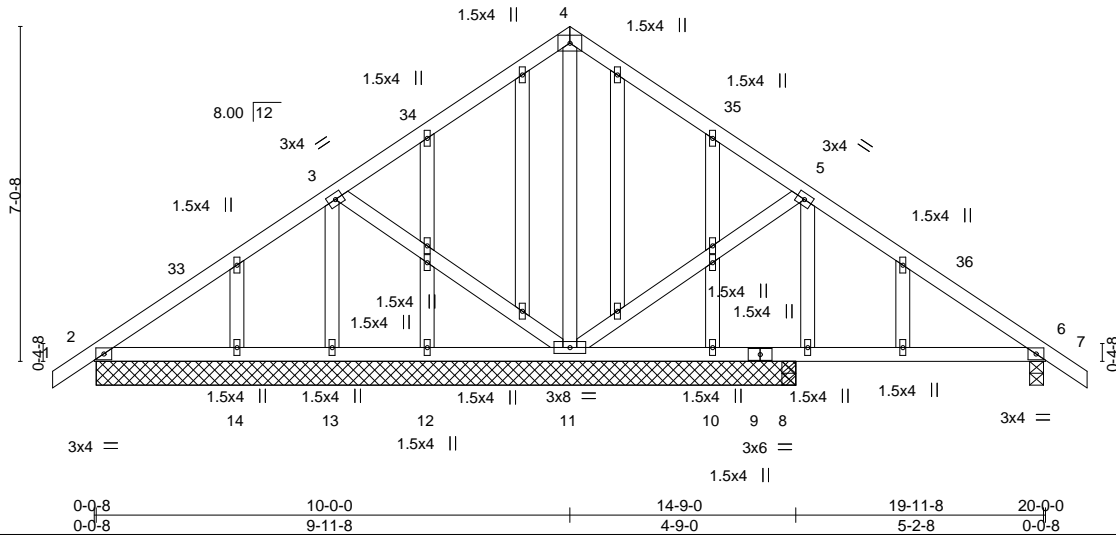
8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:28 2019 Page 1

ID:GgN1wbXHPg6COW?w\_rAWmsz1jWl-rd0llr2vocD1H7porym0?3ypjp\_nPSv2aEKFOAzLrNr



4x6 =

Scale: 1/4"=1'



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.21	Vert(LL) -0.02 8-32 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.32	Vert(CT) -0.04 8-32 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) -0.01 8-32 >999 240	Weight: 139 lb	FT = 20%

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

**REACTIONS.** All bearings 14-8-8 except (jt=length) 6=0-3-8, 8=0-3-8.  
 (lb) - Max Horz 2=122(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 11, 10, 6  
 Max Grav All reactions 250 lb or less at joint(s) 12, 13, 14, 10, 8 except 2=317(LC 30), 11=766(LC 2), 6=357(LC 31), 2=256(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-298/63, 5-6=-289/66  
 WEBS 4-11=-364/38, 5-11=-306/124, 3-11=-293/126

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - 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, 11, 10, 6, 2.
  - 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.

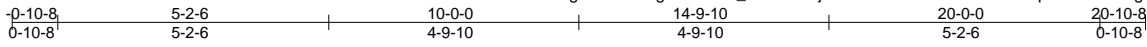


April 30, 2019

Job Ash_RF	Truss C2	Truss Type COMMON	Qty 6	Ply 1	Lamco Custom Homes	E12977395
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:30 2019 Page 1  
ID:GgN1wbXHPg6COW?w\_rAWmsz1jWL-n0w29W4AKETiXRzAzNpU4U273dWgNcl1YpLT3zLrNp



4x6 =

Scale = 1:44.2

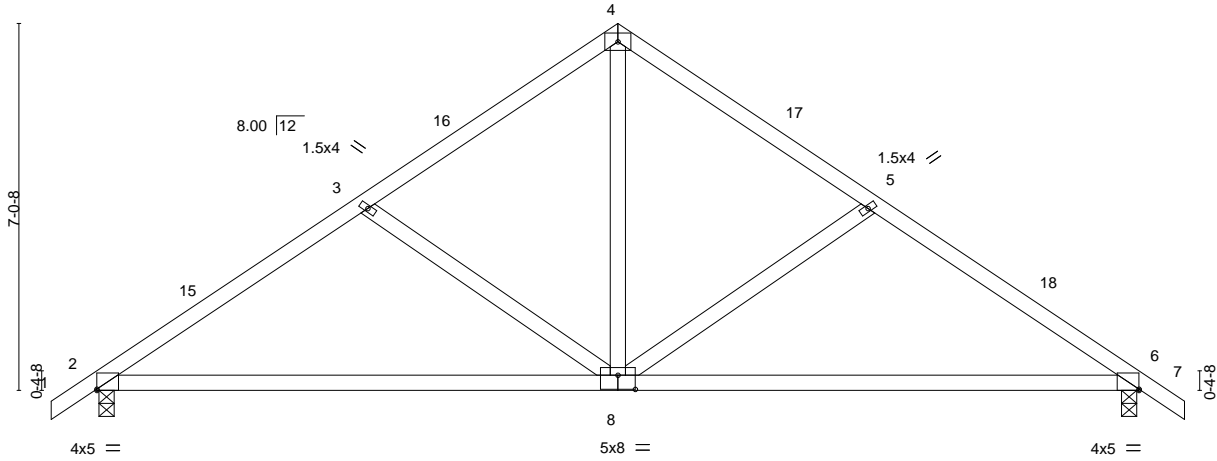


Plate Offsets (X,Y)-- [2:0-0-0,0-0-5], [6:Edge,0-0-5], [8:0-4-0,0-3-4]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.42	Vert(LL) -0.16	8-14	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.89	Vert(CT) -0.33	8-14	>721	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.24	Horz(CT) 0.03	6	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Wind(LL) 0.03	8-11	>999	240		
BCDL 10.0	Code IRC2015/TPI2014						Weight: 96 lb	FT = 20%

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

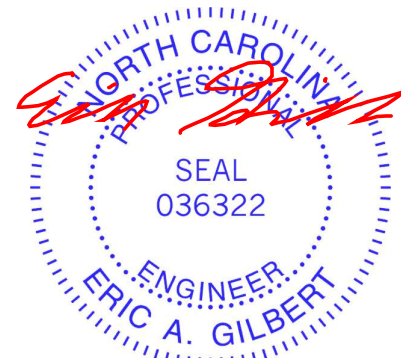
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 2=752/0-3-8, 6=752/0-3-8  
Max Horz 2=122(LC 13)  
Max Grav 2=853(LC 2), 6=853(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1107/96, 3-4=-852/92, 4-5=-852/92, 5-6=-1107/96  
BOT CHORD 2-8=0/892, 6-8=-1/892  
WEBS 4-8=0/609, 5-8=-328/110, 3-8=-328/110

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.



April 30, 2019

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818 Soundside Road  
Edenton, NC 27932



Job Ash_RF	Truss C3	Truss Type COMMON GIRDER	Qty 1	Ply 3	Lamco Custom Homes Job Reference (optional)	E12977396
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:31 2019 Page 1  
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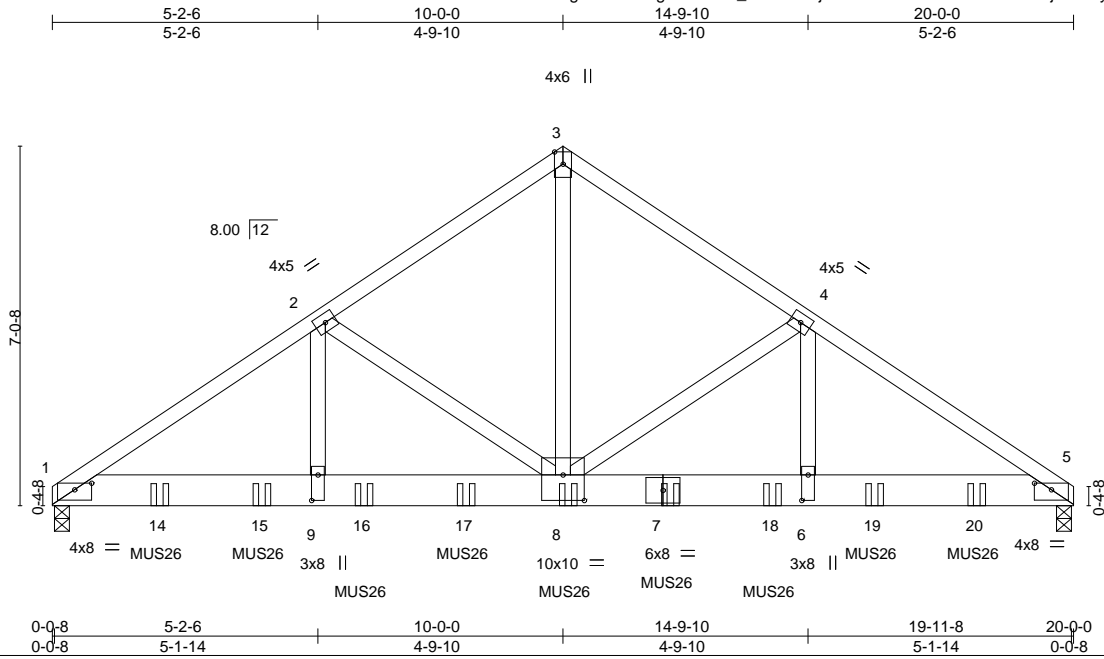


Plate Offsets (X,Y)--	[1:0-4-0,0-1-9], [5:0-4-0,0-1-9], [6:0-6-0,0-1-8], [8:0-5-0,0-6-0], [9:0-6-0,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.41	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.40	Vert(LL) -0.08 8-9 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.61	Vert(CT) -0.17 8-9 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.04 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) -0.01 9 >999 240	Weight: 396 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP DSS  
WEBS 2x4 SP No.3 \*Except\*  
3-8: 2x4 SP No.2

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

**REACTIONS.** (lb/size) 1=5684/0-3-8, 5=5868/0-3-8  
Max Horz 1=-112(LC 29)  
Max Grav 1=6608(LC 3), 5=6805(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-10325/0, 2-3=-6985/0, 3-4=-6986/0, 4-5=-10281/0  
BOT CHORD 1-9=0/8568, 8-9=0/8568, 6-8=0/8533, 5-6=0/8533  
WEBS 3-8=0/7430, 4-8=-3393/0, 4-6=0/3530, 2-8=-3436/0, 2-9=0/3581

- NOTES-**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 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=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 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.
  - Use Simpson Strong-Tie MUS26 (6-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-1-4 from the left end to 18-1-4 to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-51, 3-5=-51, 1-5=-20



April 30, 2019

Continued on page 2

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

Job Ash_RF	Truss C3	Truss Type COMMON GIRDER	Qty 1	Ply <b>3</b>	Lamco Custom Homes Job Reference (optional)	E12977396
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:31 2019 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 5=-108 7=-1114(B) 8=-1114(B) 14=-1114(B) 15=-1114(B) 16=-1114(B) 17=-1114(B) 18=-1114(B) 19=-1114(B) 20=-1114(B)

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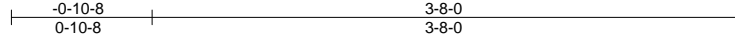


818 Soundside Road  
Edenton, NC 27932

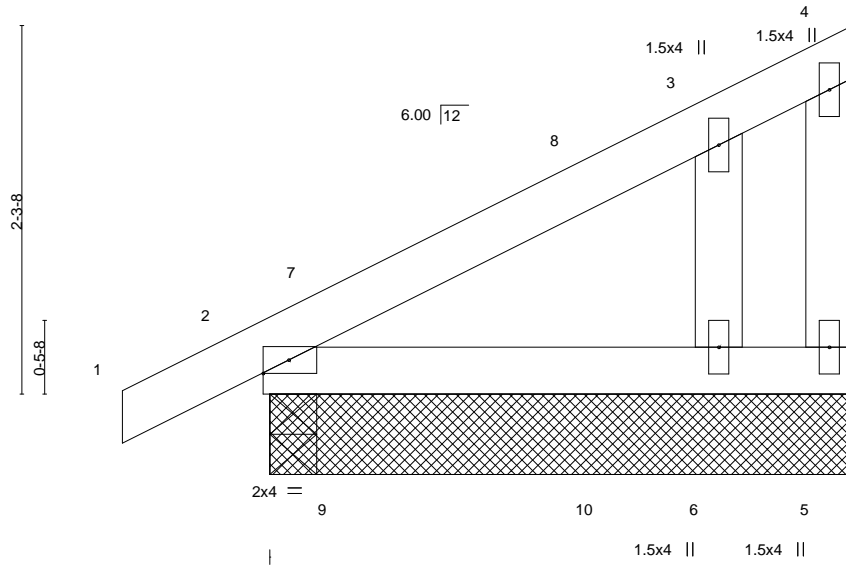
Job Ash_RF	Truss D1	Truss Type MONOPITCH SUPPORTED	Qty 1	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977397
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:32 2019 Page 1  
ID:GgN1wbXHPg6COW?w\_rAWmsz1jWL-kP1paC5QsrjTml7Z4ony9v7YnQNpLJdVsiSXzLrNn



Scale = 1:14.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.08	Vert(LL) -0.00 2-6 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) -0.00 2-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) 0.01 2-6 >999 240	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

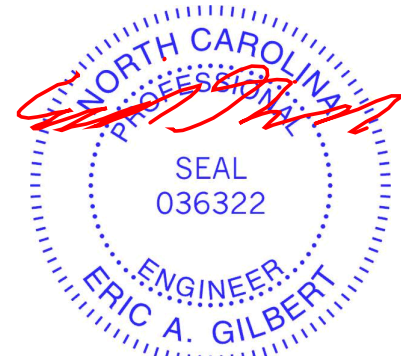
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-8-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 3-7-8.  
 (lb) - Max Horz 2=49(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 5, 6  
 Max Grav All reactions 250 lb or less at joint(s) 5, 2, 2, 6

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 3-6-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 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) 5, 6.



April 30, 2019

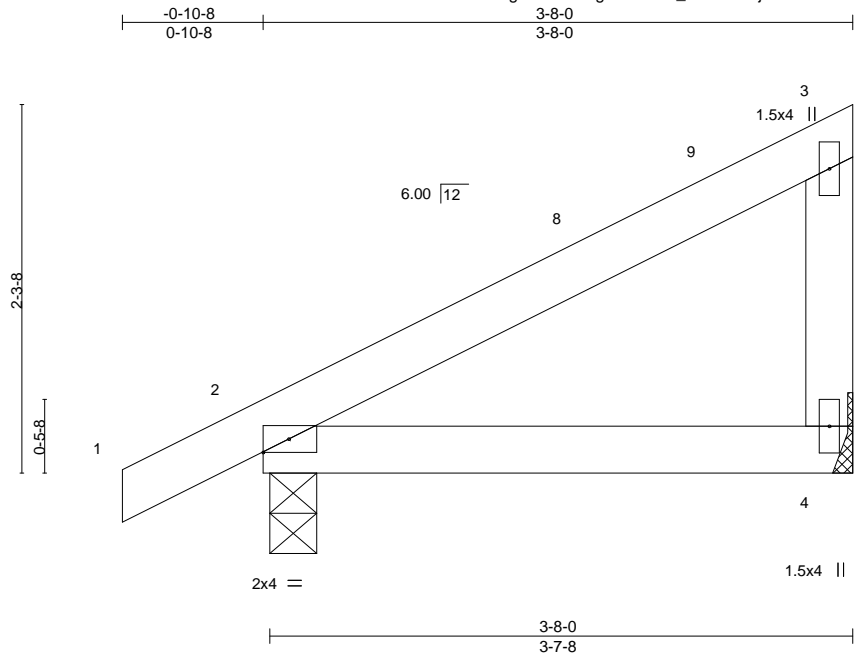
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818 Soundside Road  
Edenton, NC 27932

Job Ash_RF	Truss D2	Truss Type MONOPITCH	Qty 7	Ply 1	Lamco Custom Homes	E12977398
Builders FirstSource, Albemarle, NC 28001					8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:33 2019 Page 1	
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Job Reference (optional)						



Scale = 1:14.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.17	Vert(LL)	-0.01	4-7	>999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	-0.01	4-7	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	2	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Wind(LL)	0.01	4-7	>999		
BCDL 10.0	Code IRC2015/TPI2014						Weight: 16 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

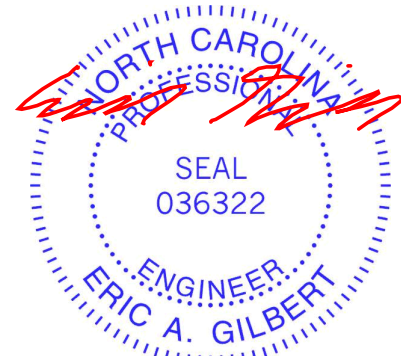
TOP CHORD Structural wood sheathing directly applied or 3-8-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 4=119/Mechanical, 2=175/0-3-8  
 Max Horz 2=48(LC 16)  
 Max Uplift 4=-9(LC 16)  
 Max Grav 4=134(LC 2), 2=200(LC 2)

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

**NOTES-**

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-6-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4.



April 30, 2019

**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.



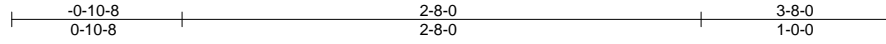
818 Soundside Road  
 Edenton, NC 27932

Job Ash_RF	Truss D3	Truss Type ROOF SPECIAL	Qty 1	Ply 2	Lamco Custom Homes	E12977399
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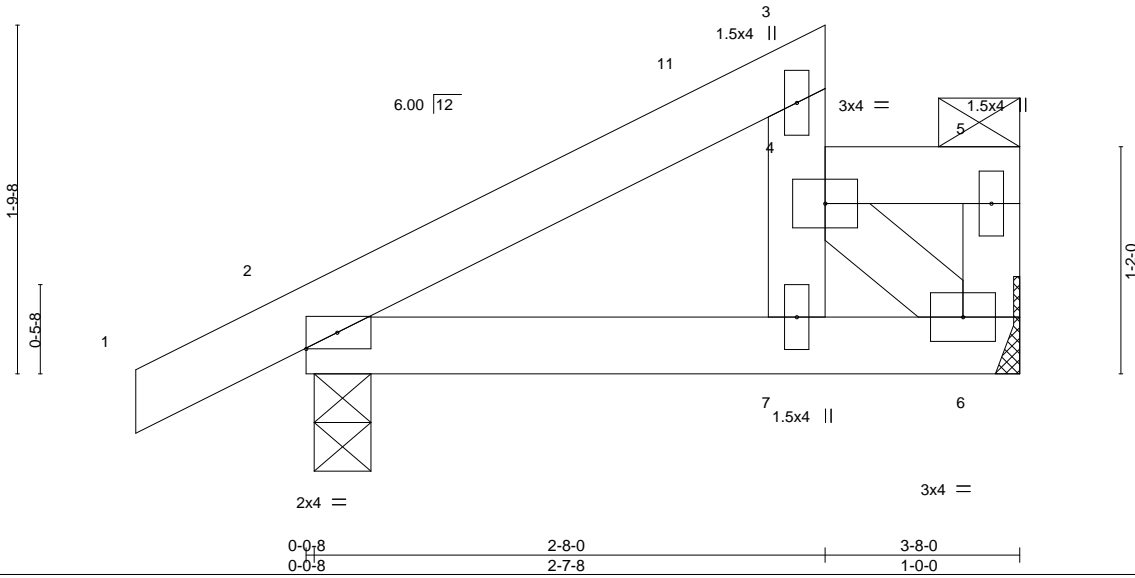
Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:34 2019 Page 1

ID:GgN1wbXHPg6COW?w\_RAWmsz1jWL-gn9Z?u7gOSzB?2HxCctQFKCqeE3YpDGwy9nZcqzLrNI



Scale = 1:11.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.38	Vert(LL)	-0.00	7	>999	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	-0.01	7	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	0.00	6	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MP	Wind(LL)	0.00	7	>999		
BCDL 10.0	Code IRC2015/TPI2014						Weight: 34 lb	FT = 20%

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

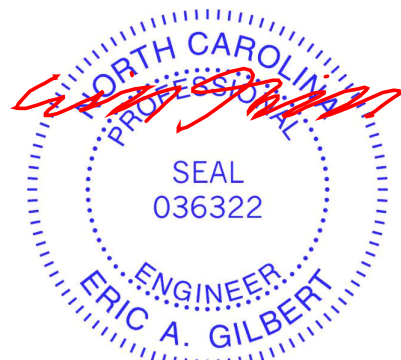
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-8-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5. Except: 10-0-0 oc bracing: 3-4  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=346/0-3-8, 6=557/Mechanical  
 Max Horz 2=37(LC 16)  
 Max Grav 2=429(LC 36), 6=560(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-420/115  
 BOT CHORD 2-7=-123/335, 6-7=-198/539  
 WEBS 4-6=-716/263

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-6-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard



April 30, 2019

Continued on page 2

**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 Ash_RF	Truss D3	Truss Type ROOF SPECIAL	Qty 1	Ply <b>2</b>	Lamco Custom Homes Job Reference (optional)	E12977399
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:34 2019 Page 2  
ID:GgN1wbXHPg6COW?w\_rAWmsz1jWL-gn9Z?u7gOSzB?2HxCctQFKCqeE3YpDGwy9nZcqzLrNI

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-51, 6-8=-20, 4-5=-61

Concentrated Loads (lb)

Vert: 4=-600

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

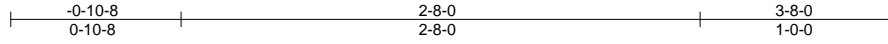
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



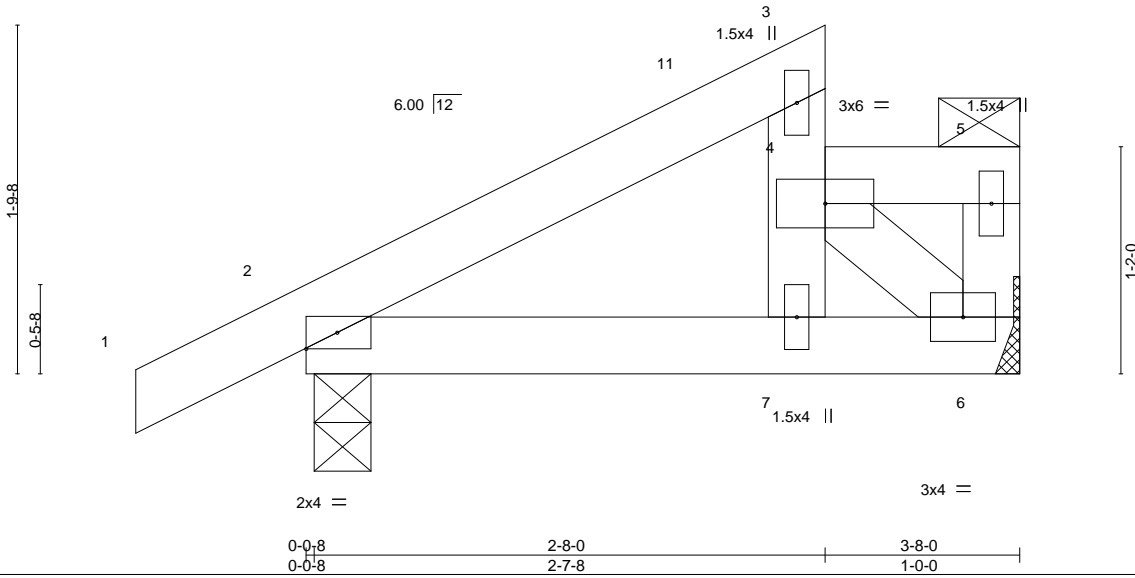
818 Soundside Road  
Edenton, NC 27932

Job Ash_RF	Truss D4	Truss Type ROOF SPECIAL	Qty 2	Ply 1	Lamco Custom Homes	E12977400
Builders FirstSource, Albemarle, NC 28001					Job Reference (optional)	

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:35 2019 Page 1  
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Scale = 1:11.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.77	Vert(LL) -0.01	7	>999	360	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.25	Vert(CT) -0.01	7-10	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.14	Horz(CT) 0.00	6	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MP	Wind(LL) 0.01	7	>999	240		
BCDL 10.0	Code IRC2015/TPI2014						Weight: 17 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-8-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5. Except:
BOT CHORD 2x4 SP No.2	10-0-0 oc bracing: 3-4
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=346/0-3-8, 6=557/Mechanical  
 Max Horz 2=37(LC 16)  
 Max Grav 2=429(LC 36), 6=560(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-420/115  
 BOT CHORD 2-7=-123/335, 6-7=-199/539  
 WEBS 4-6=-717/264

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-6-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-51, 6-8=-20, 4-5=-61  
 Concentrated Loads (lb)  
 Vert: 4=-600



April 30, 2019

**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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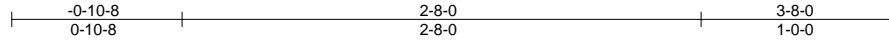
818 Soundside Road  
 Edenton, NC 27932

Job Ash_RF	Truss D5	Truss Type ROOF SPECIAL SUPPORT	Qty 1	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977401
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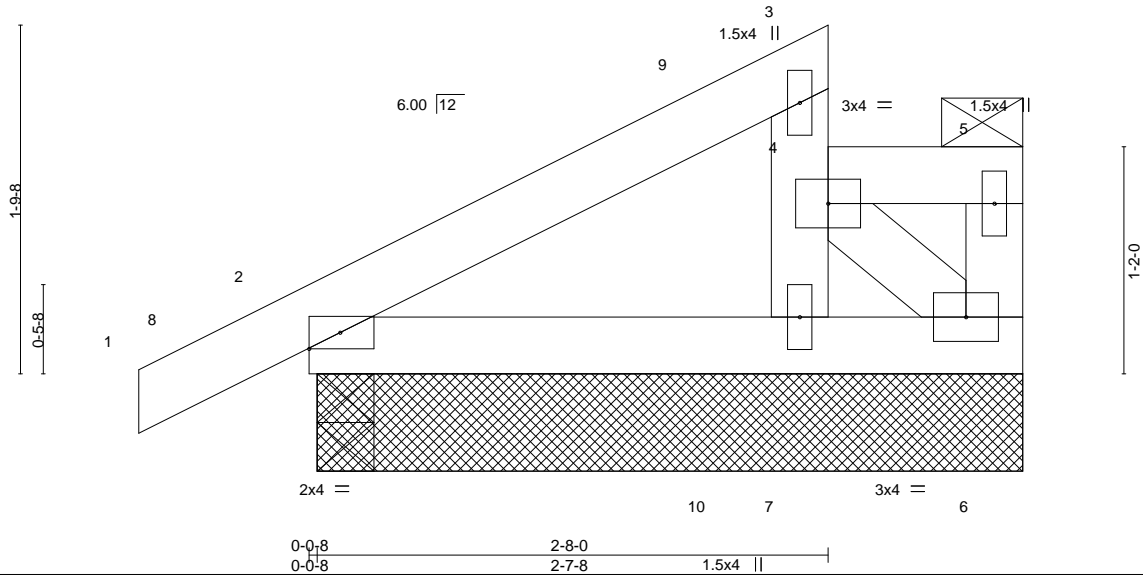
Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:36 2019 Page 1

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Scale = 1:11.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) -0.00	2-7	>999	360	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Lumber DOL 1.15	BC 0.06	Vert(CT) -0.00	2-7	>999	240		
TCDL 10.0	Rep Stress Incr YES	WB 0.01	Horz(CT) -0.00	6	n/a	n/a		
BCLL 0.0 *	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.00	2-7	>999	240		
BCDL 10.0							Weight: 17 lb	FT = 20%

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

**REACTIONS.** All bearings 3-7-8.  
 (lb) - Max Horz 2=38(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 7, 2, 6  
 Max Grav All reactions 250 lb or less at joint(s) 7, 2, 2, 6

**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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 3-6-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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) 7, 2, 6.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 30, 2019

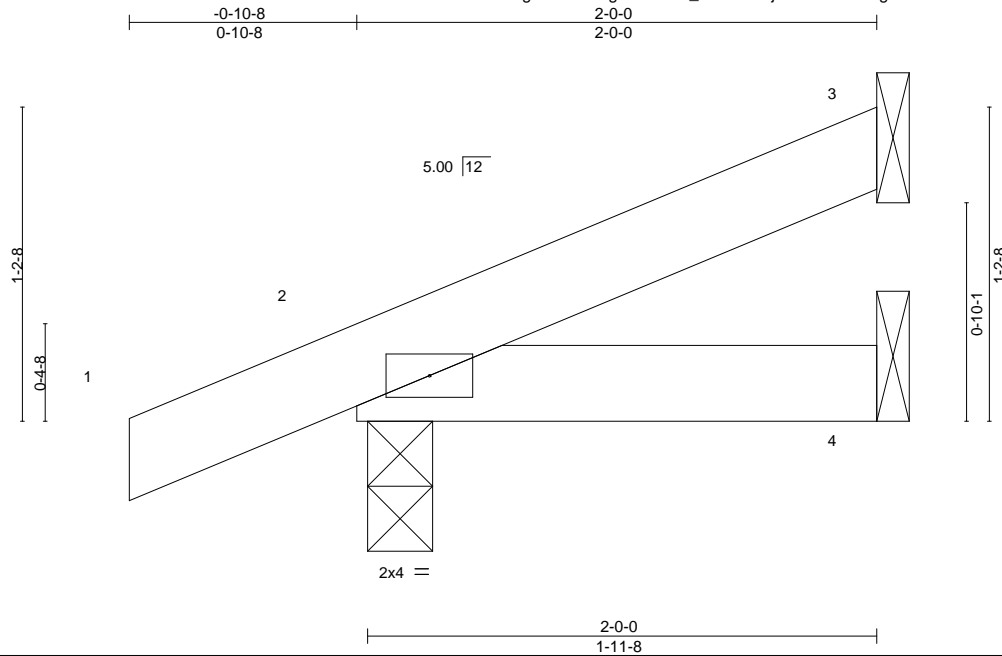


Job Ash_RF	Truss P1	Truss Type JACK-OPEN	Qty 4	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977402
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:37 2019 Page 1

ID:GgN1wbXHPg6COW?w\_rAWmsz1jWL-4Mridw9ZgNMmsW?WtLR8szqQ2R5j0b6Ne7?DC9zLrNi



Scale = 1:8.9

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.05	Vert(LL) -0.00	7	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT) -0.00	7	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Wind(LL) 0.00	7	>999	240		
BCDL 10.0	Code IRC2015/TPI2014						Weight: 8 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

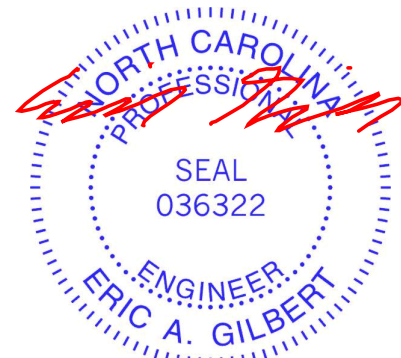
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=38/Mechanical, 2=125/0-3-0, 4=22/Mechanical  
Max Horz 2=26(LC 16)  
Max Uplift 3=8(LC 16), 2=22(LC 12), 4=5(LC 13)  
Max Grav 3=45(LC 2), 2=144(LC 2), 4=34(LC 7)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; cantilever left and right exposed ; 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.



April 30, 2019

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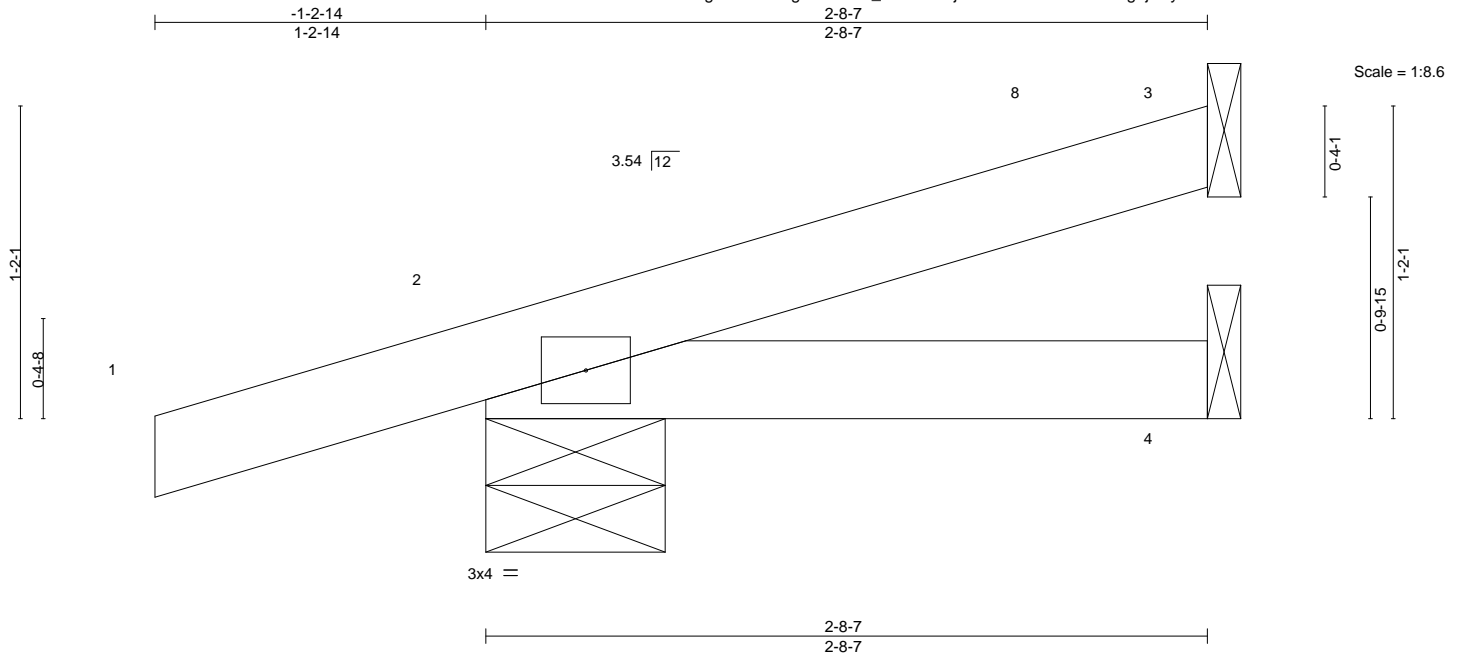
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job Ash_RF	Truss P2	Truss Type JACK-OPEN	Qty 2	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977403
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:38 2019 Page 1  
ID:GgN1wbXHPg6COW?w\_rAWmsz1jWL-YYP4rGABRhUdUgajR2yNPANZwrQLI2MWtnlmlbzLrNh



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) -0.00 7 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 4-7 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) 0.01 4-7 >999 240	Weight: 10 lb	FT = 20%

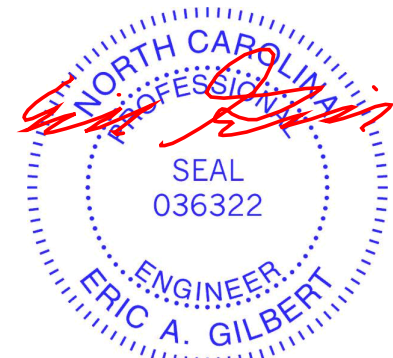
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=50/Mechanical, 2=171/0-8-1, 4=28/Mechanical  
 Max Horz 2=30(LC 12)  
 Max Uplift 3=11(LC 12), 2=50(LC 12), 4=6(LC 13)  
 Max Grav 3=59(LC 2), 2=197(LC 2), 4=44(LC 7)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3) zone; cantilever left and right 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.



April 30, 2019

**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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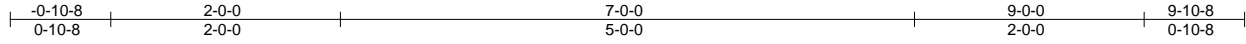
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lamco Custom Homes	E12977404
Ash_RF	P3	HIP GIRDER	1	1	Job Reference (optional)	

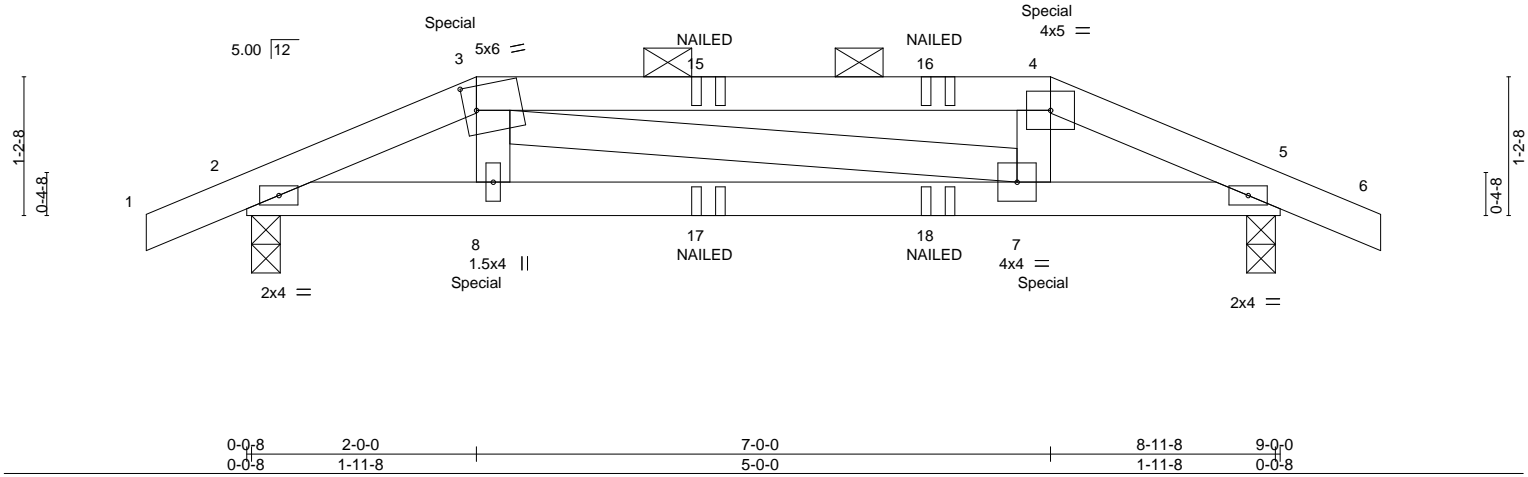
Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:40 2019 Page 1

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Scale = 1:20.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.60	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.34	Vert(LL) -0.03 7-8 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) -0.05 7-8 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.01 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) 0.02 7-8 >999 240	Weight: 39 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
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (5-3-11 max.); 3-4.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=400/0-3-0, 5=401/0-3-0  
 Max Horz 2=10(LC 58)  
 Max Uplift 2=-72(LC 8), 5=-72(LC 9)  
 Max Grav 2=428(LC 2), 5=431(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-847/135, 3-4=-803/131, 4-5=-850/135  
 BOT CHORD 2-8=-105/791, 7-8=-107/800, 5-7=-109/794

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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, 5.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 33 lb down and 32 lb up at 2-0-0, and 33 lb down and 32 lb up at 7-0-0 on top chord, and 16 lb down and 36 lb up at 2-0-0, and 16 lb down and 36 lb up at 6-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-51, 3-4=-61, 4-6=-51, 9-12=-20



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	Lamco Custom Homes	E12977404
Ash_RF	P3	HIP GIRDER	1	1	Job Reference (optional)	

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:40 2019 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 8=-9(B) 7=-9(B) 17=-4(B) 18=-4(B)

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

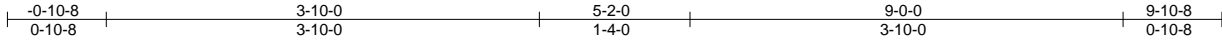
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



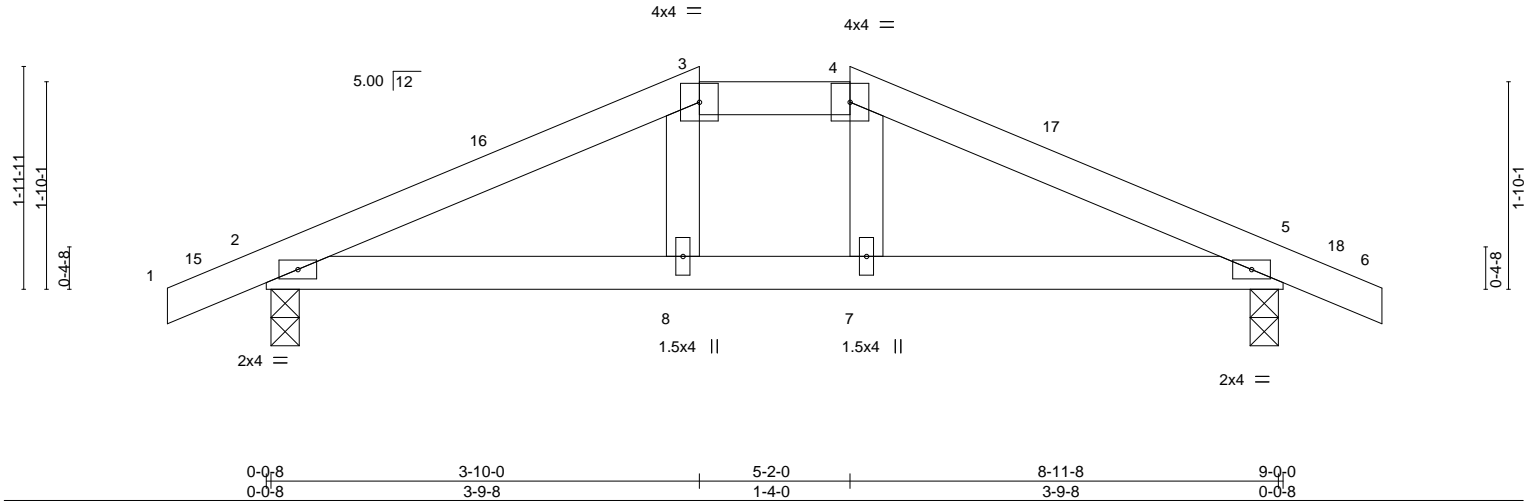
818 Soundside Road  
 Edenton, NC 27932

Job Ash_RF	Truss P4	Truss Type HIP	Qty 1	Ply 1	Lamco Custom Homes	E12977405
Builders FirstSource, Albemarle, NC 28001					Job Reference (optional)	

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:41 2019 Page 1  
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Scale = 1:20.4



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.18	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.23	Vert(LL) -0.01 8-11 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) -0.03 8-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) 0.02 8-11 >999 240	Weight: 35 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (6-0-0 max.); 3-4.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 2=370/0-3-0, 5=370/0-3-0  
 Max Horz 2=-16(LC 21)  
 Max Uplift 2=-57(LC 12), 5=-57(LC 13)  
 Max Grav 2=506(LC 39), 5=506(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-676/439, 3-4=-577/416, 4-5=-676/439  
 BOT CHORD 2-8=-346/583, 7-8=-339/577, 5-7=-347/583

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-0, Exterior(2) 3-10-0 to 9-4-15, Interior(1) 9-4-15 to 9-10-8 zone; cantilever left and right 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
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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, 5.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 30, 2019

Job Ash_RF	Truss P5	Truss Type MONOPITCH	Qty 4	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977406
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:42 2019 Page 1

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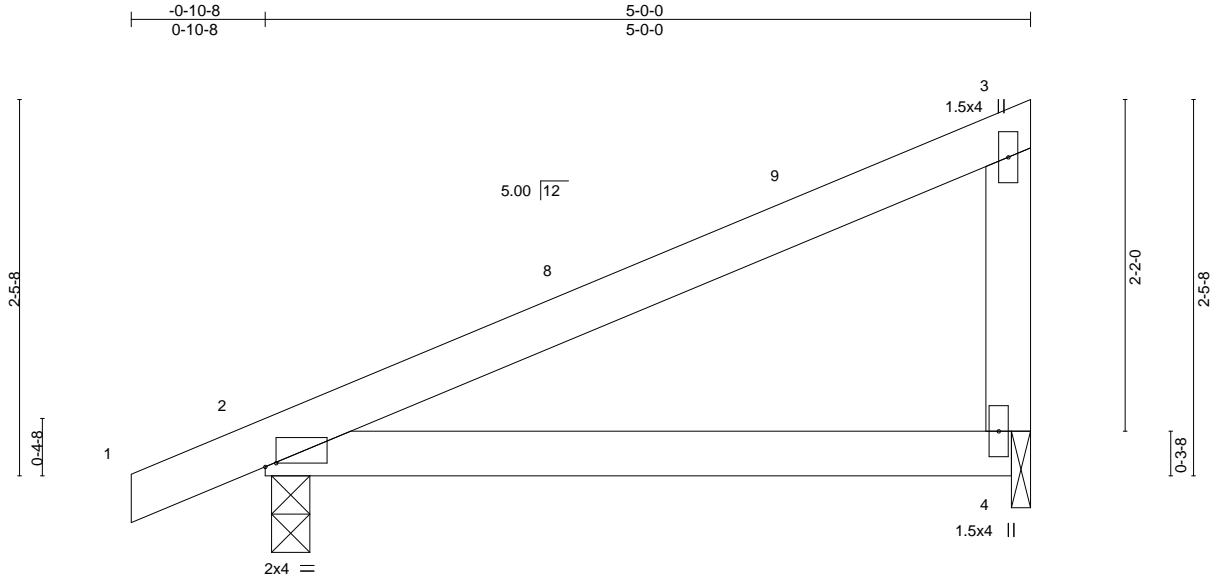


Plate Offsets (X,Y)-- [2:0-0-14,0-0-5]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.25	Vert(LL) -0.02 4-7 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.05 4-7 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Wind(LL) 0.05 4-7 >999 240	Weight: 20 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** (lb/size) 2=220/0-3-0, 4=168/0-1-8  
Max Horz 2=53(LC 16)  
Max Uplift 2=-28(LC 12), 4=-29(LC 13)  
Max Grav 2=251(LC 2), 4=189(LC 2)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-10-4 zone; cantilever left and right 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 10) 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.



April 30, 2019

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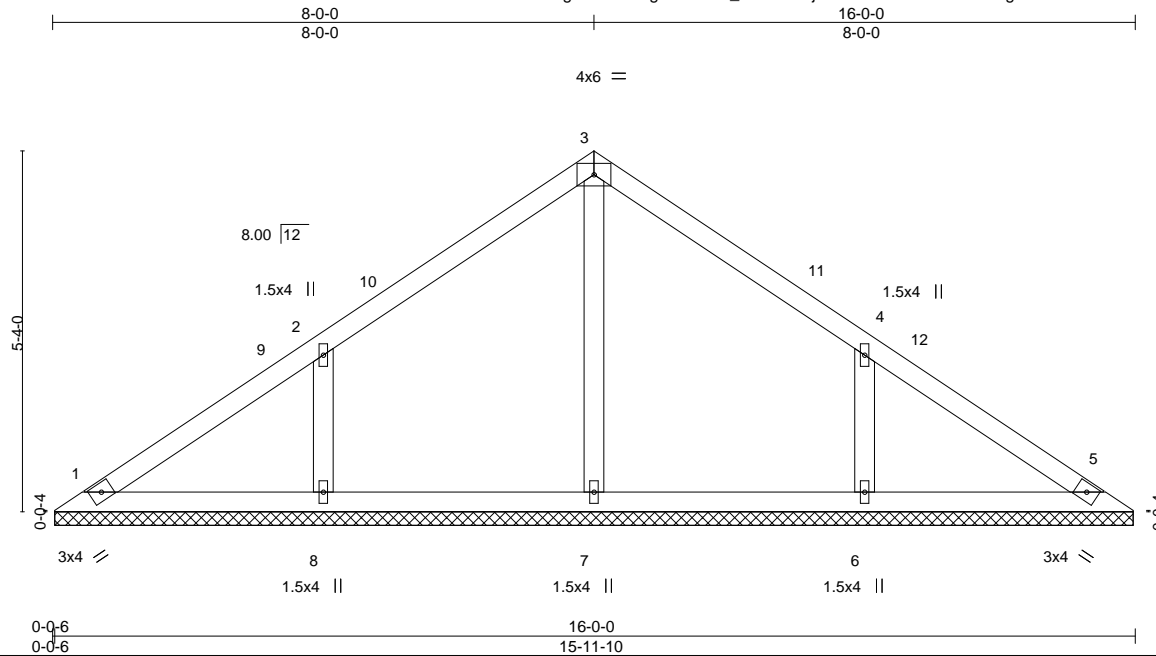
818 Soundside Road  
Edenton, NC 27932

Job Ash_RF	Truss V1	Truss Type Valley	Qty 1	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977407
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:43 2019 Page 1

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Scale = 1:34.1

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.21	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.12	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.09	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 64 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 15-11-4.  
 (lb) - Max Horz 1=85(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=359(LC 25), 6=358(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-269/122, 4-6=-269/122

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 8-0-0, Exterior(2) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 15-6-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 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) 8, 6.



April 30, 2019

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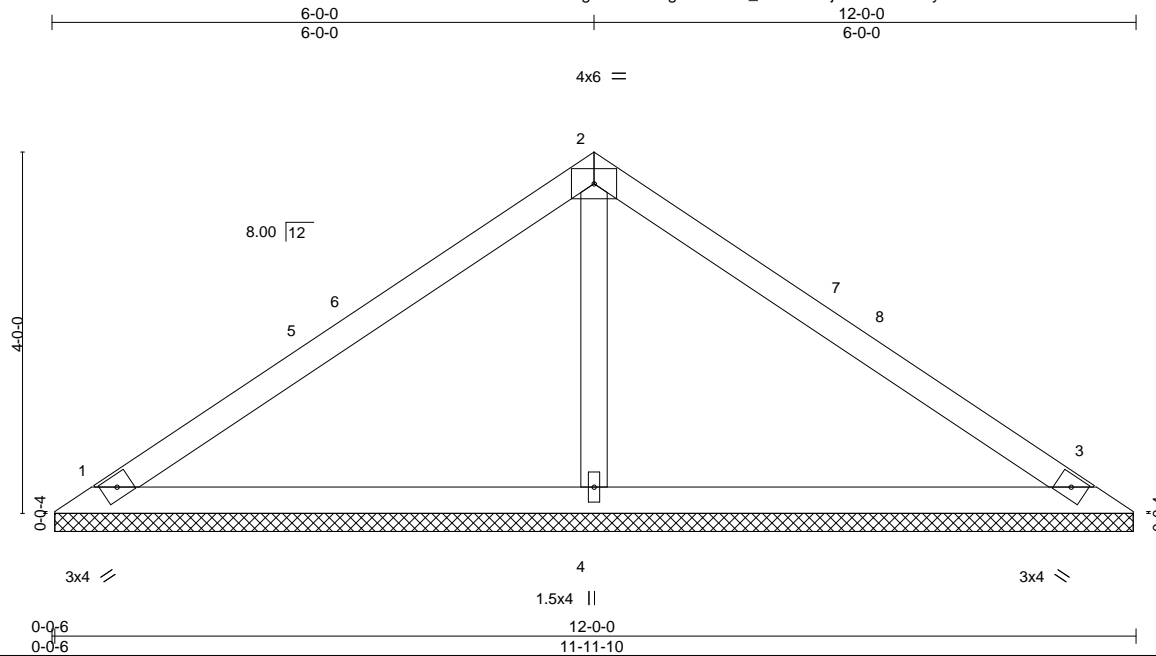
818 Soundside Road  
 Edenton, NC 27932

Job Ash_RF	Truss V2	Truss Type Valley	Qty 1	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977408
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8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:44 2019 Page 1

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Scale = 1:25.5

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.44	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.30	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.09	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 43 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.** (lb/size) 1=191/11-11-4, 3=191/11-11-4, 4=400/11-11-4  
 Max Horz 1=62(LC 11)  
 Max Uplift 1=-1(LC 14), 3=-7(LC 15)  
 Max Grav 1=217(LC 2), 3=217(LC 2), 4=448(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-4=-285/65

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 6-0-0, Exterior(2) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 11-6-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 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, 3.



April 30, 2019

**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.



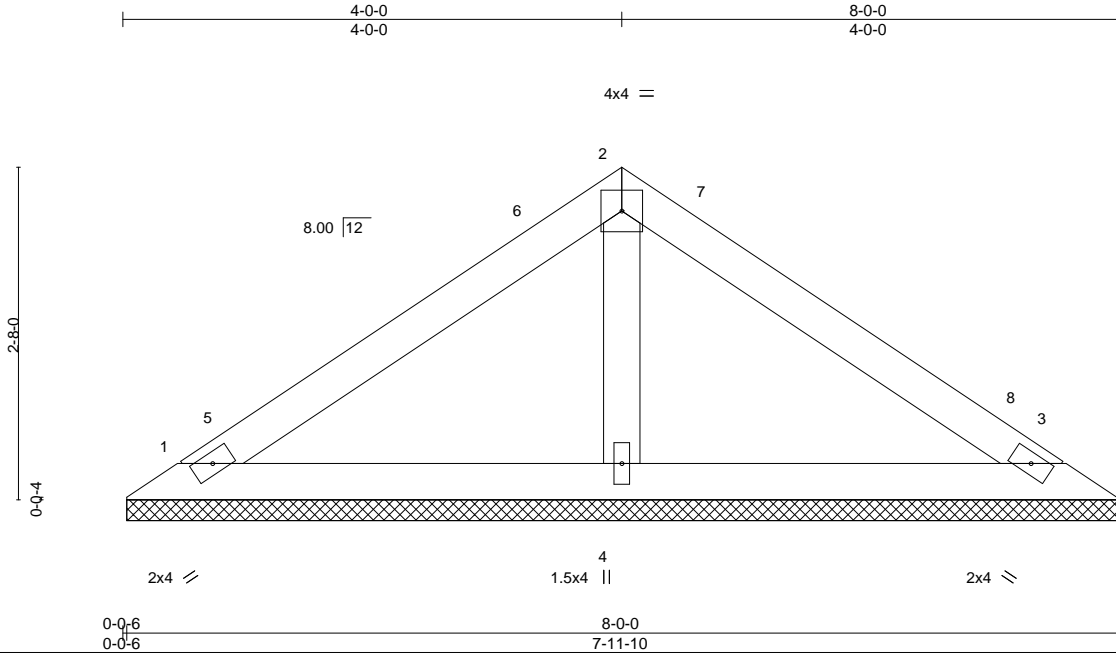
818 Soundside Road  
 Edenton, NC 27932



Job Ash_RF	Truss V3	Truss Type Valley	Qty 1	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977409
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:45 2019 Page 1  
ID:GgN1wbXHPg6COW?w\_rAWmsz1jWL-rvKjJfFaorMdqic3L0a0BfAIeGp5uCTYUNxeUhzLrNa



Scale = 1:18.5

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.17	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.12	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 27 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 1=121/7-11-4, 3=121/7-11-4, 4=255/7-11-4  
Max Horz 1=40(LC 10)  
Max Uplift 1=-1(LC 14), 3=-5(LC 15)  
Max Grav 1=139(LC 2), 3=139(LC 2), 4=286(LC 2)

**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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-0-0, Exterior(2) 4-0-0 to 7-0-0, Interior(1) 7-0-0 to 7-6-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 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, 3.



**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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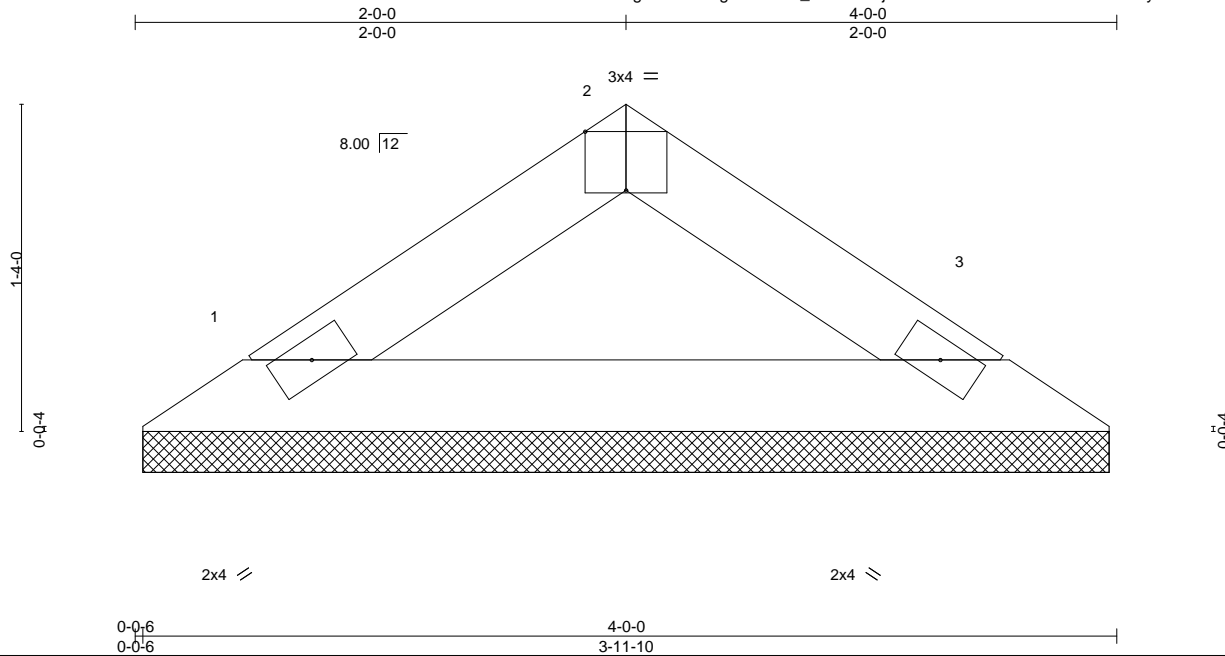


818 Soundside Road  
Edenton, NC 27932

Job Ash_RF	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lamco Custom Homes Job Reference (optional)	E12977410
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Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 13:29:46 2019 Page 1  
ID:GgN1wbXHPg6COW?w\_rAWmsz1jWL-J5u5W?GCZ8UURuBFvk5Fksiy049YdfKhj1hC17zLrNZ



Scale = 1:9.4

Plate Offsets (X,Y)-- [2:0-2:0,Edge]	0-0-6 0-0-6	4-0-0 3-11-10			
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.04	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.11	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014			Weight: 11 lb	FT = 20%

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

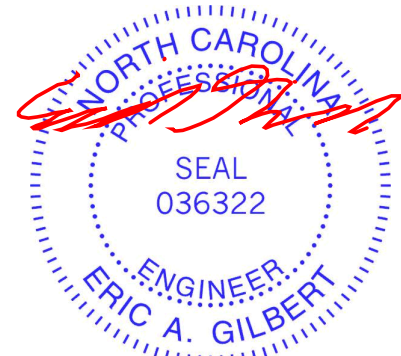
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=107/3-11-4, 3=107/3-11-4  
Max Horz 1=17(LC 12)  
Max Grav 1=121(LC 2), 3=121(LC 2)

**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=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 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.



April 30, 2019

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

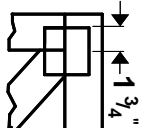
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



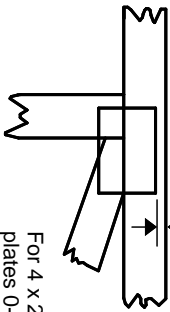
818 Soundside Road  
Edenton, NC 27932

# 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.

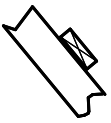
\* Plate location details available in **MITrak 20/20 software or upon request.**

## PLATE SIZE

4 X 4

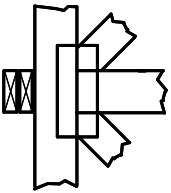
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



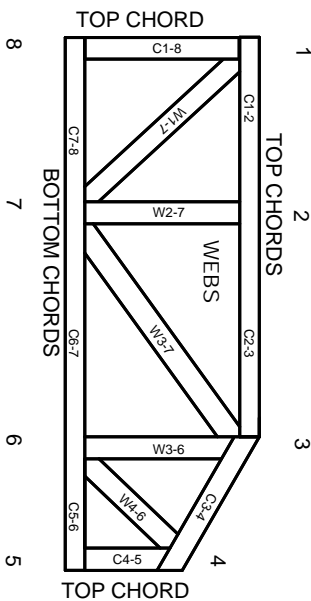
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: 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: 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.