Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 1625535_Jill_RF
Sturtz 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: E12549241 thru E12549290

My license renewal date for the state of North Carolina is   December 31, 2018.

North Carolina COA: C-0844

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ERIC A. GILBERT
ENGINEER

December 26,2018

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	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	A1	GABLE	1	1		E12549241
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001
8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:15 2018 Page 1
ID:4ImeeSjiwdRzCfsAnBfHyayIMmJ-sKLPAxqmVfu0lC4RFI9eB8XumKkYcav10p6fXHy6ke6
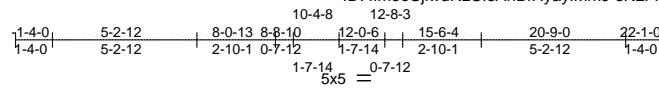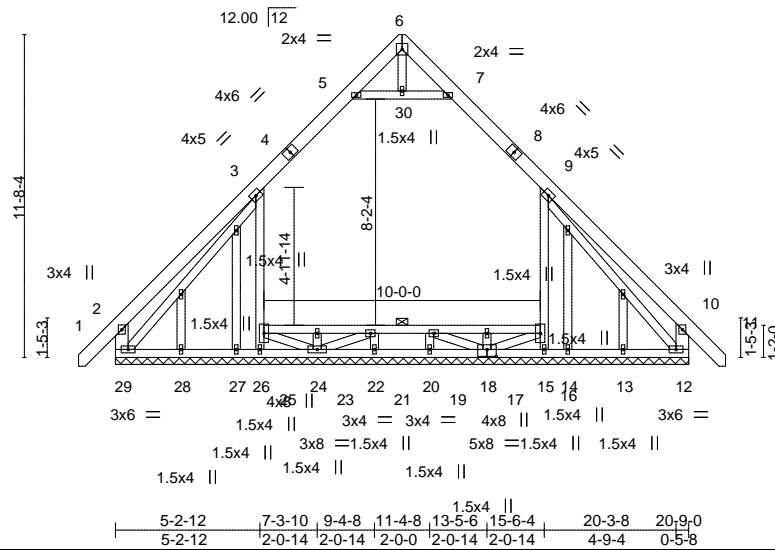
Scale = 1:83.4

Plate Offsets (X,Y)-- [18:0-4-0,0-3-0]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	10	n/r	120	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	0.00	10	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.36	Horz(TL)	0.01	12	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-S								
BCDL	10.0										Weight: 209 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.2
BOT CHORD   2x4 SP No.2 *Except*
  16-25: 2x4 SP No.3
WEBS   2x4 SP No.3 *Except*
  9-15,5-7,3-26: 2x4 SP No.2, 2-29,10-12: 2x6 SP No.2
OTHERS   2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
            except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
            10-0-0 oc bracing: 16-25

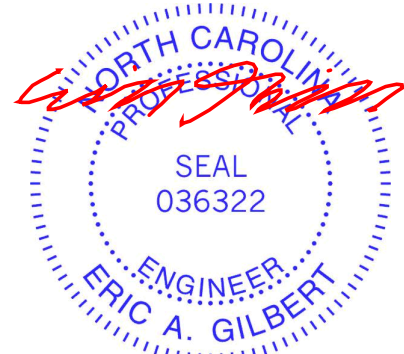REACTIONS.   All bearings 20-9-0.
  (lb) - Max Horz 29=231(LC 9)
          Max Uplift   All uplift 100 lb or less at joint(s) 29 except 15=-156(LC 11),
                26=-153(LC 10)
          Max Grav   All reactions 250 lb or less at joint(s) 27, 28, 14, 13 except 15=455(LC
                17), 26=455(LC 16), 12=520(LC 1), 22=264(LC 1), 24=274(LC 16), 20=264(LC 1),
                18=274(LC 17), 29=520(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-5=-410/104, 7-9=-410/104, 2-29=-311/249, 10-12=-311/250
BOT CHORD   28-29=0/259, 27-28=0/259, 26-27=0/259, 14-15=0/259, 13-14=0/259, 12-13=0/259
WEBS   15-16=-375/242, 9-16=-343/294, 25-26=-375/243, 3-25=-343/292, 3-29=-348/32,
            9-12=-347/28

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Corner(3)
   -1-2-9 to 1-9-7, Exterior(2) 1-9-7 to 10-4-8, Corner(3) 10-4-8 to 13-4-8, Exterior(2) 13-4-8 to 21-11-9 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-05; 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
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs
   non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
    will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Ceiling dead load (5.0 psf) on member(s). 3-5, 7-9, 5-30, 7-30; Wall dead load (5.0psf) on member(s).9-16, 3-25
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15, 26, and 29.
    This connection is for uplift only and does not consider lateral forces.

December 26, 2018

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

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

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	A1	GABLE	1	1		E12549241
					Job Reference (optional)	

NOTES-

13) Attic room checked for L/360 deflection.

Job	Truss	Truss Type		Qty	Ply	Sturtz Homes	
1625535_Jill_RF	A2	Common		4	1		E12549242
						Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:17 2018 Page 1
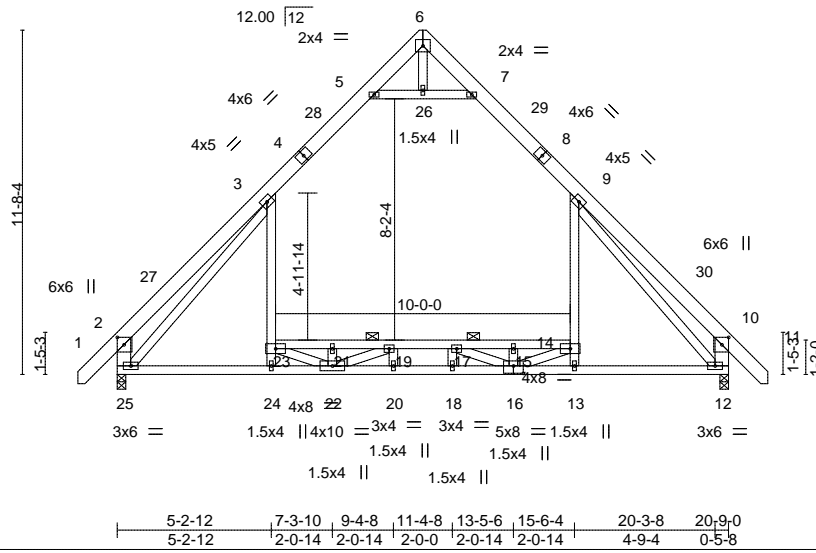ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-oiSAbds01G8k?VEpNjB6GZc8K7Ce4PDKT7bmcAy6ke4
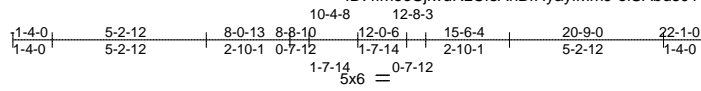
Scale = 1:78.2

Plate Offsets (X,Y)--   [2:0-3-0,0-2-12], [10:0-3-0,0-2-12], [16:0-4-0,0-3-0]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.23	17-19	>999	360		MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.99	Vert(TL)	-0.48	17-19	>502	240			
TCDL	10.0	Rep Stress Incr	YES	WB	0.69	Horz(TL)	0.06	12	n/a	n/a			
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MS		Wind(LL)	0.14	24	>999	240		Weight: 190 lb	FT = 20%
BCDL	10.0												

LUMBER-
TOP CHORD   2x6 SP DSS
BOT CHORD   2x4 SP No.2 *Except*
  14-23: 2x4 SP No.3
WEBS   2x4 SP No.3 *Except*
  9-13,5-7,3-24: 2x4 SP No.2, 2-25,10-12: 2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
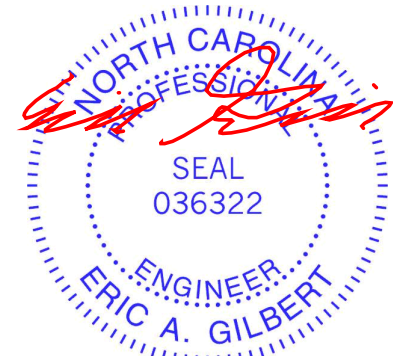 3-7-0 oc bracing: 14-23

REACTIONS.   (lb/size)   12=1569/0-3-8, 25=1569/0-3-8
  Max Horz 25=229(LC 9)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-964/158, 3-5=-891/95, 5-6=-5/460, 6-7=-5/460, 7-9=-891/95, 9-10=-964/158,
  2-25=-1007/206, 10-12=-1007/206
BOT CHORD   24-25=0/848, 22-24=-29/894, 20-22=0/2723, 18-20=0/2723, 16-18=0/2723, 13-16=0/894,
  12-13=0/848, 21-23=-1374/0, 19-21=-1374/0, 17-19=-1843/0, 15-17=-1374/0,
  14-15=-1374/0
WEBS   9-14=0/803, 5-26=-1514/120, 7-26=-1514/120, 3-23=0/803, 22-23=0/1373, 21-22=-255/0,
  19-22=-750/43, 16-17=-750/34, 15-16=-255/0, 14-16=0/1373, 3-25=-657/34,
  9-12=-657/33

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
  -1-2-9 to 1-9-7, Interior(1) 1-9-7 to 10-4-8, Exterior(2) 10-4-8 to 13-4-8, Interior(1) 13-4-8 to 21-11-9 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
3) TCLL: ASCE 7-05; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
  will fit between the bottom chord and any other members.
8) Ceiling dead load (5.0 psf) on member(s). 3-5, 7-9, 5-26, 7-26; Wall dead load (5.0psf) on member(s).9-14, 3-23
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 21-23, 19-21, 17-19, 15-17,
  14-15
10) Attic room checked for L/360 deflection.

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	A3	COMMON	3	1		E12549243
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:19 2018 Page 1
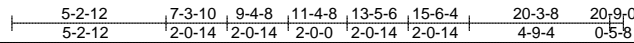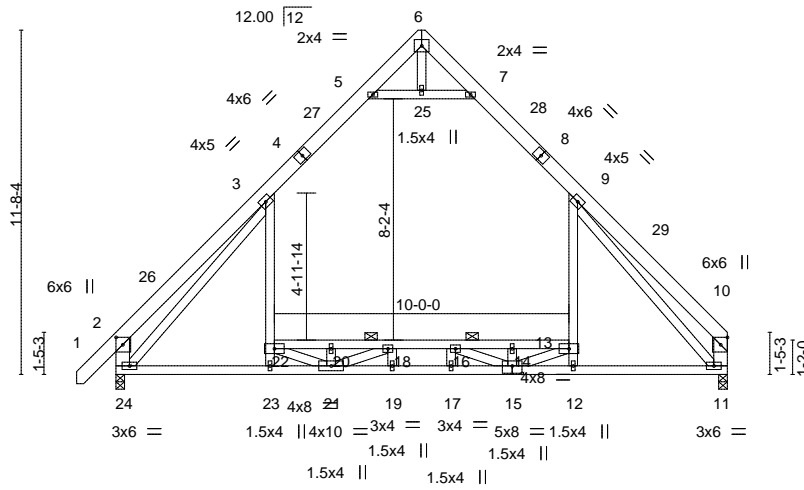ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-I5aw0JtHZuOSEpOCU7DaM_iUpxxBYG9dwR4tg2y6ke2
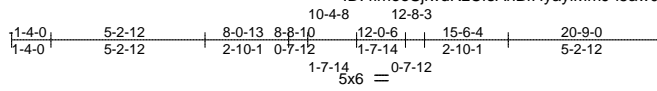
Scale = 1:78.2

Plate Offsets (X,Y)--   [2:0-3-0,0-2-12], [15:0-4-0,0-3-0]

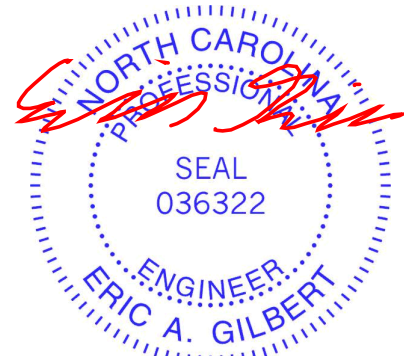| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.24	14-16	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(TL)	-0.49	16-18	>496	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(TL)	0.06	11	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MS		Wind(LL)	0.14	12	>999	240	Weight: 186 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x6 SP DSS
BOT CHORD   2x4 SP No.2
WEBS   2x4 SP No.3 *Except*
  9-12,5-7,3-23: 2x4 SP No.2, 2-24,10-11: 2x6 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
  4-2-0 oc bracing: 13-22

REACTIONS.   (lb/size)   11=1479/0-3-8, 24=1572/0-3-8
  Max Horz 24=254(LC 9)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-964/158, 3-5=-893/95, 5-6=-10/464, 6-7=-6/467, 7-9=-894/97, 9-10=-811/141,
  2-24=-1007/206, 10-11=-793/135
BOT CHORD   23-24=0/851, 21-23=-53/893, 19-21=0/2736, 17-19=0/2736, 15-17=0/2736, 12-15=0/916,
  11-12=0/855, 20-22=-1379/0, 18-20=-1379/0, 16-18=-1852/0, 14-16=-1405/0,
  13-14=-1405/0
WEBS   9-13=0/798, 5-25=-1528/131, 7-25=-1528/131, 3-22=0/808, 21-22=0/1380, 20-21=-256/0,
  18-21=-759/43, 15-16=-735/38, 14-15=-256/0, 13-15=0/1387, 3-24=-662/33,
  9-11=-813/0

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2) -1-2-9 to 1-9-7, Interior(1) 1-9-7 to 10-4-8, Exterior(2) 10-4-8 to 13-4-8, Interior(1) 13-4-8 to 20-6-4 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
3) TCLL: ASCE 7-05; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Ceiling dead load (5.0 psf) on member(s). 3-5, 7-9, 5-25, 7-25; Wall dead load (5.0psf) on member(s).9-13, 3-22
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 20-22, 18-20, 16-18, 14-16, 13-14
10) Attic room checked for L/360 deflection.

SEAL 036322
NORTH CAROLINA
PROFESSIONAL
ENGINEER
ERIC A. GILBERT

December 26,2018

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	B1	Monopitch	12	1		E12549244
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc.   Fri Dec 21 12:46:20 2018   Page 1

ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-DH8IDfuvKBWJszzO2rkpuBEg?LPyHwpm95qQCVy6ke1

-1-4-0   5-7-8

1-4-0   5-7-8

1.5x4 ||

Scale = 1:16.9

3

4.00 ⌐12

10

9

2-1-8

2-5-0

8

2-5-0

2

0-6-8

1

0-3-8

4

1.5x4 ||

3x4 =

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.04	4-7	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.31	Vert(TL)	-0.11	4-7	>609	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.01	2	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.03	4-7	>999	240	Weight: 22 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, except end verticals.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS.   (lb/size)   2=309/0-3-0, 4=209/0-1-8
             Max Horz   2=67(LC 8)
             Max Uplift   2=-41(LC 8), 4=-12(LC 8)

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

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 5-5-12 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) TCLL: ASCE 7-05; 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
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.

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ENGINEER
ERIC A. GILBERT

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	B1G	Roof Special Girder	1	1		E12549245
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:20 2018 Page 1
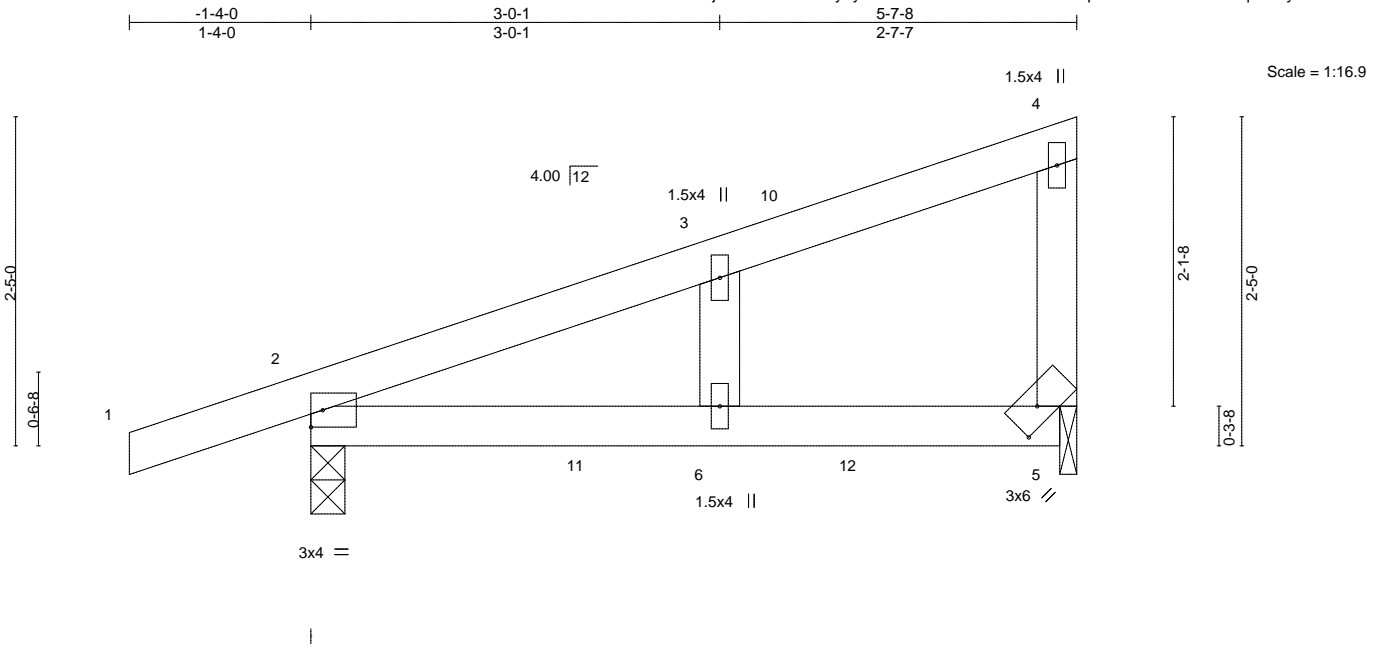ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-DH8lDfuvKBWJszzO2rkpuBEa0LJFHw8m95qQCVy6ke1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.11	6	>618	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.67	Vert(TL)	-0.26	6-9	>255	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.04	Horz(TL)	0.03	2	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MP		Wind(LL)	0.08	6	>858	240	Weight: 23 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-7-8 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		

REACTIONS. (lb/size)   2=474/0-3-0, 5=621/0-1-8
Max Horz 2=67(LC 6)
Max Uplift 2=-58(LC 6), 5=-52(LC 6)

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

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-05; 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) 5 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) 5.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 187 lb down and 19 lb up at 2-0-12, and 189 lb down and 20 lb up at 4-0-12, and 201 lb down and 17 lb up at 5-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 5-7=-20
Concentrated Loads (lb)
Vert: 5=-201 11=-186 12=-189

December 26,2018

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

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
						E12549246
1625535_Jill_RF	B2	Monopitch	4	1		
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:21 2018 Page 1

ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-hUihR?vX5VfAT7YacYG2RPnvnloF0N2vOlZzlxy6ke0

-1-4-0 | 3-7-8
1-4-0 | 3-7-8

Scale = 1:11.6

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.01	4-7	>999	360		MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	-0.02	4-7	>999	240			
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	2	n/a	n/a			
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MP		Wind(LL)	0.01	4-7	>999	240		Weight: 15 lb	FT = 20%
BCDL	10.0												

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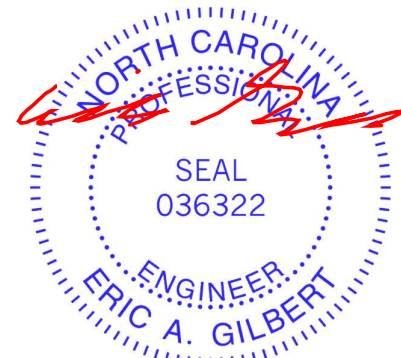BOT CHORD   2x4 SP No.2
WEBS   2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-7-8 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=234/0-3-0, 4=124/0-1-8
Max Horz 2=49(LC 8)
Max Uplift 2=-44(LC 8), 4=-4(LC 8)

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

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-5-12 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) TCLL: ASCE 7-05; 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

-1-4-0   4-0-0   5-7-8
1-4-0   4-0-0   1-7-8

4x4

Scale = 1:15.2

1.5x4

3

4

4.00 [12]

10

1-10-8

2

0-6-8

1

1-7-0

1-10-8

0-3-8

6

5

1.5x4

1.5x4

3x4

2-9-1   4-0-0   5-7-8
2-9-1   1-2-15   1-7-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.06	6-9	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.57	Vert(TL)	-0.16	6-9	>405	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(TL)	0.02	2	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.06	6-9	>999	240	Weight: 23 lb	FT = 20%
BCDL	10.0											

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

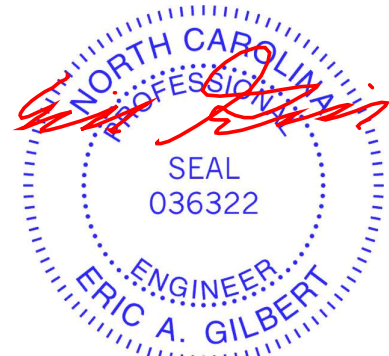**BRACING-**
TOP CHORD   Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS. (lb/size)   2=309/0-3-0, 5=209/0-1-8
Max Horz 2=54(LC 8)
Max Uplift 2=-45(LC 8), 5=-8(LC 8)
Max Grav 2=386(LC 16), 5=209(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 4-0-0, Exterior(2) 4-0-0 to 5-5-12 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) 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.
10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This
    connection is for uplift only and does not consider lateral forces.
12) 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.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

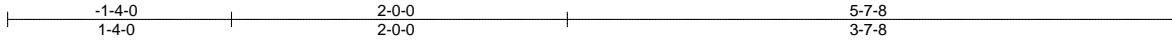North Carolina Professional Engineer Seal
SEAL
036322
Eric A. Gilbert
Engineer

December 26,2018

ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
						E12549248
1625535_Jill_RF	B4	Half Hip Girder	2	1		
					Job Reference (optional)	

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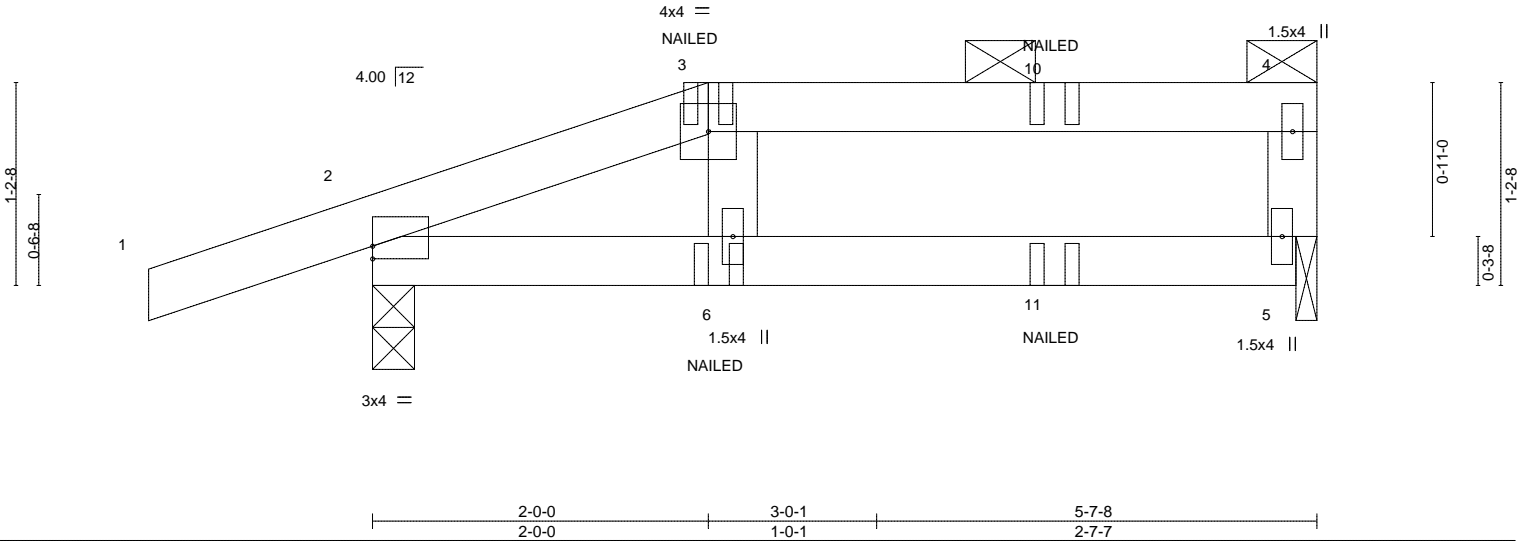ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-dsqRsgwnd6vujQizjzIWWqsDbYKKUH1Cr224pqy6ke_

Scale = 1:13.7

LOADING (psf)

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.06	5-6	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.65	Vert(TL)	-0.18	5-6	>370	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.03	Horz(TL)	0.02	2	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MP		Wind(LL)	0.04	5-6	>999	240	Weight: 21 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 or 5-7-8 oc purlins,
                     except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   2=306/0-3-0, 5=206/0-1-8
               Max Horz   2=36(LC 4)
               Max Uplift   2=-49(LC 4), 5=-6(LC 5)
               Max Grav   2=306(LC 1), 5=207(LC 2)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) 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.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)   Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
    Uniform Loads (plf)
        Vert: 1-3=-60, 3-4=-60, 5-7=-20
    Concentrated Loads (lb)
        Vert: 6=3(B) 11=3(B)

December 26,2018

ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	B5	Jack-Open	4	1		E12549249
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:23 2018 Page 1
ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-dsqRsgwnd6vujQizjzIWWqsGqYUvUHYCr224pqy6ke_

-1-4-0   2-0-0
1-4-0   2-0-0

Scale = 1:8.9

4.00 ⌐12

2-0-0
2-0-0

3x4 =

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	7	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	-0.00	4-7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	2	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MP		Wind(LL)	-0.00	7	>999	240	Weight: 8 lb	FT = 20%
BCDL	10.0											

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=40/Mechanical, 2=186/0-3-0, 4=13/Mechanical
          Max Horz 2=36(LC 6)
          Max Uplift 3=-8(LC 6), 2=-50(LC 6)
          Max Grav 3=40(LC 1), 2=186(LC 1), 4=33(LC 3)

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

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 1-11-14 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) TCLL: ASCE 7-05; 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) 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.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

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December 26,2018

ENGINEERING BY
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	C1	GABLE	1	1		E12549250
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

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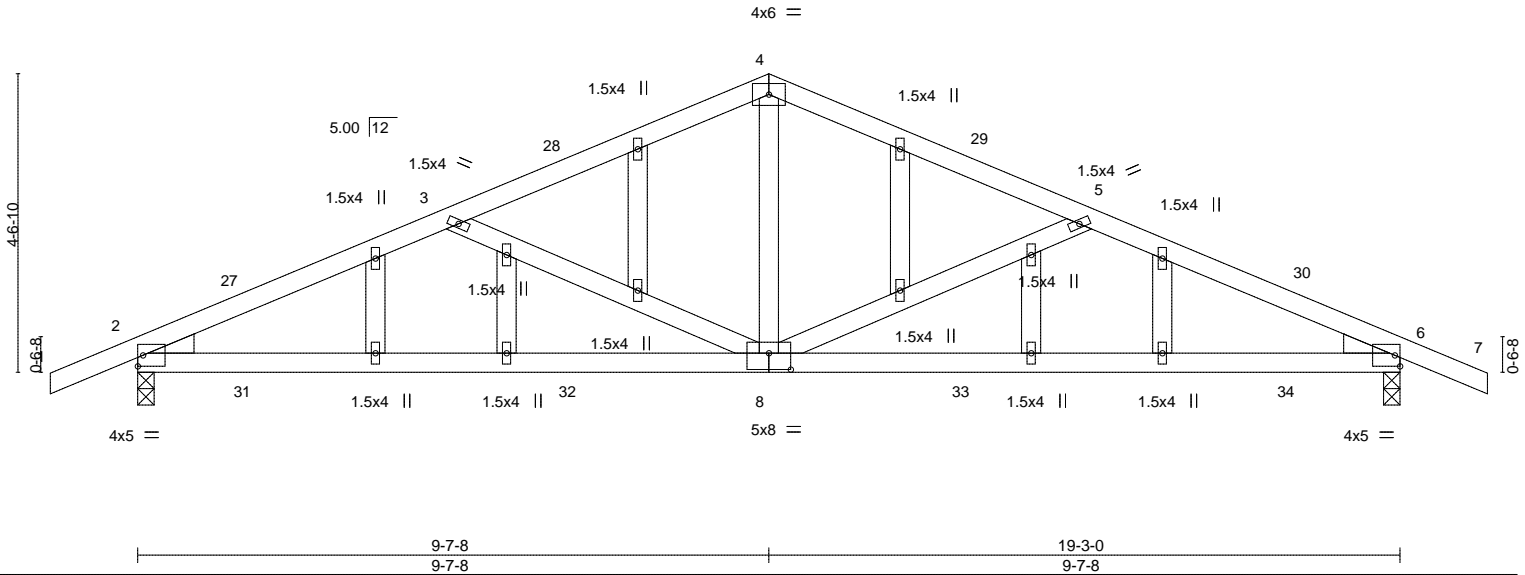ID:4ImeeSjiwdRzCfsAnBfHyayIMmJ-ZFxBGMy18k9cykrMrOK_bFyYmM_Cy8sVJMXBtiy6kdy
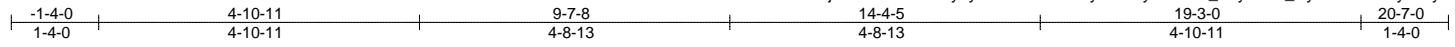
Scale = 1:35.1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.13	8-23	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.82	Vert(TL)	-0.33	8-23	>691	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(TL)	0.04	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.24	8-23	>967	240	Weight: 103 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.2
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3
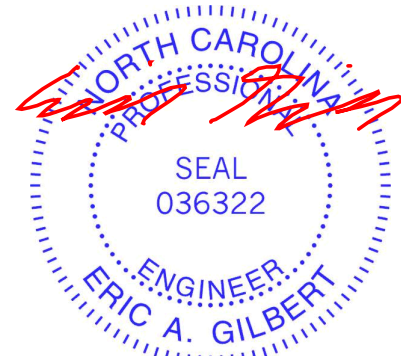
BRACING-
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS. (lb/size)   2=850/0-3-0, 6=850/0-3-0
            Max Horz 2=56(LC 10)
            Max Uplift 2=-237(LC 10), 6=-237(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1382/1070, 3-4=-1046/918, 4-5=-1046/918, 5-6=-1382/1070
BOT CHORD   2-8=-913/1223, 6-8=-921/1223
WEBS   4-8=-493/520, 5-8=-367/285, 3-8=-367/285

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Corner(3)
   -1-4-0 to 1-8-0, Exterior(2) 1-8-0 to 9-7-8, Corner(3) 9-7-8 to 12-7-8, Exterior(2) 12-7-8 to 20-7-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-05; 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
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs
   non-concurrent with other live loads.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This
    connection is for uplift only and does not consider lateral forces.
11) 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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December 26,2018

ENGINEERING BY
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	C2	COMMON	3	1		E12549251
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001
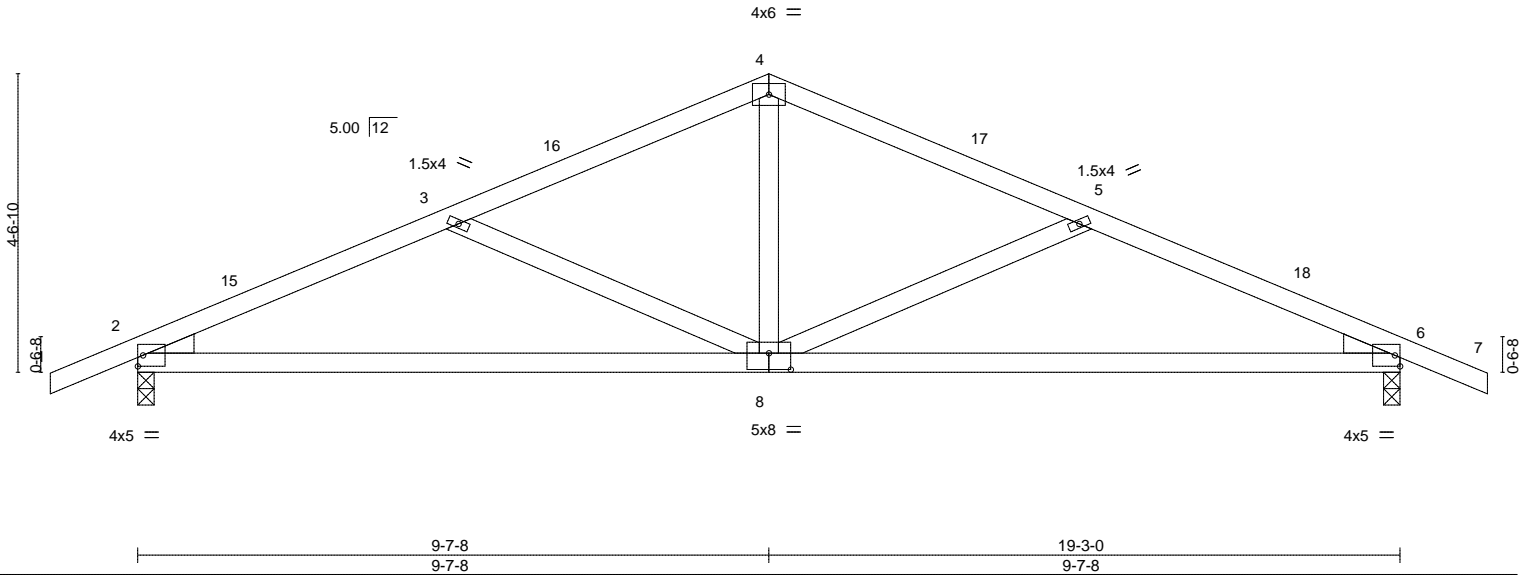8.220 s Nov 16 2018 MiTek Industries, Inc.   Fri Dec 21 12:46:26 2018   Page 1
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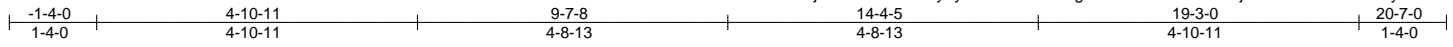
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1-4-0	4-10-11	4-8-13	4-8-13	4-10-11	1-4-0

Scale = 1:35.1

4x6 =

5.00 12

1.5x4 =

1.5x4 =

4x5 =

5x8 =

4x5 =

	9-7-8	19-3-0
	9-7-8	9-7-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.13	8-11	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.82	Vert(TL)	-0.33	8-11	>691	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(TL)	0.04	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.22	8-14	>999	240	Weight: 87 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.
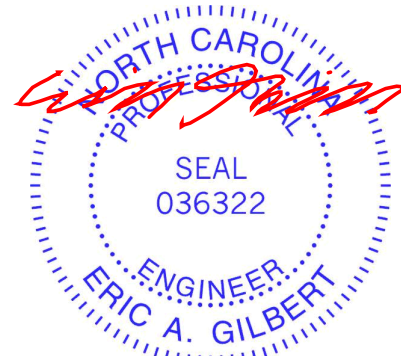
REACTIONS.   (lb/size)   2=850/0-3-0, 6=850/0-3-0
             Max Horz 2=56(LC 10)
             Max Uplift 2=-237(LC 10), 6=-237(LC 11)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1382/889, 3-4=-1046/790, 4-5=-1046/790, 5-6=-1382/889
BOT CHORD   2-8=-759/1223, 6-8=-776/1223
WEBS   4-8=-488/520, 5-8=-367/193, 3-8=-367/193

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 9-7-8, Exterior(2) 9-7-8 to 12-7-8, Interior(1) 12-7-8 to 20-7-0 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
3) TCLL: ASCE 7-05; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This
   connection is for uplift only and does not consider lateral forces.
9) 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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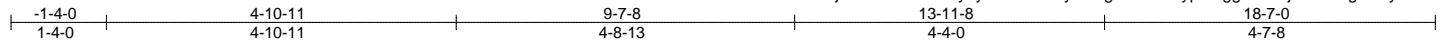PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	E12549252
1625535_Jill_RF	C3	COMMON	3	1	Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:27 2018 Page 1
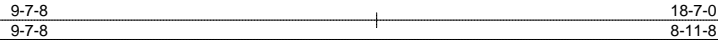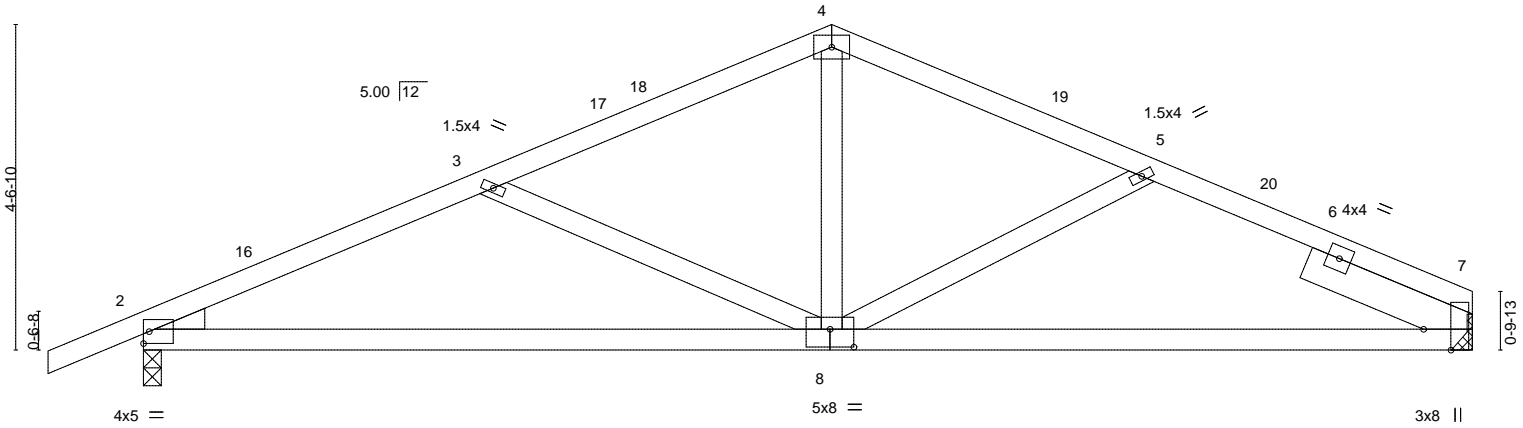ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-We3yh2zIgLPJC2?kypNSgg1ue9hjQ2Komg0Ixby6kdw

Scale: 3/8"=1'

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

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.14	8-15	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.75	Vert(TL)	-0.36	8-15	>611	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(TL)	0.04	7	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.24	8-15	>918	240	Weight: 88 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x6 SP No.2 2-6-0

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

REACTIONS. (lb/size) 7=740/Mechanical, 2=826/0-3-0
Max Horz 2=67(LC 10)
Max Uplift 7=-187(LC 11), 2=-232(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1326/865, 3-4=-985/751, 4-5=-973/758, 5-7=-1167/814
BOT CHORD 2-8=-777/1172, 7-8=-698/1047
WEBS 3-8=-371/200, 4-8=-466/475, 5-8=-262/125

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 9-7-8, Exterior(2) 9-7-8 to 12-7-8, Interior(1) 12-7-8 to 18-7-0 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
3) TCLL: ASCE 7-05; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   7=187, 2=232.
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.

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December 26,2018

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	E12549253
1625535_Jill_RF	D1	Jack-Open	8	1	Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:27 2018 Page 1
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-1-4-0   2-0-0
1-4-0   2-0-0

Scale = 1:10.6

6.00 ⌐12

3x4 =

2-0-0
2-0-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	7	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	-0.00	4-7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MP		Wind(LL)	-0.00	7	>999	240	Weight: 9 lb	FT = 20%
BCDL	10.0											

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=40/Mechanical, 2=186/0-3-8, 4=12/Mechanical
Max Horz 2=54(LC 10)
Max Uplift 3=-11(LC 10), 2=-47(LC 10)
Max Grav 3=40(LC 1), 2=186(LC 1), 4=33(LC 5)

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

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 1-11-14 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) TCLL: ASCE 7-05; 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.

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Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	E12549254
1625535_Jill_RF	D2	Half Hip Girder	2	1		
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:28 2018 Page 1
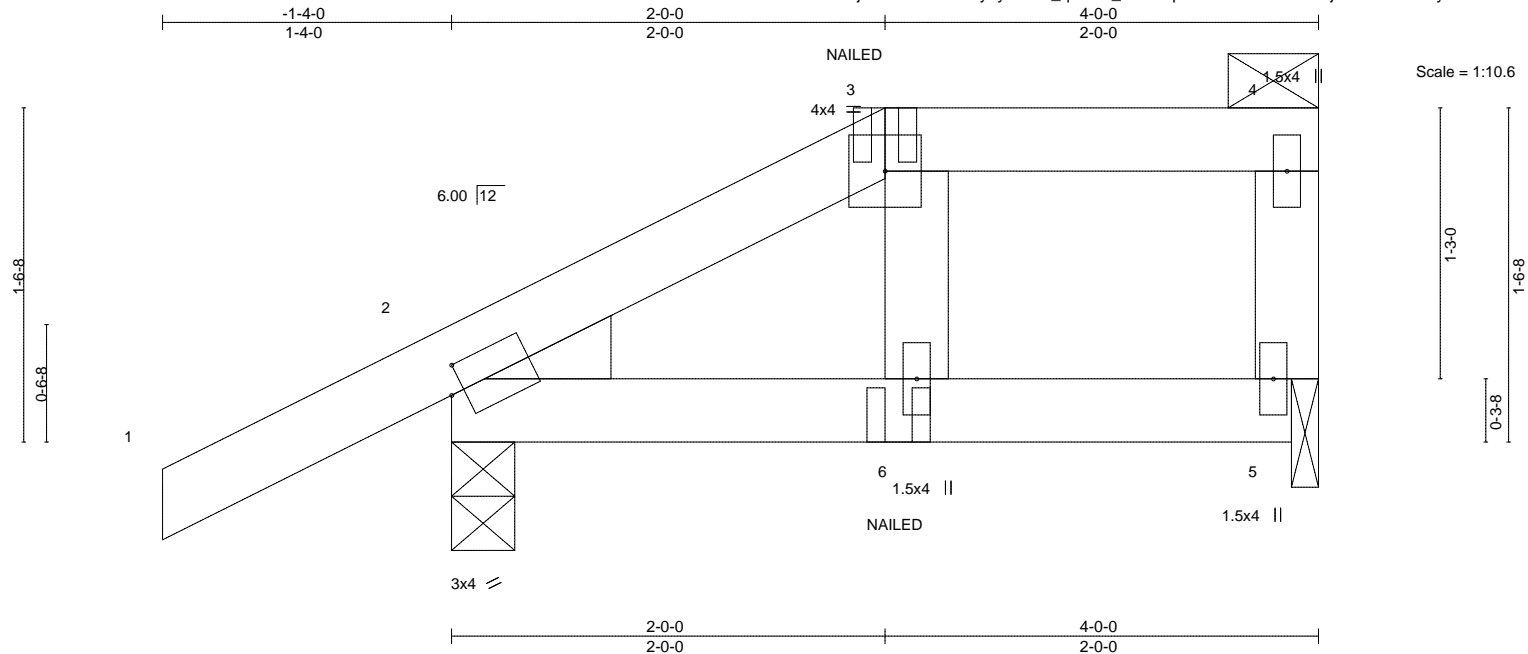ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-_qdKvO_wRfXApBawWWuhDta4EZ8j9YRx?KmrU1y6kdv

NAILED

6.00 | 12

Scale = 1:10.6

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.02	6	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.32	Vert(TL)	-0.04	6	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.02	Horz(TL)	0.01	2	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MP		Wind(LL)	0.01	6	>999	240	Weight: 18 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (lb/size)   2=247/0-3-8, 5=139/0-1-8
                Max Horz 2=55(LC 8)
                Max Uplift 2=-43(LC 8), 5=-4(LC 7)
                Max Grav 2=318(LC 14), 5=170(LC 13)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) 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.
10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
15) 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

December 26,2018

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Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	D2	Half Hip Girder	2	1		E12549254
					Job Reference (optional)	

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
     Uniform Loads (plf)
         Vert: 1-3=-60, 3-4=-60, 5-7=-20
     Concentrated Loads (lb)
         Vert: 6=3(B)

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
						E12549255
1625535_Jill_RF	D3	Jack-Open	13	1		
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:31 2018 Page 1
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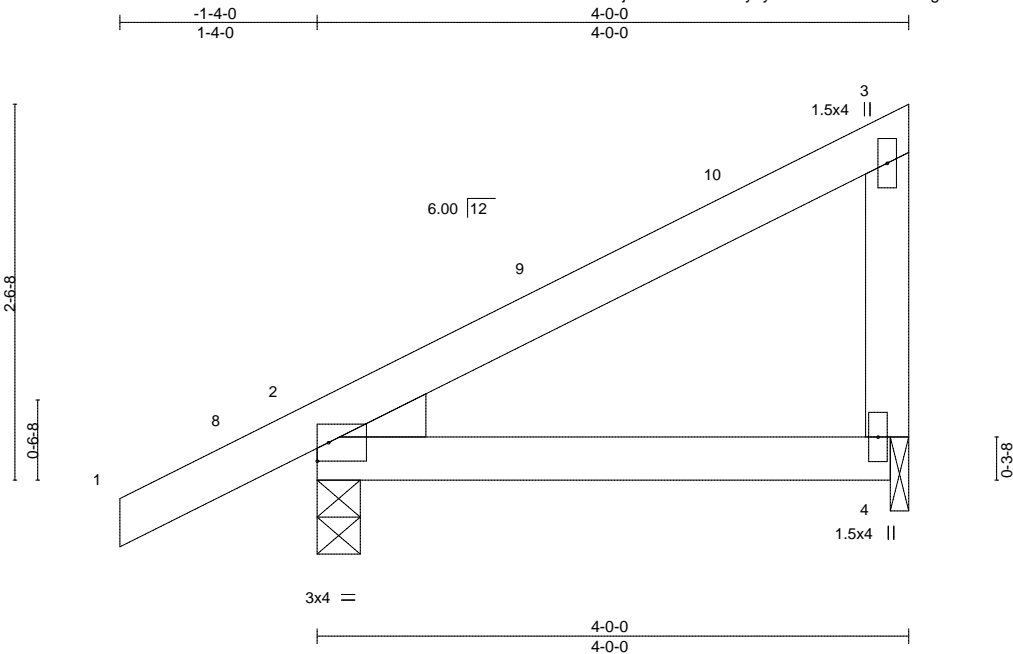
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1-4-0   4-0-0

Scale = 1:15.6

3
1.5x4 ||

6.00 |12

10

9

2-6-8

0-6-8

2

8

0-3-8

1

4
1.5x4 ||

3x4 =

4-0-0
4-0-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	4-7	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	-0.03	4-7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.00	2	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MP		Wind(LL)	0.01	4-7	>999	240	Weight: 19 lb	FT = 20%
BCDL	10.0											

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

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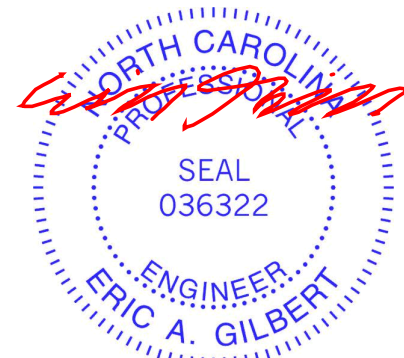TOP CHORD   Structural wood sheathing directly applied or 4-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   2=248/0-3-8, 4=140/0-1-8
             Max Horz 2=79(LC 10)
             Max Uplift 2=-36(LC 10), 4=-13(LC 10)

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

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-10-4 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) TCLL: ASCE 7-05; 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.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This
    connection is for uplift only and does not consider lateral forces.

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December 26,2018

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Edenton, NC 27932

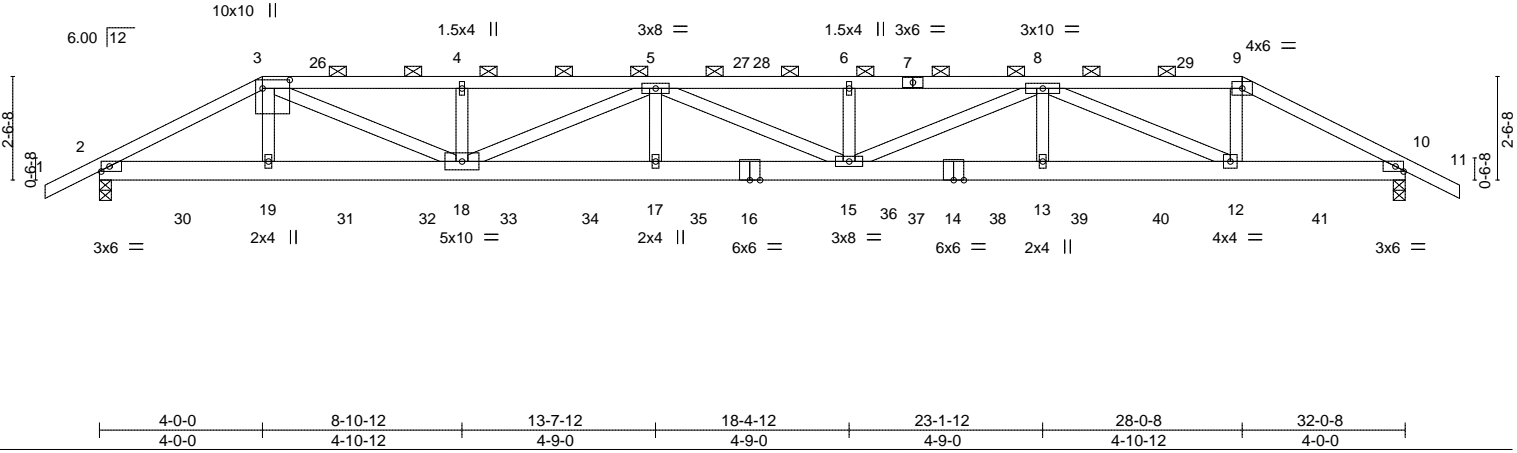| Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	E1	HIP GIRDER	1	2	Job Reference (optional)	E12549256

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:34 2018 Page 1
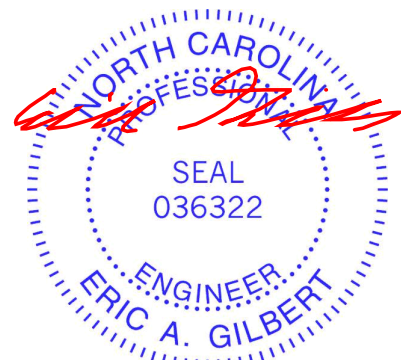ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-p__b9R3h1VHKX614sn?5S8p_a_0UZ36qNGD9hhy6kdp

Scale = 1:56.5

Plate Offsets (X,Y)--   [2:0-2-7,0-1-8], [3:0-2-8,0-8-0], [10:0-2-7,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.42	15-17	>917	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	1.00	Vert(TL)	-0.87	15-17	>440	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.78	Horz(TL)	0.12	10	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MS		Wind(LL)	0.25	15-17	>999	240	Weight: 361 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 5-10-4 oc purlins,
             except
             2-0-0 oc purlins (3-7-8 max.): 3-9.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size) 2=2261/0-3-8, 10=2264/0-3-8
             Max Horz 2=-40(LC 24)
             Max Uplift 2=-189(LC 7), 10=-189(LC 6)
             Max Grav 2=2377(LC 17), 10=2380(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-4514/403, 3-4=-7458/685, 4-5=-7458/685, 5-6=-9076/828, 6-8=-9076/828,
             8-9=-4087/373, 9-10=-4474/400
BOT CHORD   2-19=-334/4004, 18-19=-334/4021, 17-18=-808/9193, 15-17=-808/9193, 13-15=-647/7554,
             12-13=-647/7554, 10-12=-317/3968
WEBS   3-19=0/318, 3-18=-372/3758, 4-18=-438/77, 5-18=-1908/188, 5-17=-11/445,
             6-15=-374/68, 8-15=-163/1672, 8-13=-11/442, 8-12=-3810/377, 9-12=-134/1779

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to
   ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise); cantilever left and
   right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-05; 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.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs
   non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
    will fit between the bottom chord and any other members.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This
    connection is for uplift only and does not consider lateral forces.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

December 26,2018

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	E1	HIP GIRDER	1	**2**		E12549256
					Job Reference (optional)	

NOTES-

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 150 lb down and 16 lb up at 2-0-12, 120 lb down and 25 lb up at 4-0-12, 120 lb down and 25 lb up at 6-0-12, 120 lb down and 25 lb up at 8-0-12, 120 lb down and 25 lb up at 10-0-12, 120 lb down and 25 lb up at 12-0-12, 120 lb down and 25 lb up at 14-0-12, 120 lb down and 25 lb up at 16-0-12, 120 lb down and 25 lb up at 18-0-12, 120 lb down and 25 lb up at 20-0-12, 120 lb down and 25 lb up at 22-0-12, 120 lb down and 25 lb up at 24-0-12, 120 lb down and 25 lb up at 26-0-12, and 120 lb down and 25 lb up at 27-11-12, and 150 lb down and 16 lb up at 29-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
    Uniform Loads (plf)
        Vert: 1-3=-60, 3-9=-60, 9-11=-60, 20-23=-20
    Concentrated Loads (lb)
        Vert: 16=-120 19=-120 12=-120 30=-119 31=-120 32=-120 33=-120 34=-120 35=-120 36=-120 37=-120 38=-120 39=-120 40=-120 41=-119

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Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:38 2018 Page 1
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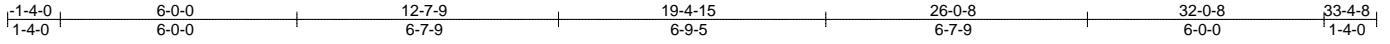
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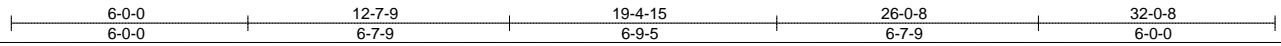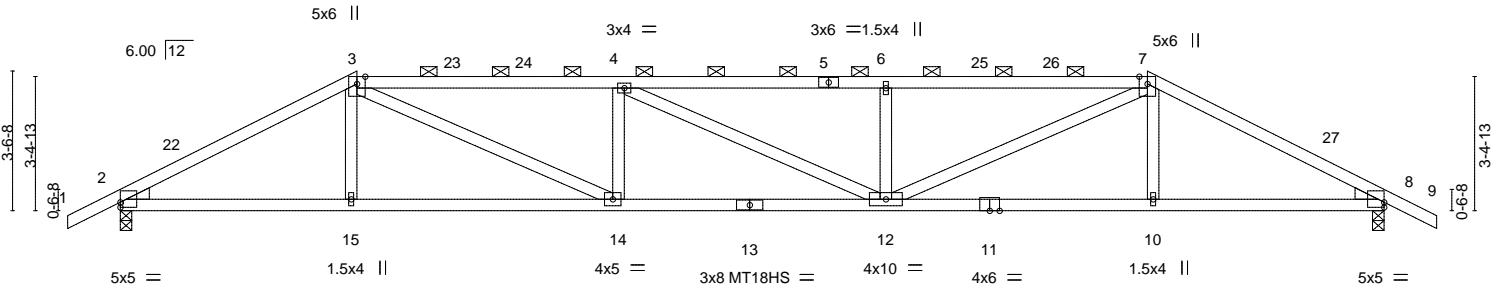
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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.31	12-14	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.98	Vert(TL)	-0.65	12-14	>591	240	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.77	Horz(TL)	0.16	8	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.13	12-14	>999	240	Weight: 153 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 *Except*	TOP CHORD	Structural wood sheathing directly applied, except
	3-5,5-7: 2x4 SP 2400F 2.0E		2-0-0 oc purlins (3-4-12 max.): 3-7.
BOT CHORD	2x4 SP No.1 *Except*	BOT CHORD	Rigid ceiling directly applied.
	11-13: 2x4 SP No.2		
WEBS	2x4 SP No.3		
WEDGE			
Left: 2x4 SP No.3, Right: 2x4 SP No.3			

REACTIONS.   (lb/size)   2=1362/0-3-8, 8=1362/0-3-8
              Max Horz 2=-49(LC 11)
              Max Grav 2=1411(LC 19), 8=1411(LC 19)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2657/323, 3-4=-4025/461, 4-6=-4025/461, 6-7=-4028/462, 7-8=-2657/322
BOT CHORD   2-15=-191/2343, 14-15=-194/2340, 12-14=-333/4022, 10-12=-207/2339, 8-10=-203/2342
WEBS   3-14=-180/1864, 4-14=-656/159, 6-12=-658/160, 7-12=-180/1867

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-0-0, Exterior(2) 6-0-0 to 10-2-15, Interior(1) 10-2-15 to 26-0-8, Exterior(2) 26-0-8 to 30-3-7,
   Interior(1) 30-3-7 to 33-4-8 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
10) 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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORTH CAROLINA
PROFESSIONAL
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036322
ERIC A. GILBERT
ENGINEER

December 26,2018

ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	E3	Hip	1	1		E12549258
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:39 2018 Page 1
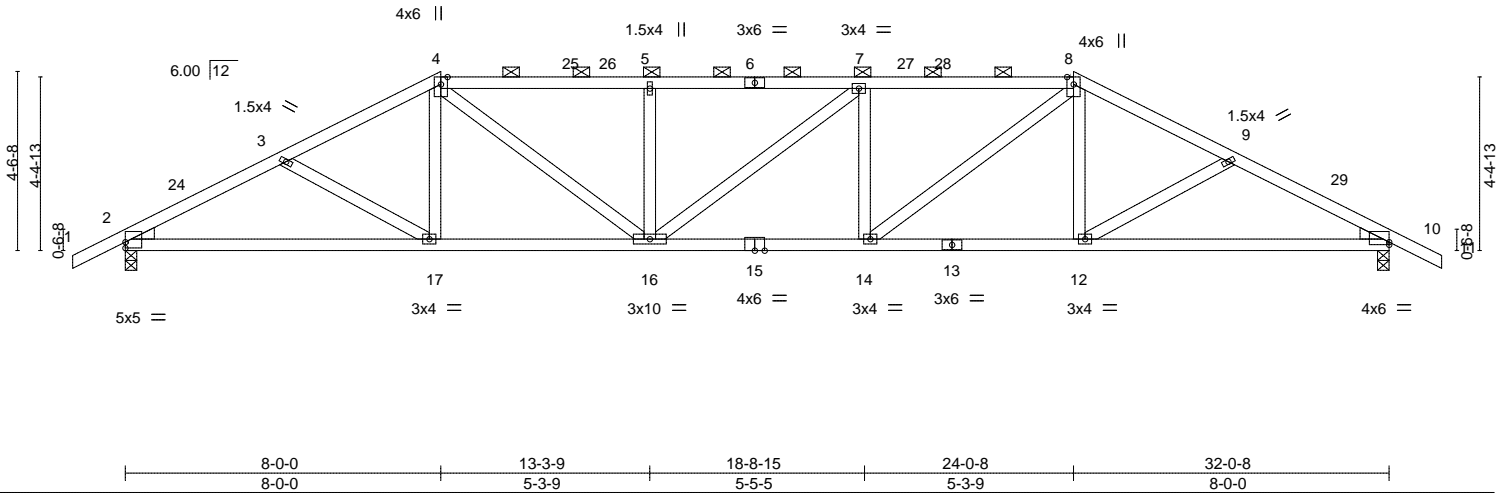ID:4ImeeSjiwdRzCfsAnBfHyayIMmJ-9xoUC97pr1wceuw2fKaG9CXup?mPEQzZXYwwMuy6kdk

-1-4-0 4-0-15 8-0-0 13-3-9 18-8-15 24-0-8 27-11-9 32-0-8 33-4-8
1-4-0 4-0-15 3-11-1 5-3-9 5-5-5 5-3-9 3-11-1 4-0-15 1-4-0

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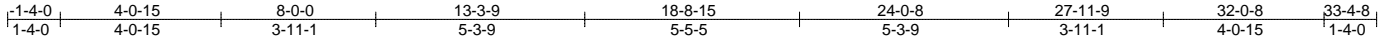
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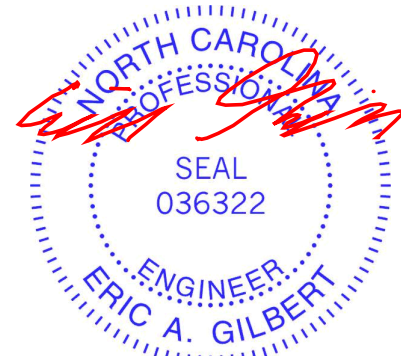| LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.20	14-16	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.82	Vert(TL)	-0.46	14-16	>840	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(TL)	0.14	10	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.10	16	>999	240	Weight: 169 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied, except
             2-0-0 oc purlins (2-10-13 max.): 4-8.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS.   (lb/size)   2=1362/0-3-8, 10=1362/0-3-8
              Max Horz 2=59(LC 10)
              Max Grav 2=1371(LC 20), 10=1371(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2313/358, 3-4=-2295/319, 4-5=-2862/390, 5-7=-2860/389, 7-8=-2864/390,
             8-9=-2295/319, 9-10=-2313/358
BOT CHORD   2-17=-242/2010, 16-17=-151/2064, 14-16=-233/2861, 12-14=-165/2064, 10-12=-256/2010
WEBS   3-17=-263/106, 4-17=0/267, 4-16=-120/1012, 5-16=-516/132, 7-14=-516/134,
        8-14=-121/1014, 8-12=0/267, 9-12=-263/106

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 8-0-0, Exterior(2) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 24-0-8, Exterior(2) 24-0-8 to 28-1-7,
   Interior(1) 28-1-7 to 33-4-8 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) 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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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ENGINEER
ERIC A. GILBERT

December 26,2018

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	E4	Hip	1	1		E12549259
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:41 2018 Page 1
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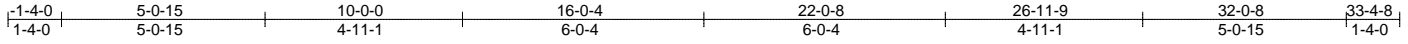
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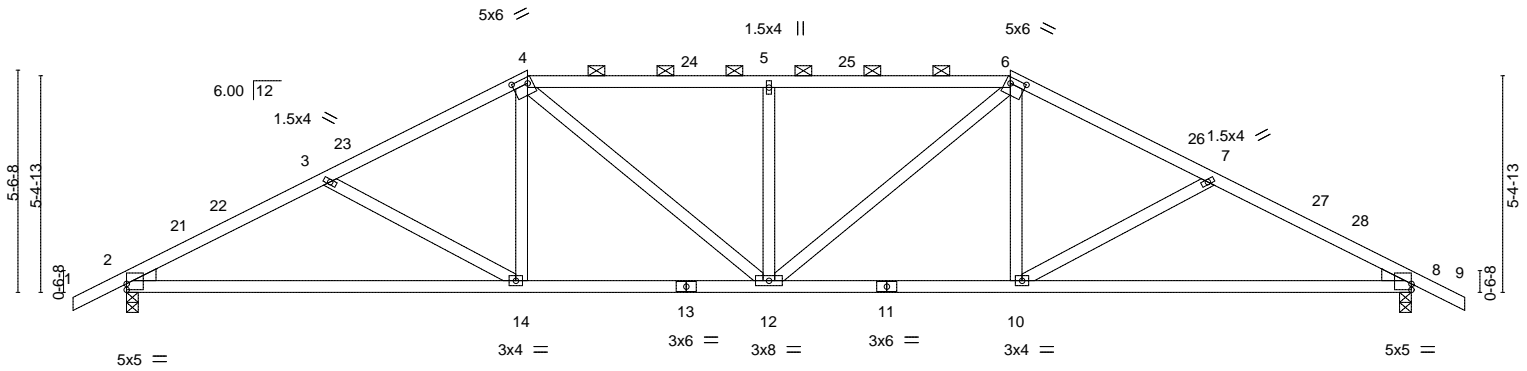
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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.18	14-17	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.94	Vert(TL)	-0.49	14-17	>790	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(TL)	0.12	8	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.08	10-12	>999	240	Weight: 166 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied, except
             2-0-0 oc purlins (3-1-15 max.): 4-6.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS.   (lb/size)   2=1362/0-3-8, 8=1362/0-3-8
              Max Horz 2=68(LC 10)
              Max Uplift 2=-3(LC 10), 8=-3(LC 11)
              Max Grav 2=1488(LC 20), 8=1488(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2358/360, 3-4=-2002/306, 4-5=-2195/359, 5-6=-2195/359, 6-7=-2002/306,
             7-8=-2358/359
BOT CHORD   2-14=-236/2014, 12-14=-116/1767, 10-12=-129/1767, 8-10=-249/2014
WEBS   3-14=-418/138, 4-14=0/383, 4-12=-91/561, 5-12=-625/146, 6-12=-91/561, 6-10=0/383,
             7-10=-418/138

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 10-0-0, Exterior(2) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 22-0-8, Exterior(2) 22-0-8 to 26-3-7,
   Interior(1) 26-3-7 to 33-4-8 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2, 8.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
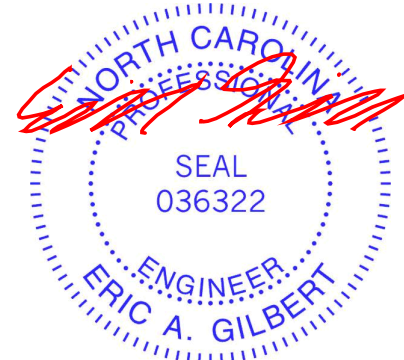
December 26,2018

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	E5	Hip	1	1		E12549260
					Job Reference (optional)	
Builders FirstSource, Albemarle , NC 28001					8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:42 2018 Page 1	

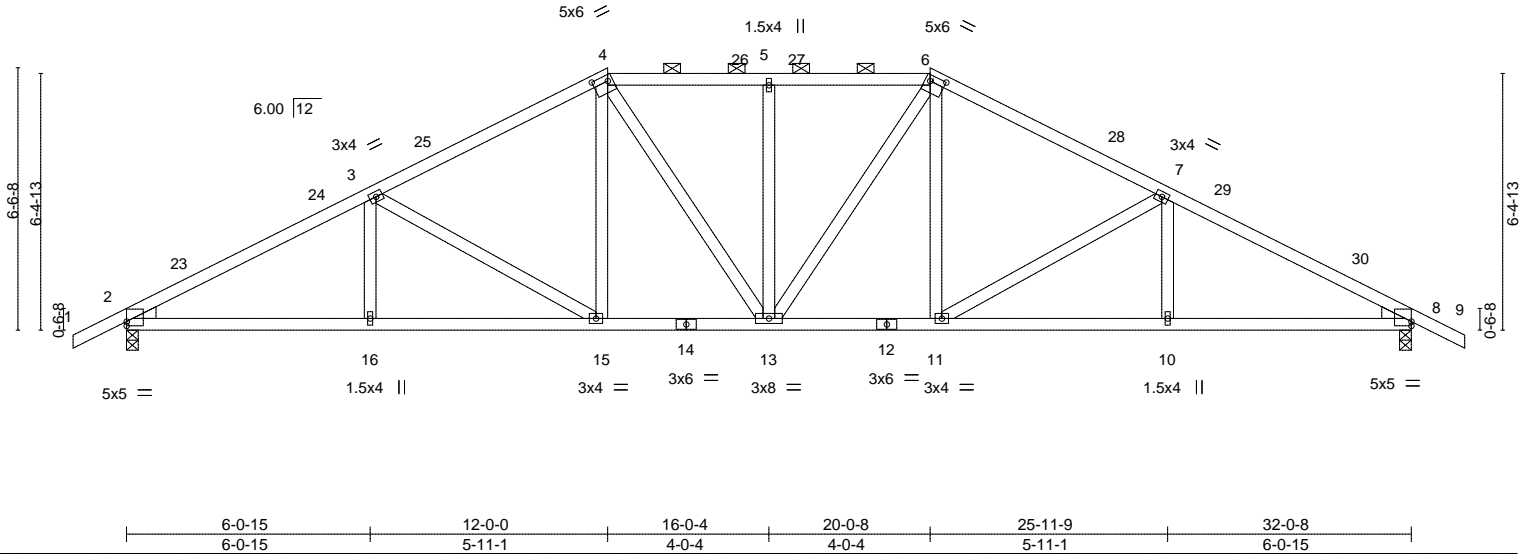ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-aWTdrA9i8yIBVLfdKT8znq9MjCndRl5?DW9azDy6kdh
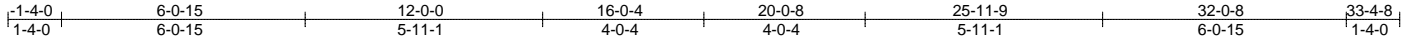
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Plate Offsets (X,Y)-- [2:0-0-0,0-1-5], [4:0-4-8,0-1-12], [6:0-4-8,0-1-12], [8:Edge,0-1-5]

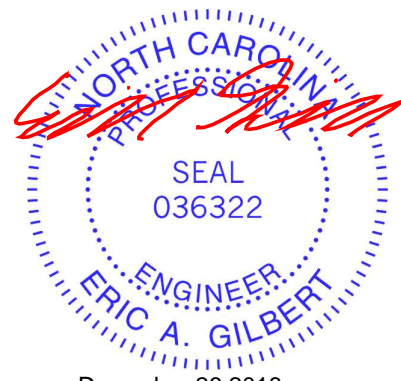| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.13	15-16	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(TL)	-0.33	15-16	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(TL)	0.13	8	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.07	13	>999	240	Weight: 181 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   (lb/size)   2=1362/0-3-8, 8=1362/0-3-8
Max Horz   2=-78(LC 11)
Max Uplift   2=-14(LC 10), 8=-14(LC 11)
Max Grav   2=1550(LC 20), 8=1550(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2600/305, 3-4=-1984/308, 4-5=-1713/322, 5-6=-1713/322, 6-7=-1984/308,
7-8=-2600/305
BOT CHORD   2-16=-184/2215, 15-16=-184/2215, 13-15=-88/1664, 11-13=-101/1664, 10-11=-197/2215,
8-10=-197/2215
WEBS   3-15=-621/111, 4-15=0/427, 4-13=-50/311, 5-13=-412/89, 6-13=-50/311, 6-11=0/427,
7-11=-621/111

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
-1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-0-0, Exterior(2) 12-0-0 to 16-0-4, Interior(1) 16-0-4 to 20-0-8, Exterior(2) 20-0-8 to 24-3-7,
Interior(1) 24-3-7 to 33-4-8 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2, 8.
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 applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

December 26,2018

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	E6	Hip	1	1		E12549261
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:43 2018 Page 1
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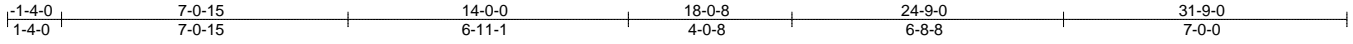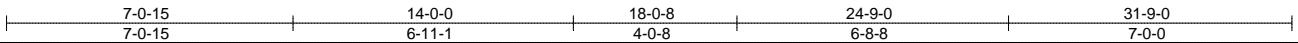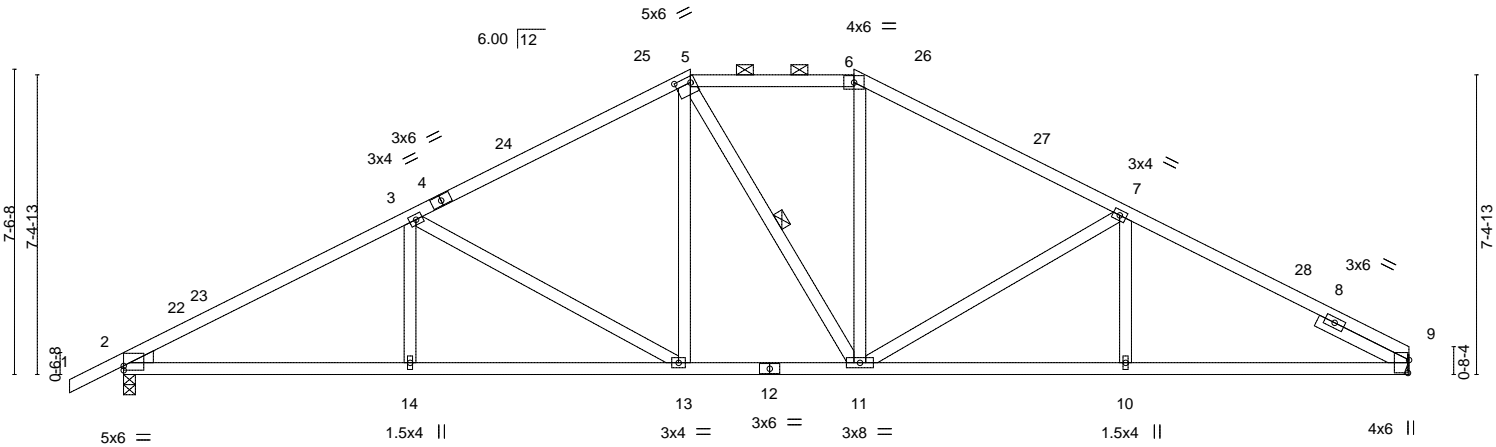
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Plate Offsets (X,Y)-- [2:0-0-0,0-1-5], [5:0-4-8,0-1-12], [9:0-3-13,0-0-5]

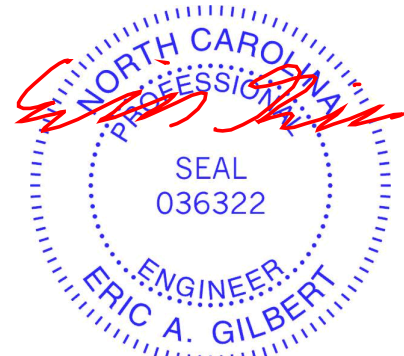| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.16	13-14	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.83	Vert(TL)	-0.38	13-14	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(TL)	0.14	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.06	13-14	>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
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (4-1-6 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-11

REACTIONS. (lb/size) 9=1268/Mechanical, 2=1352/0-3-8
Max Horz 2=98(LC 10)
Max Uplift 2=-24(LC 10)
Max Grav 9=1512(LC 20), 2=1577(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2720/294, 3-5=-1995/297, 5-6=-1642/309, 6-7=-1976/299, 7-9=-2592/294
BOT CHORD 2-14=-207/2336, 13-14=-207/2336, 11-13=-94/1648, 10-11=-186/2241, 9-10=-186/2241
WEBS 3-14=0/271, 3-13=-775/129, 5-13=-1/492, 6-11=-26/475, 7-11=-685/123, 7-10=0/254

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
-1-4-0 to 1-8-0, Interior(1) 1-8-0 to 14-0-0, Exterior(2) 14-0-0 to 22-3-7, Interior(1) 22-3-7 to 31-9-0 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
11) 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
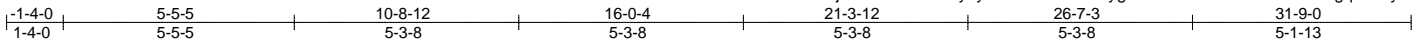
December 26,2018

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.19	13-15	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.82	Vert(TL)	-0.37	13-15	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(TL)	0.11	11	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.07	15-16	>999	240	Weight: 178 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (lb/size)   2=1416/0-3-8, 11=1334/Mechanical
Max Horz 2=108(LC 10)
Max Uplift 2=-32(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2388/230, 3-5=-2270/270, 5-6=-1853/286, 6-7=-1844/293, 7-9=-2175/295,
9-11=-2256/255
BOT CHORD   2-16=-153/2055, 15-16=-95/1757, 13-15=-13/1335, 12-13=-89/1739, 11-12=-160/1963
WEBS   6-13=-74/696, 7-13=-468/156, 7-12=-50/310, 6-15=-76/718, 5-15=-490/156,
5-16=-31/381

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
-1-4-0 to 1-8-0, Interior(1) 1-8-0 to 16-0-4, Exterior(2) 16-0-4 to 19-0-4, Interior(1) 19-0-4 to 31-9-0 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
3) TCLL: ASCE 7-05; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
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.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

December 26,2018

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

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	E8	Common	6	1	Job Reference (optional)	E12549263

Builders FirstSource,   Albemarle , NC 28001

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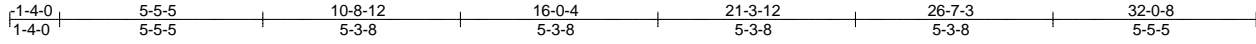
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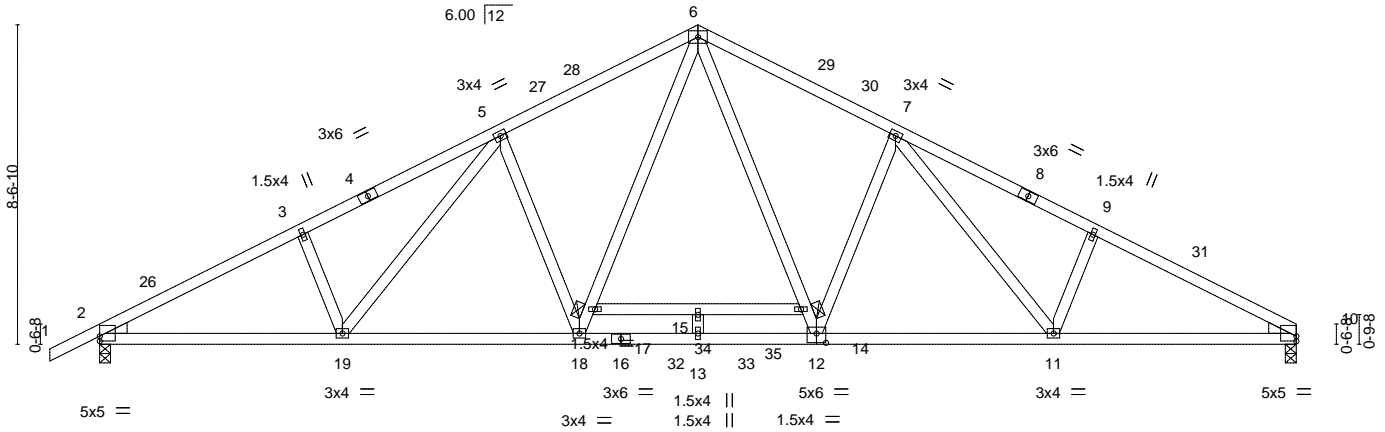
Plate Offsets (X,Y)--   [2:0-0-0,0-1-9], [10:Edge,0-1-9], [12:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.21	15	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.90	Vert(TL)	-0.46	15	>833	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.44	Horz(TL)	0.13	10	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.07	18-19	>999	240	Weight: 185 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   (lb/size)   2=1526/0-3-8, 10=1443/0-3-8
            Max Horz 2=106(LC 10)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2611/161, 3-5=-2493/202, 5-6=-2094/211, 6-7=-2095/219, 7-9=-2507/235,
                9-10=-2625/193
BOT CHORD   2-19=-88/2252, 18-19=-24/1970, 13-18=0/1567, 12-13=0/1567, 11-12=-20/1973,
                10-11=-105/2267
WEBS   6-14=-39/824, 12-14=-66/728, 7-12=-487/160, 7-11=-66/376, 17-18=-65/726,
                6-17=-39/821, 5-18=-482/158, 5-19=-39/360

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 16-0-4, Exterior(2) 16-0-4 to 19-0-4, Interior(1) 19-0-4 to 32-0-8 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
3) TCLL: ASCE 7-05; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) 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.

December 26,2018

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

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	E9	Common	2	1		E12549264
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

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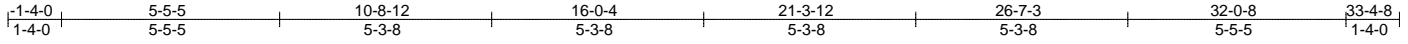
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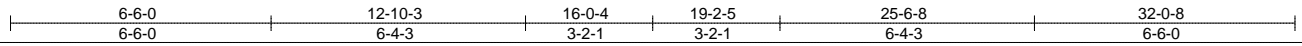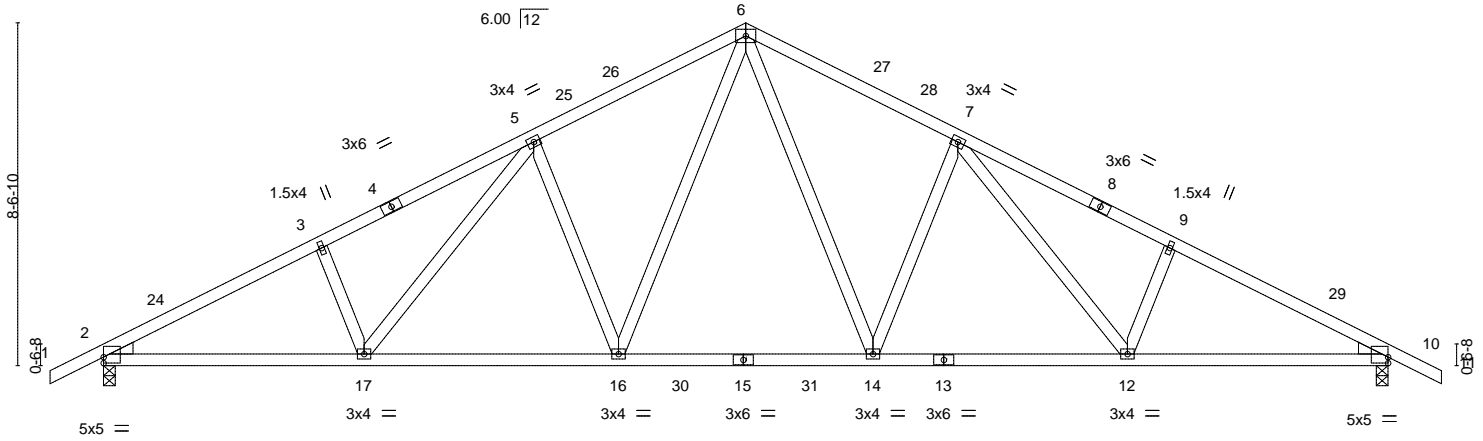
Plate Offsets (X,Y)-- [2:0-0-0,0-1-13], [10:Edge,0-1-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.20	14-16	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.83	Vert(TL)	-0.39	14-16	>978	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(TL)	0.12	10	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.07	16-17	>999	240	Weight: 179 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (lb/size)   2=1427/0-3-8, 10=1427/0-3-8
Max Horz 2=98(LC 10)
Max Uplift 2=-31(LC 10), 10=-31(LC 11)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2410/232, 3-5=-2292/272, 5-6=-1876/287, 6-7=-1876/287, 7-9=-2292/272,
9-10=-2410/232
BOT CHORD   2-17=-116/2075, 16-17=-58/1778, 14-16=0/1356, 12-14=-70/1778, 10-12=-129/2075
WEBS   6-14=-75/718, 7-14=-490/156, 7-12=-32/380, 6-16=-75/718, 5-16=-490/156,
5-17=-32/380

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 16-0-4, Exterior(2) 16-0-4 to 19-0-4, Interior(1) 19-0-4 to 33-4-8 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
3) TCLL: ASCE 7-05; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
9) 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.

NORTH CAROLINA
PROFESSIONAL
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ENGINEER
ERIC A. GILBERT

December 26,2018

ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	**Ply**	Sturtz Homes	
1625535_Jill_RF	E10	Hip Girder	1	**2**		E12549265
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:37 2018 Page 1
ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-DZgkoT5ZKQgvOamfYvYo4nRVtB5?mSRG3ERqI0y6kdm

Scale = 1:57.1

Plate Offsets (X,Y)--   [1:0-0-3,0-1-0], [4:0-4-0,0-1-15], [9:0-5-0,0-1-7], [12:0-6-12,0-2-8], [14:0-5-0,0-6-12]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.22	16	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.75	Vert(TL)	-0.48	16-17	>803	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.68	Horz(TL)	0.09	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MS		Wind(LL)	0.11	16	>999	240	Weight: 524 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-0-5 oc purlins, except
BOT CHORD	2x10 SP DSS *Except*		2-0-0 oc purlins (4-7-7 max.): 4-5.
	13-15: 2x10 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		

REACTIONS.   (lb/size)   1=5322/0-3-8, 9=5401/0-3-8
Max Horz 1=-97(LC 24)
Max Uplift 9=-247(LC 9)
Max Grav 1=5619(LC 18), 9=6186(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-10765/0, 2-3=-9675/152, 3-4=-7747/278, 4-5=-7043/300, 5-6=-7907/315,
6-8=-9920/361, 8-9=-11455/385
BOT CHORD   1-18=0/9577, 17-18=0/9577, 16-17=-90/8583, 14-16=-141/6890, 12-14=-203/8802,
11-12=-267/10203, 9-11=-267/10203
WEBS   2-18=0/880, 2-17=-1215/0, 3-17=0/2198, 3-16=-2504/0, 4-16=-49/2932, 4-14=-118/422,
5-14=-116/3274, 6-14=-2609/151, 6-12=-55/2315, 8-12=-1600/89, 8-11=-1/1173

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-05; 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.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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December 26,2018
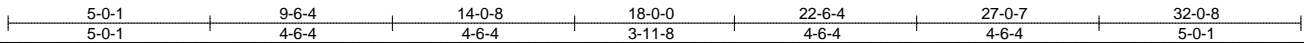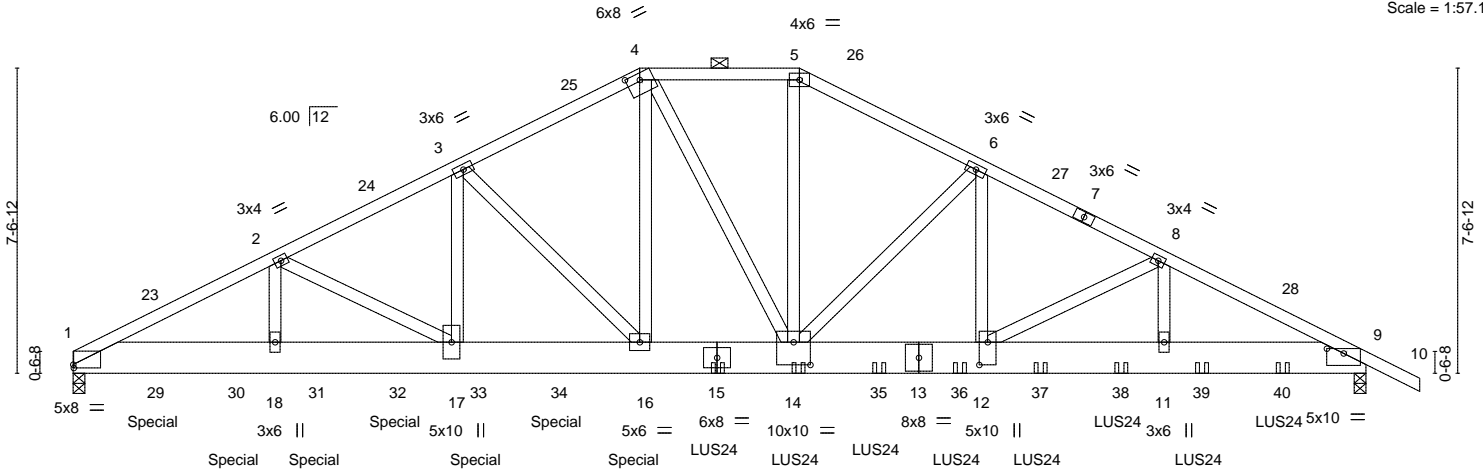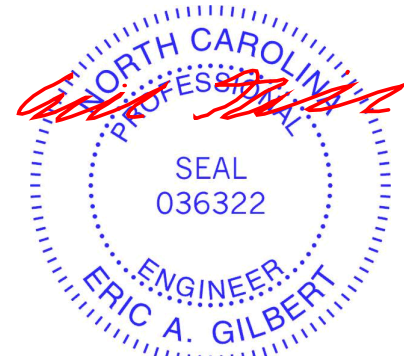
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TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	E10	Hip Girder	1	**2**	Job Reference (optional)	E12549265

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:37 2018 Page 2
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NOTES-

13) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 15-11-12 from the left end to 29-11-12 to connect truss(es) to front face of bottom chord.

14) Fill all nail holes where hanger is in contact with lumber.

15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 538 lb down at 2-0-12, 538 lb down at 4-0-12, 538 lb down at 6-0-12, 591 lb down and 24 lb up at 8-0-12, 532 lb down and 21 lb up at 10-0-12, and 620 lb down and 47 lb up at 12-0-12, and 559 lb down and 78 lb up at 13-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-5=-60, 5-10=-60, 1-9=-20

Concentrated Loads (lb)

Vert: 15=-538(F) 16=-538(F) 14=-532(F) 29=-538(F) 30=-538(F) 31=-538(F) 32=-532(F) 33=-532(F) 34=-532(F) 35=-611(F) 36=-532(F) 37=-532(F) 38=-532(F) 39=-532(F) 40=-523(F)

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G1	GABLE	1	1		E12549266
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:48 2018 Page 1
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-1-4-0 5-9-8 7-2-0 8-6-8 14-4-0 15-8-0
1-4-0 5-9-8 1-4-8 1-4-8 5-9-8 1-4-0

Scale = 1:28.6

5-9-8 8-6-8 14-4-0
5-9-8 2-9-0 5-9-8
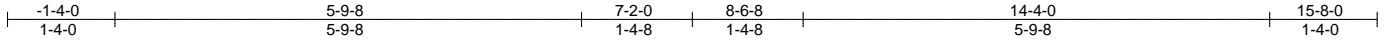
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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.04	9	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.35	Vert(TL)	-0.11	8-20	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(TL)	0.07	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.02	9-17	>999	240	Weight: 73 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.2
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.2, Right: 2x4 SP No.2

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

REACTIONS.   (lb/size)   2=653/0-3-8, 6=653/0-3-8
Max Horz 2=-55(LC 11)
Max Uplift 2=-37(LC 10), 6=-37(LC 11)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1327/141, 3-4=-1315/237, 4-5=-1315/251, 5-6=-1327/155
BOT CHORD   2-9=-32/1174, 8-9=0/823, 6-8=-66/1174
WEBS   4-8=-175/658, 4-9=-170/658

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-2-0, Exterior(2) 7-2-0 to 10-2-0, Interior(1) 10-2-0 to 15-8-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-05; 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
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs
   non-concurrent with other live loads.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
10) Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
    capacity of bearing surface.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This
    connection is for uplift only and does not consider lateral forces.
12) 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.

NORTH CAROLINA
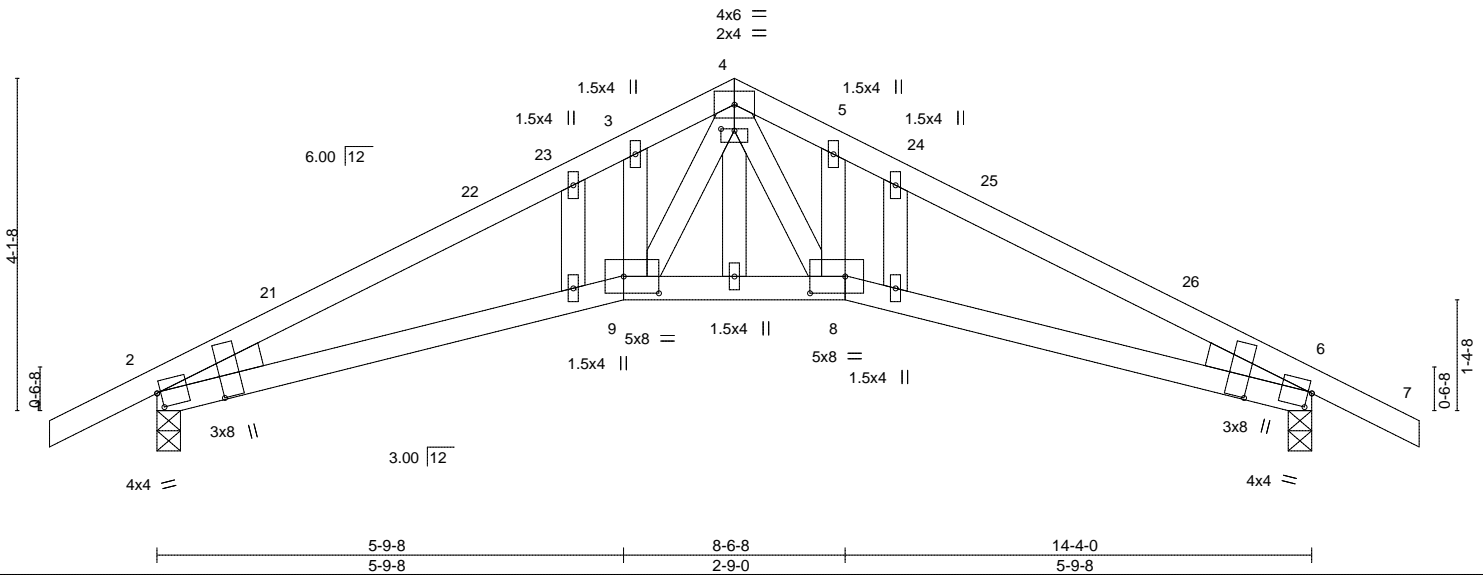PROFESSIONAL
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ENGINEER
ERIC A. GILBERT

December 26,2018

ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G2	Roof Special	3	1		E12549267
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001 8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:54 2018 Page 1

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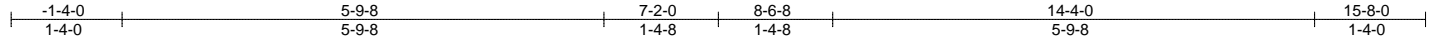
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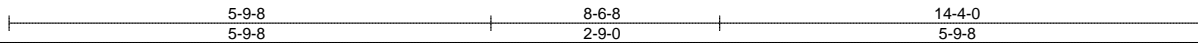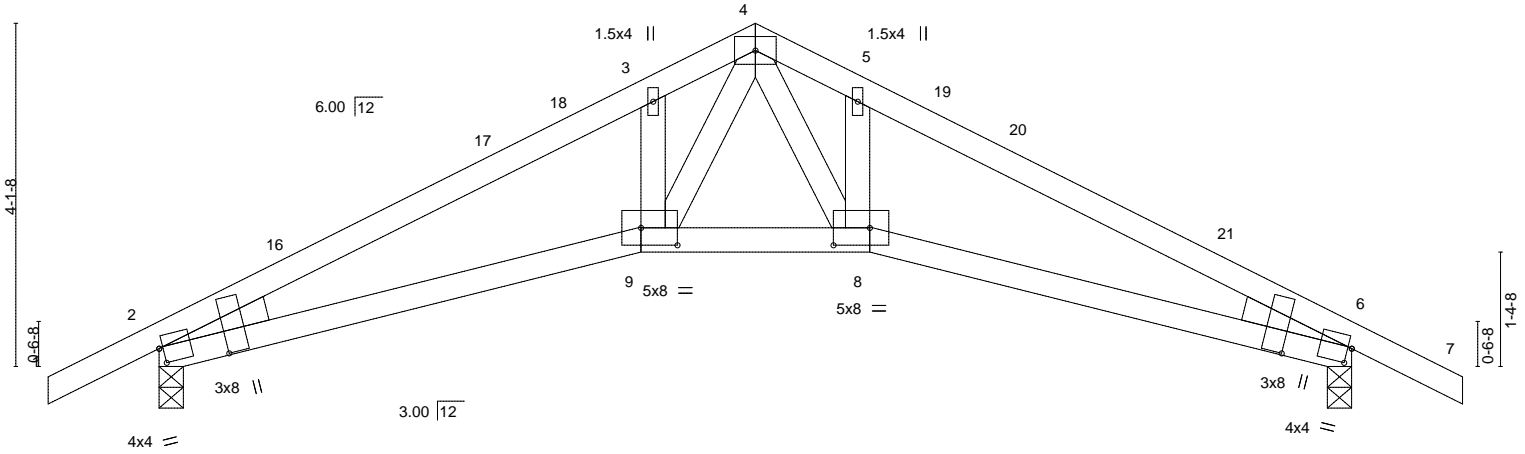
Plate Offsets (X,Y)-- [2:0-0-9,0-2-4], [2:0-3-2,0-9-10], [6:0-3-2,0-9-10], [6:0-0-9,0-2-4], [8:0-5-4,0-2-8], [9:0-5-4,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.04	9	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.35	Vert(TL)	-0.11	8-15	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(TL)	0.07	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.02	9-12	>999	240	Weight: 66 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (lb/size) 2=653/0-3-8, 6=653/0-3-8
Max Horz 2=-55(LC 11)
Max Uplift 2=-37(LC 10), 6=-37(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1327/141, 3-4=-1315/237, 4-5=-1315/251, 5-6=-1327/155
BOT CHORD 2-9=-32/1174, 8-9=0/823, 6-8=-66/1174
WEBS 4-8=-175/658, 4-9=-170/658

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
-1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-2-0, Exterior(2) 7-2-0 to 10-2-0, Interior(1) 10-2-0 to 15-8-0 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
3) TCLL: ASCE 7-05; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members.
8) Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
capacity of bearing surface.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This
connection is for uplift only and does not consider lateral forces.
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.

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G3	Roof Special	3	1		E12549268
					Job Reference (optional)	

Builders FirstSource,　　Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:55 2018 Page 1
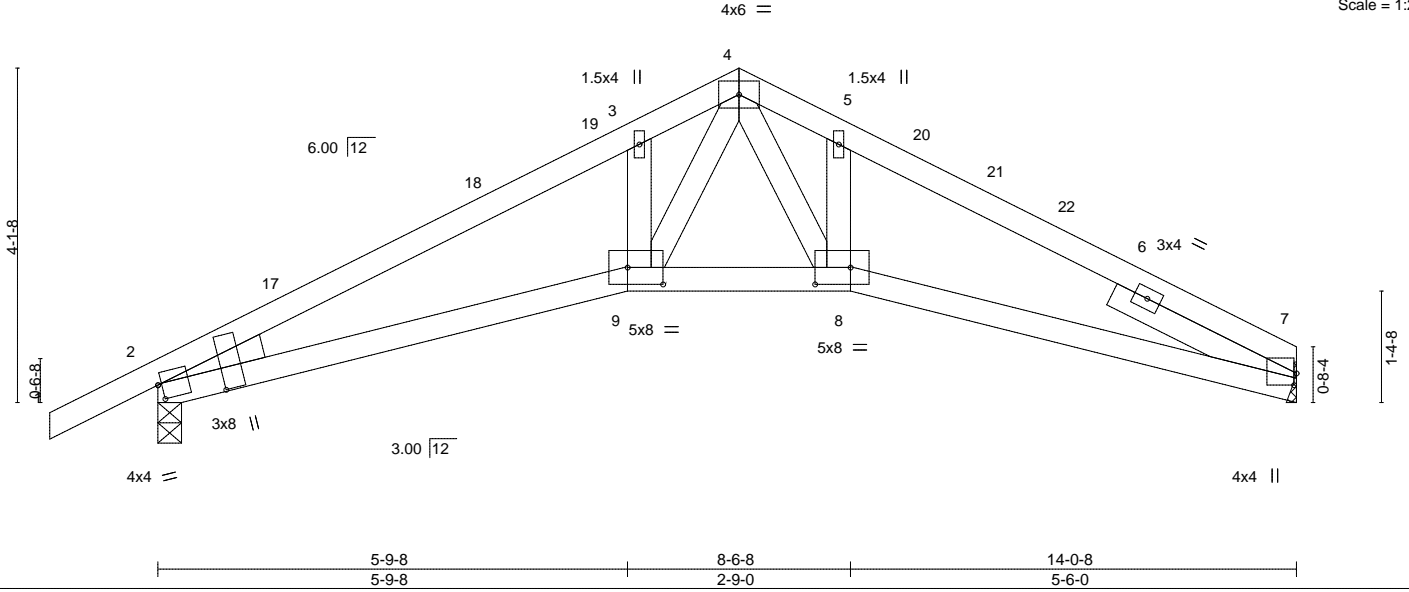ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-h0lXZdJs4yxLZL87bht0paBipSKc_hFwC1omxzy6kdU
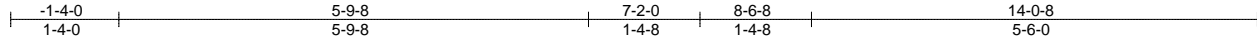
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Plate Offsets (X,Y)--   [2:0-3-2,0-9-10], [2:0-0-9,0-2-4], [7:0-1-12,0-0-6], [8:0-5-4,0-2-8], [9:0-5-4,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.04	9	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.34	Vert(TL)	-0.11	9-16	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(TL)	0.07	7	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.02	8-12	>999	240	Weight: 65 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (lb/size)   7=558/Mechanical, 2=645/0-3-8
            Max Horz 2=65(LC 10)
            Max Uplift 2=-38(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1299/197, 3-4=-1288/292, 4-5=-1250/286, 5-7=-1227/206
BOT CHORD   2-9=-125/1149, 8-9=-38/801, 7-8=-118/1125
WEBS   4-9=-183/654, 4-8=-179/600

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-2-0, Exterior(2) 7-2-0 to 10-2-0, Interior(1) 10-2-0 to 14-0-8 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
3) TCLL: ASCE 7-05; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
   capacity of bearing surface.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This
    connection is for uplift only and does not consider lateral forces.
11) 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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8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:56 2018 Page 1
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LOADING (psf)

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.09	7-10	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(TL)	-0.16	7-10	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(TL)	0.05	5	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.05	7-10	>999	240	Weight: 71 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.
(lb/size)   5=552/Mechanical, 2=640/0-3-8
Max Horz 2=131(LC 10)
Max Uplift 5=-12(LC 9), 2=-30(LC 10)
Max Grav 5=611(LC 15), 2=796(LC 16)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1370/242, 3-4=-704/185, 4-5=-563/165
BOT CHORD   2-7=-293/1174, 6-7=-214/762
WEBS   3-7=-92/566, 3-6=-304/163, 4-6=-200/775

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 8-0-0, Exterior(2) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 13-10-12 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
    capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This
    connection is for uplift only and does not consider lateral forces.
13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum
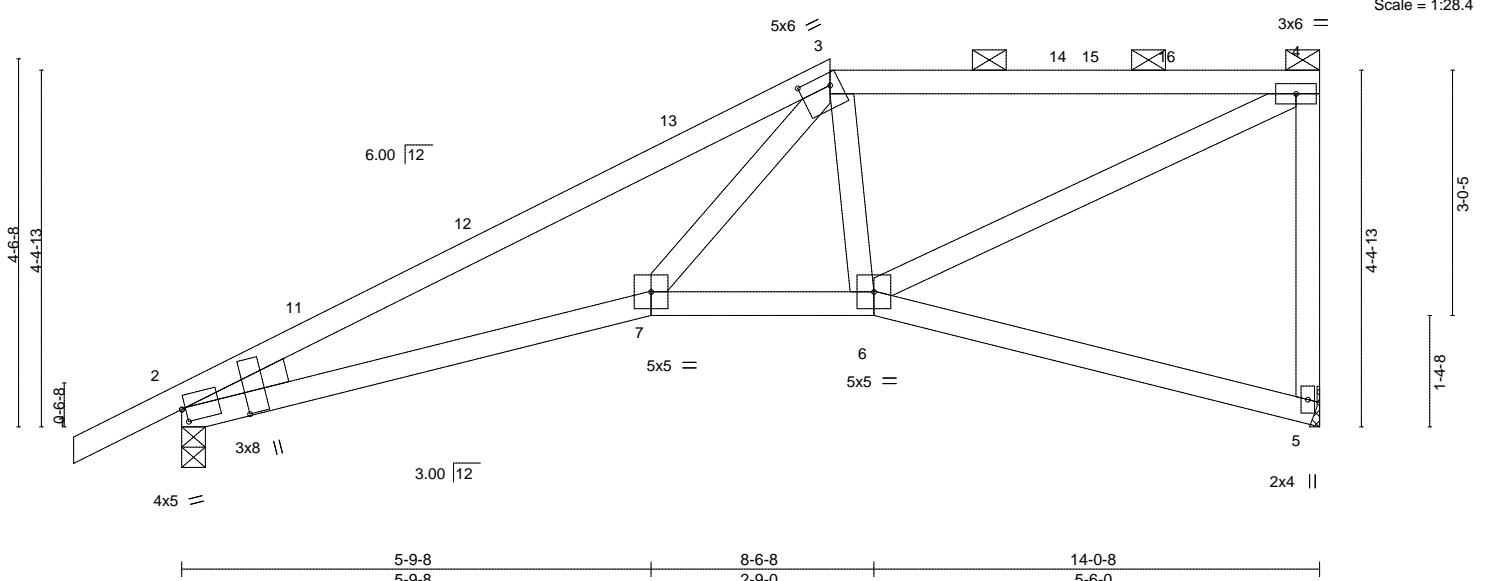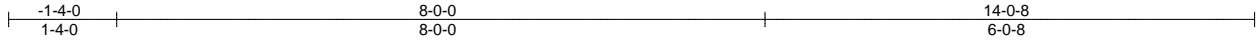   sheetrock be applied directly to the bottom chord.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
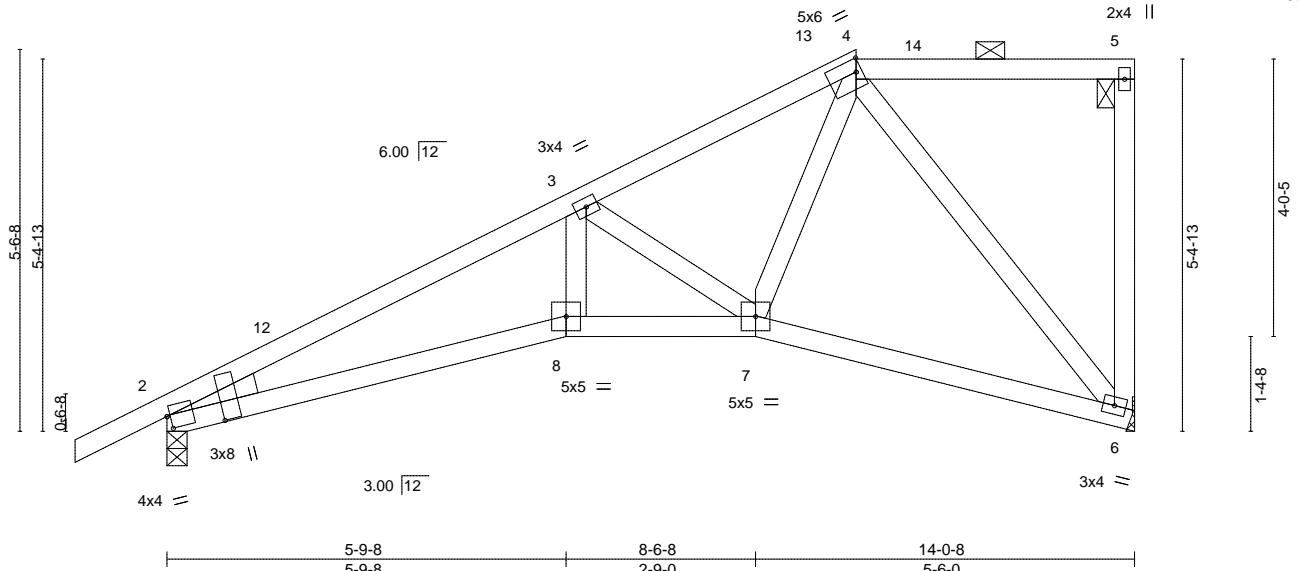
December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Scale = 1:33.4

Plate Offsets (X,Y)--   [2:0-3-2,0-9-10], [2:0-0-9,0-2-4], [4:0-1-0,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.05	8	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.41	Vert(TL)	-0.11	8-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(TL)	0.07	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.03	8	>999	240	Weight: 77 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS.   (lb/size)   6=552/Mechanical, 2=640/0-3-8
Max Horz 2=158(LC 10)
Max Uplift 6=-9(LC 9), 2=-28(LC 10)
Max Grav 6=552(LC 1), 2=837(LC 16)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1625/235, 3-4=-845/139
BOT CHORD   2-8=-339/1426, 7-8=-319/1343, 6-7=-132/454
WEBS   3-8=-42/408, 3-7=-807/199, 4-7=-97/707, 4-6=-692/200

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
-1-4-0 to 1-8-0, Interior(1) 1-8-0 to 10-0-0, Exterior(2) 10-0-0 to 13-10-12 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This
connection is for uplift only and does not consider lateral forces.
13) 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.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
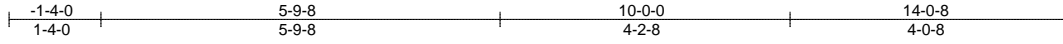
December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G6	Half Hip	1	1		E12549271
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:58 2018 Page 1
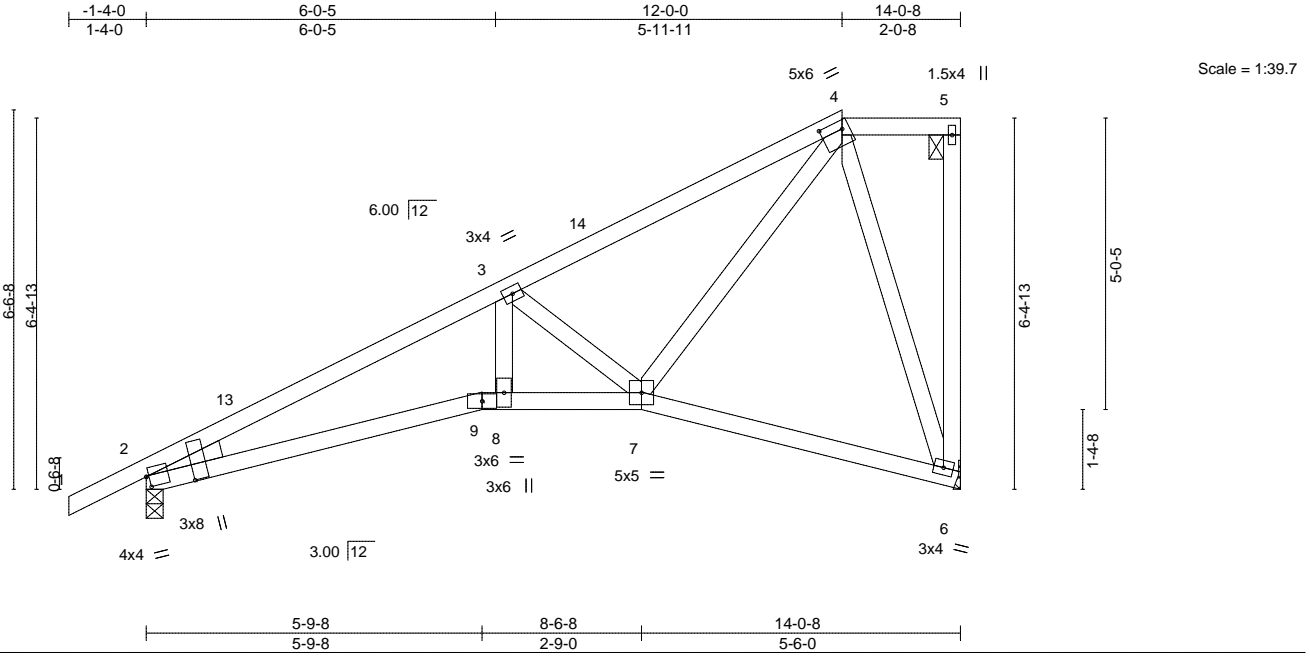ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-6bRgCeLkNtJwQothGqQjRCp8dfJUB_dMu?1RXIy6kdR

Plate Offsets (X,Y)--   [2:0-3-2,0-9-10], [2:0-0-9,0-2-4], [4:0-4-8,0-1-12]

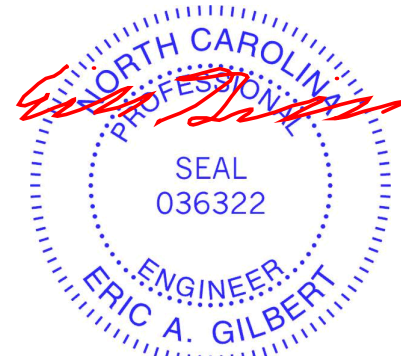| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.07	9-12	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.52	Vert(TL)	-0.14	9-12	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(TL)	0.08	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.03	9-12	>999	240	Weight: 82 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied, except end verticals, and
             2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS.   (lb/size)   6=552/Mechanical, 2=640/0-3-8
             Max Horz 2=184(LC 10)
             Max Uplift 6=-35(LC 10), 2=-21(LC 10)
             Max Grav 6=640(LC 16), 2=810(LC 16)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1709/180, 3-4=-921/102
BOT CHORD   2-9=-323/1506, 8-9=-307/1457, 7-8=-307/1457
WEBS   3-8=-40/457, 3-7=-953/221, 4-7=-122/862, 4-6=-710/228

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-0-0, Exterior(2) 12-0-0 to 13-10-12 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
   capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This
   connection is for uplift only and does not consider lateral forces.
13) 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.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

December 26,2018

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G7	Jack-Closed	1	1		E12549272
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:58 2018 Page 1
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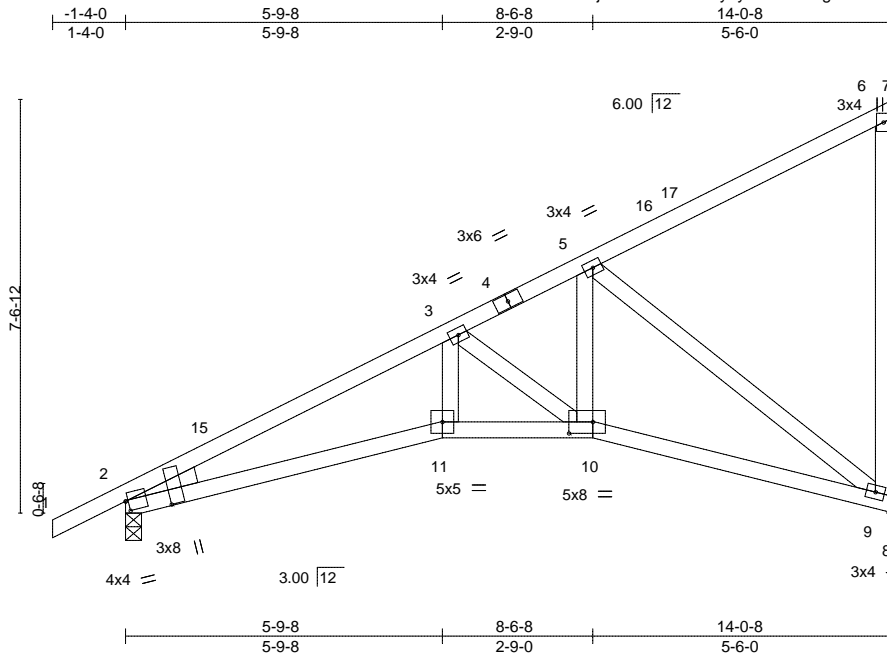
Scale = 1:42.1

Plate Offsets (X,Y)--   [2:0-0-9,0-2-4], [2:0-3-2,0-9-10], [10:0-5-4,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.04	9-10	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.35	Vert(TL)	-0.10	9-10	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.75	Horz(TL)	0.06	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.03	11-14	>999	240	Weight: 80 lb	FT = 20%
BCDL	10.0											

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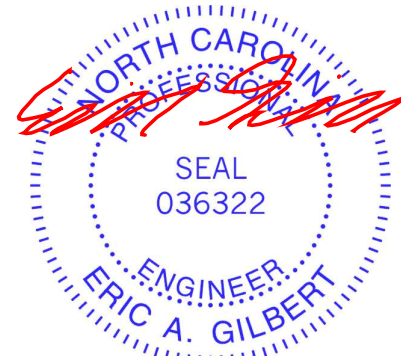WEBS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.2

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

REACTIONS.   (lb/size)   9=558/Mechanical, 2=638/0-3-8
              Max Horz 2=214(LC 10)
              Max Uplift 9=-66(LC 10), 2=-8(LC 10)
              Max Grav 9=579(LC 3), 2=638(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1265/84, 3-5=-718/25
BOT CHORD   2-11=-270/1118, 10-11=-250/1046, 9-10=-173/681
WEBS   3-11=-39/342, 3-10=-516/112, 5-10=-41/538, 5-9=-814/202

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 14-0-8 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
2) TCLL: ASCE 7-05; 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
   capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This
    connection is for uplift only and does not consider lateral forces.
11) 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.

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G8	Jack-Closed	1	1		E12549273
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:59 2018 Page 1

ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-ao?2P_MM8ARn1ySuqXxyzQMIl3ggwN9V7fm_4ky6kdQ

Scale = 1:41.7

6.00 ⌐12

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.05	8-9	>999	360		MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.46	Vert(TL)	-0.13	8-9	>999	240			
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(TL)	0.02	8	n/a	n/a			
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.02	9-12	>999	240		Weight: 74 lb	FT = 20%
BCDL	10.0												

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

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

REACTIONS. (lb/size)   2=638/0-3-8, 8=558/Mechanical
            Max Horz 2=214(LC 10)
            Max Uplift 2=-9(LC 10), 8=-65(LC 10)
            Max Grav 2=638(LC 1), 8=578(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-766/0
BOT CHORD   2-9=-145/612, 8-9=-145/612
WEBS   3-9=0/306, 3-8=-673/157

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 14-0-8 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
2) TCLL: ASCE 7-05; 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) 2, 8.
9) 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.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

December 26,2018

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G9	Half Hip	1	1		E12549274
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:00 2018 Page 1
ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-2_ZQdKN?vUZef614OFSBWduURT0ofqSfMJWXcAy6kdP

-1-4-0 | 7-0-15 | 14-0-0 | 14-0-8
1-4-0 | 7-0-15 | 6-11-1 | 0-0-8

Scale = 1:43.7

6.00 ⌐12

7-0-15 | 14-0-8
7-0-15 | 6-11-9

LOADING (psf)
TCLL (roof) 20.0
Snow (Pf/Pg) 15.4/20.0
TCDL 10.0
BCLL 0.0 *
BCDL 10.0

SPACING- 2-0-0
Plate Grip DOL 1.15
Lumber DOL 1.15
Rep Stress Incr YES
Code IRC2009/TPI2007

CSI.
TC 0.50
BC 0.47
WB 0.78
Matrix-AS

DEFL. | in | (loc) | l/defl | L/d
Vert(LL) | -0.05 | 6-7 | >999 | 360
Vert(TL) | -0.13 | 6-7 | >999 | 240
Horz(TL) | 0.02 | 6 | n/a | n/a
Wind(LL) | 0.02 | 7-10 | >999 | 240

PLATES **GRIP**
MT20 244/190

Weight: 74 lb FT = 20%

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

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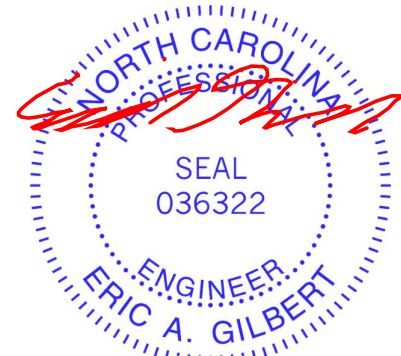BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=640/0-3-8, 6=552/Mechanical
Max Horz 2=212(LC 10)
Max Uplift 2=-10(LC 10), 6=-65(LC 10)
Max Grav 2=640(LC 1), 6=564(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-763/0
BOT CHORD 2-7=-132/608, 6-7=-132/608
WEBS 3-7=0/310, 3-6=-678/146

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 13-10-12 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) TCLL: ASCE 7-05; 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) 2, 6.
9) 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.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.09	6-7	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.47	Vert(TL)	-0.18	6-7	>911	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(TL)	0.01	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.02	7-10	>999	240	Weight: 81 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS.   (lb/size)   2=658/0-3-8, 6=631/Mechanical
Max Horz   2=184(LC 10)
Max Uplift   2=-22(LC 10), 6=-34(LC 10)
Max Grav   2=823(LC 16), 6=719(LC 16)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1118/30, 3-4=-980/94
BOT CHORD   2-7=-178/904
WEBS   3-7=-502/181, 4-7=-109/882, 4-6=-659/218

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-0-0, Exterior(2) 12-0-0 to 13-10-12 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
11) 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	E12549276
1625535_Jill_RF	G11	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:49 2018 Page 1
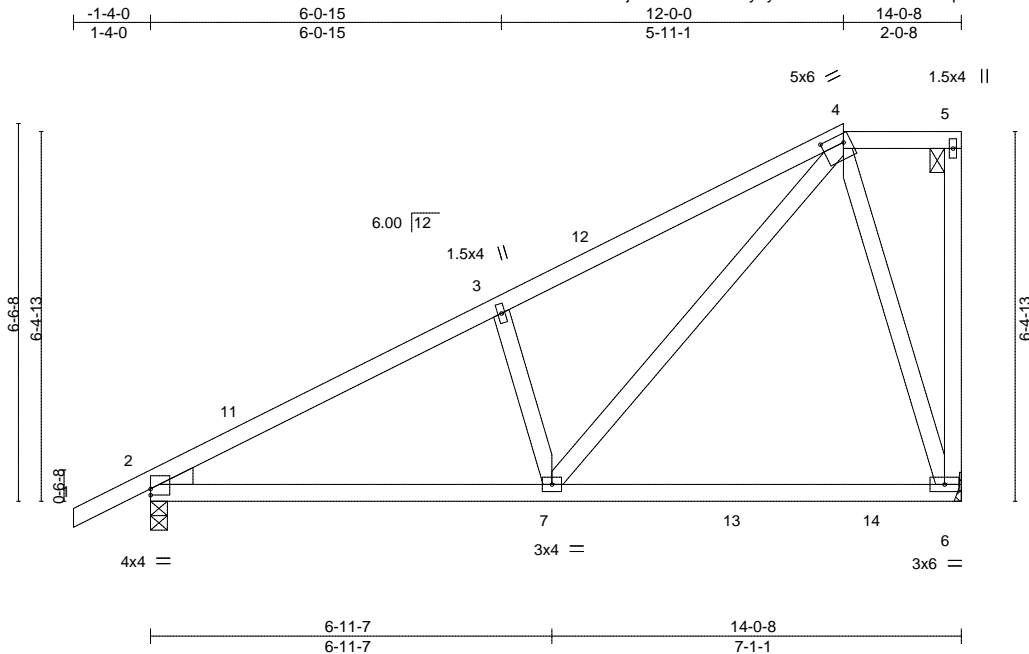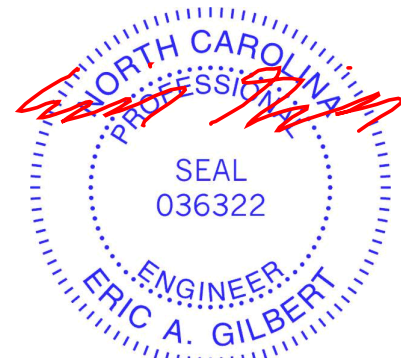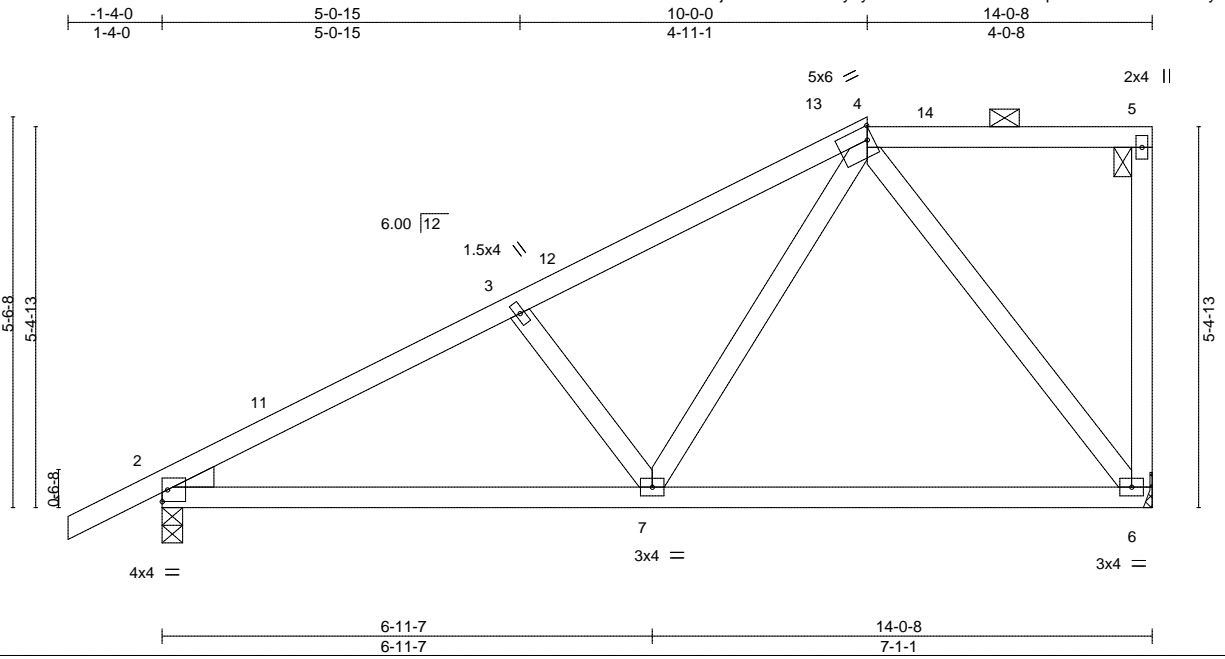ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-ssOGJZE5V6ACqQhzFRmcZJxea1FLay01q5LSjJy6kda

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

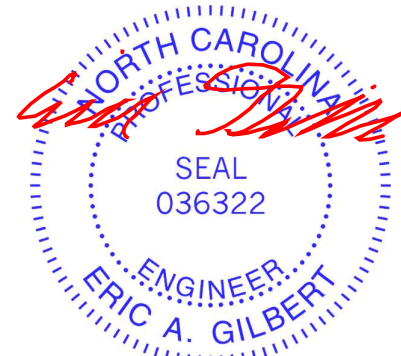| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.05	6-7	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.46	Vert(TL)	-0.14	6-7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.45	Horz(TL)	0.02	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.01	7	>999	240	Weight: 76 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied, except end verticals, and
             2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS.   (lb/size)   2=640/0-3-8, 6=552/Mechanical
              Max Horz 2=158(LC 10)
              Max Uplift 2=-29(LC 10), 6=-9(LC 9)
              Max Grav 2=837(LC 16), 6=552(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1056/92, 3-4=-800/92
BOT CHORD   2-7=-211/862, 6-7=-104/345
WEBS   3-7=-406/153, 4-7=-36/550, 4-6=-557/175

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 10-0-0, Exterior(2) 10-0-0 to 13-10-12 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
11) 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G12	Half Hip	1	1		E12549277
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:50 2018 Page 1
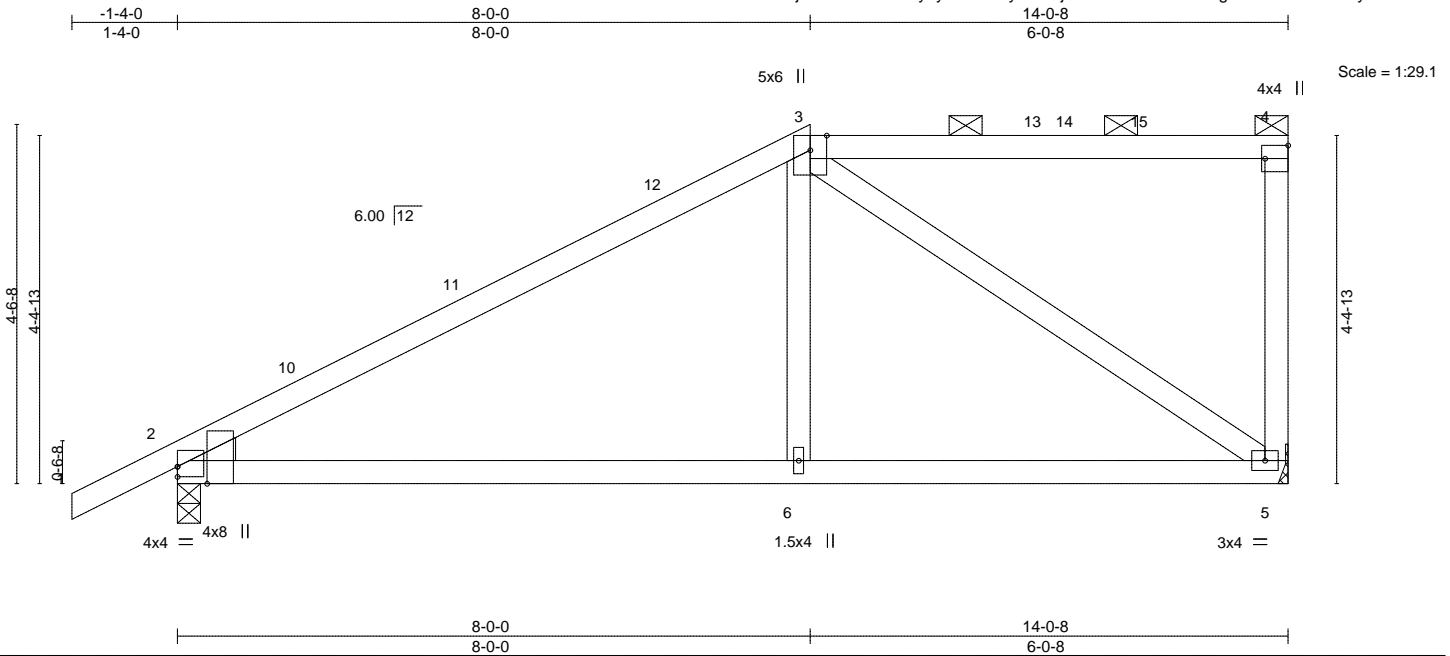ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-L3yeWvFjGPI3SaG9o8Hr6WUgDRXbJLZB3l50Fly6kdZ

Scale = 1:29.1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.14	6-9	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.72	Vert(TL)	-0.29	6-9	>573	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(TL)	0.03	2	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.07	6-9	>999	240	Weight: 68 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   (lb/size)   2=640/0-3-8, 5=552/Mechanical
Max Horz   2=131(LC 10)
Max Uplift   2=-31(LC 10), 5=-12(LC 9)
Max Grav   2=796(LC 16), 5=611(LC 15)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-763/93, 4-5=-250/69
BOT CHORD   2-6=-141/564, 5-6=-143/557
WEBS   3-6=0/316, 3-5=-678/172

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
-1-4-0 to 1-8-0, Interior(1) 1-8-0 to 8-0-0, Exterior(2) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 13-10-12 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This
connection is for uplift only and does not consider lateral forces.
12) 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.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

December 26,2018

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G13	Half Hip	1	1		E12549278
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:51 2018 Page 1
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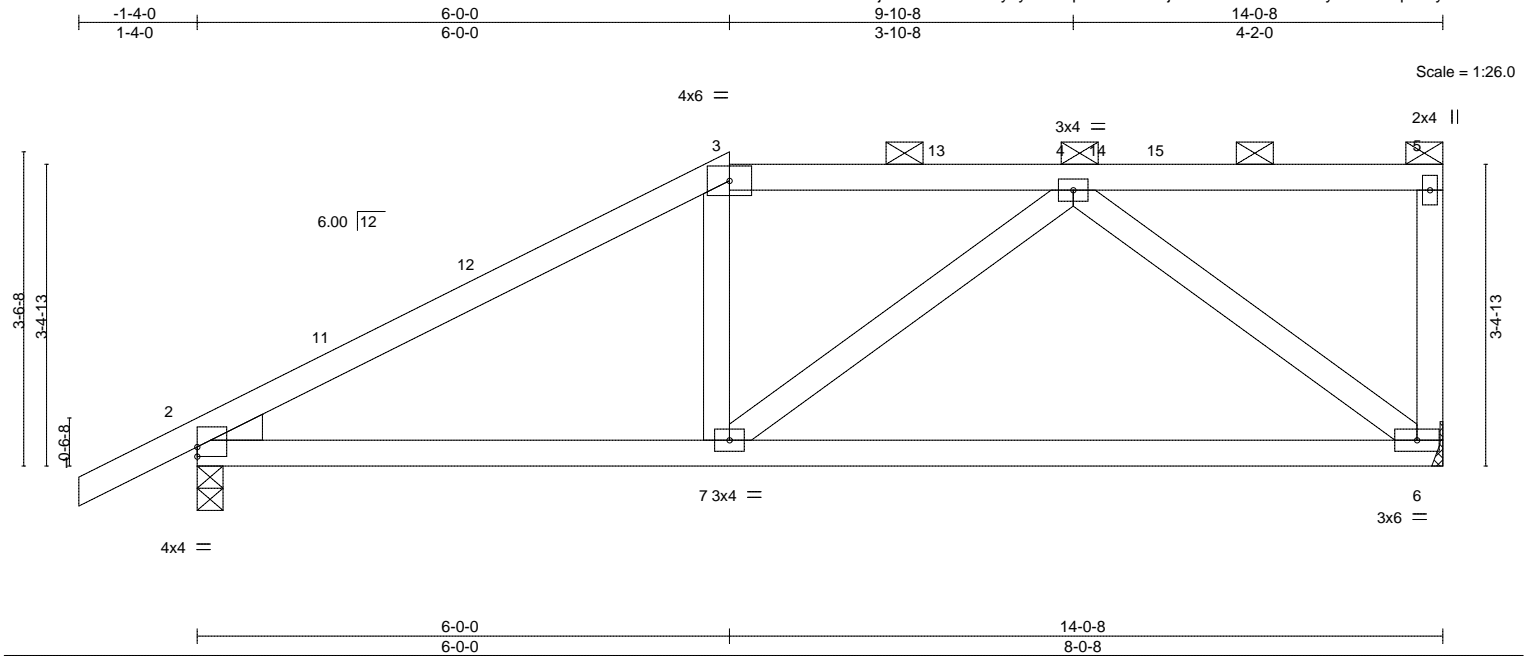
Scale = 1:26.0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.10	6-7	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.52	Vert(TL)	-0.26	6-7	>635	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.37	Horz(TL)	0.02	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.02	7-10	>999	240	Weight: 69 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied, except end verticals, and
                        2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS.   (lb/size)   2=640/0-3-8, 6=552/Mechanical
                      Max Horz   2=105(LC 10)
                      Max Uplift   2=-28(LC 10), 6=-14(LC 9)
                      Max Grav   2=739(LC 16), 6=669(LC 15)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-812/114, 3-4=-658/154
BOT CHORD   2-7=-148/660, 6-7=-132/603
WEBS   4-7=-26/299, 4-6=-709/176

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-0-0, Exterior(2) 6-0-0 to 10-2-15, Interior(1) 10-2-15 to 13-10-12 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
11) 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
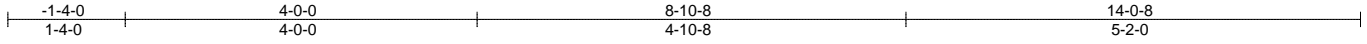
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

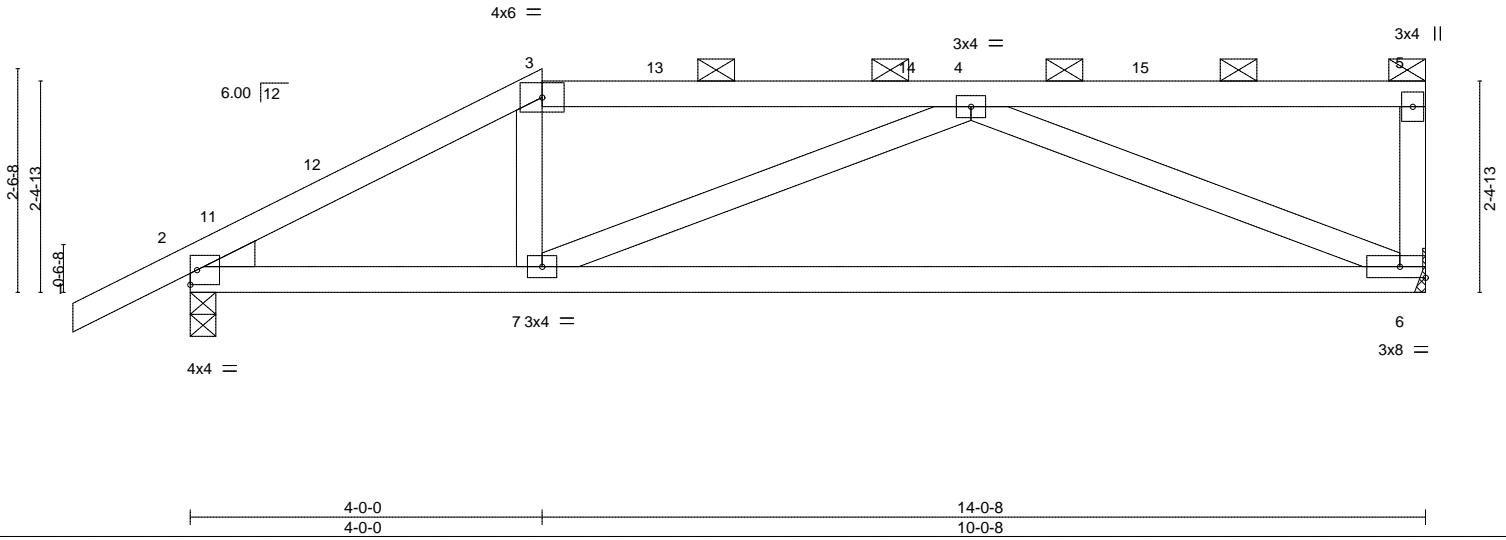| Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	E12549279
1625535_Jill_RF	G14	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:52 2018 Page 1
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1-4-0 | 4-0-0 | 4-10-8 | 5-2-0

Scale = 1:26.2

4x6 =

6.00 | 12

3x4 =

3x4 ||

2-6-8
2-4-13
0-6-8

7 3x4 =

4x4 =

3x8 =

4-0-0 | 14-0-8
4-0-0 | 10-0-8

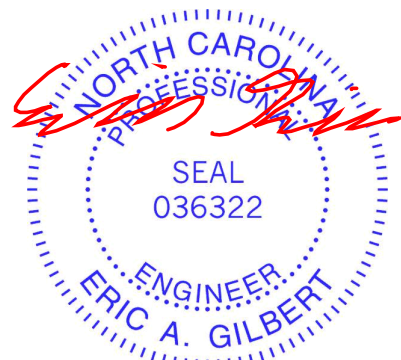| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.24	6-7	>685	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.80	Vert(TL)	-0.62	6-7	>267	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(TL)	0.03	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-AS		Wind(LL)	0.02	6-7	>999	240	Weight: 67 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-7-14 max.): 3-5.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS. (lb/size)   2=640/0-3-8, 6=552/Mechanical
Max Horz 2=78(LC 10)
Max Uplift 2=-21(LC 10), 6=-16(LC 9)
Max Grav 2=664(LC 16), 6=711(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1035/100, 3-4=-890/129
BOT CHORD   2-7=-123/902, 6-7=-208/1088
WEBS   3-7=0/297, 4-6=-1059/250

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 4-0-0, Exterior(2) 4-0-0 to 8-2-15, Interior(1) 8-2-15 to 13-10-12 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
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
11) 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

December 26,2018

ENGINEERING BY
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G15	Half Hip Girder	1	1		E12549280
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:46:53 2018 Page 1
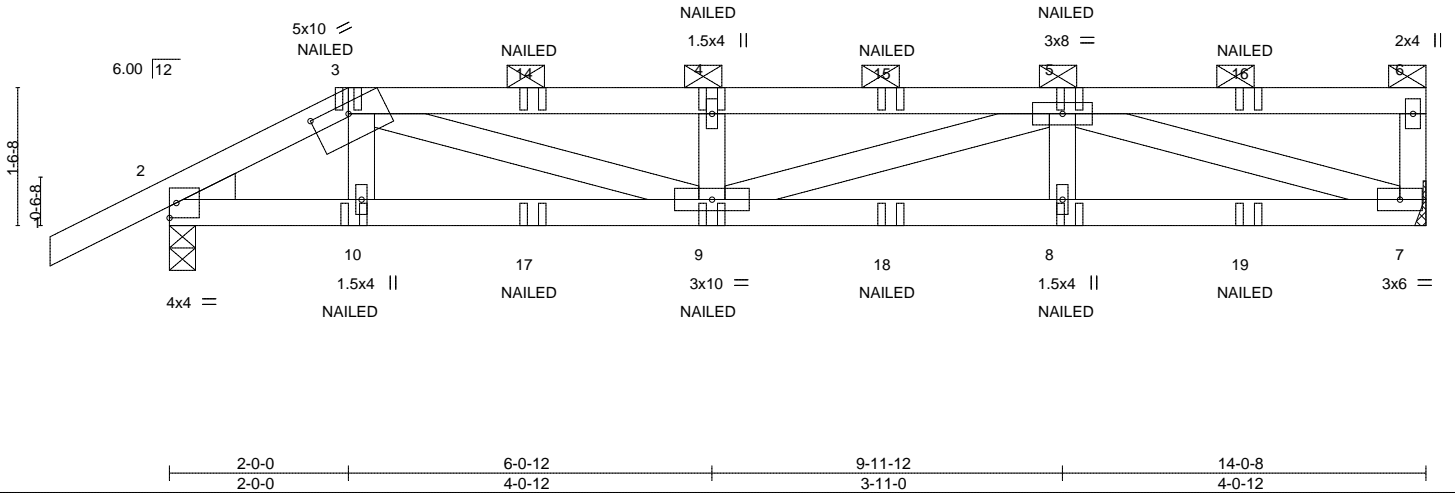ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-leen9xHcYKhdJ1_kUGqYk96ISecrWiedljJgs4y6kdW
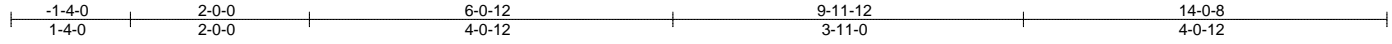
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Plate Offsets (X,Y)--   [3:0-5-0,0-1-7]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.10	8-9	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.55	Vert(TL)	-0.19	8-9	>861	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.60	Horz(TL)	0.04	7	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MS		Wind(LL)	0.04	8-9	>999	240	Weight: 68 lb	FT = 20%
BCDL	10.0											

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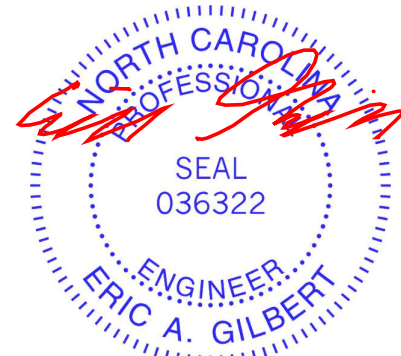WEBS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 5-3-13 oc purlins,
                       except end verticals, and 2-0-0 oc purlins (3-7-13 max.): 3-6.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   7=542/Mechanical, 2=631/0-3-8
              Max Horz   2=55(LC 8)
              Max Uplift   7=-19(LC 7), 2=-15(LC 8)
              Max Grav   7=734(LC 13), 2=678(LC 13)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1094/21, 3-4=-2037/55, 4-5=-2037/55
BOT CHORD   2-10=-24/949, 9-10=-20/949, 8-9=-45/1700, 7-8=-45/1700
WEBS   3-9=-49/1139, 4-9=-366/63, 5-9=-11/354, 5-7=-1694/45

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise); cantilever left and
    right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; 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.
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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
    will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)   Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

December 26,2018

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Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	G15	Half Hip Girder	1	1		E12549280
					Job Reference (optional)	

LOAD CASE(S) Standard
    Uniform Loads (plf)
        Vert: 1-3=-60, 3-6=-60, 7-11=-20
    Concentrated Loads (lb)
        Vert: 10=3(F) 9=3(F) 8=3(F) 17=3(F) 18=3(F) 19=3(F)

ENGINEERING BY
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A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	E12549281
1625535_Jill_RF	H1	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:01 2018 Page 1
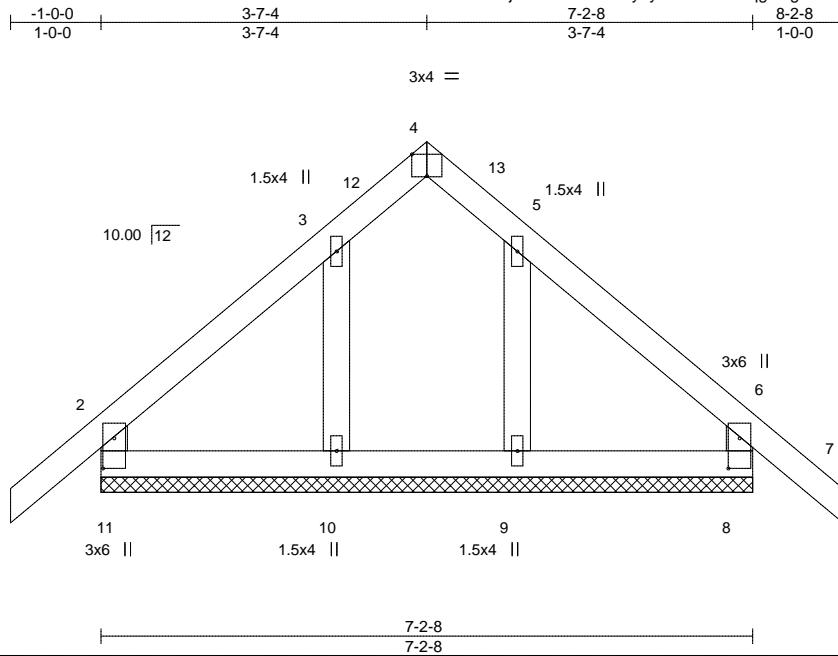ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-WA7oqgOdgohVHGcGxy_Q2rRlctSWOTYobzF58dy6kdO

Scale = 1:25.5

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	7	n/r	120	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	-0.00	7	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.00	8	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-R							Weight: 37 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, except end verticals.
BOT CHORD	2x4 SP No.2		
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
OTHERS	2x4 SP No.3		

REACTIONS.   All bearings 7-2-8.
  (lb) - Max Horz   11=65(LC 9)
        Max Uplift   All uplift 100 lb or less at joint(s) 11, 8, 10, 9
        Max Grav   All reactions 250 lb or less at joint(s) 11, 8, 10, 9

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Corner(3)
   -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 3-7-4, Corner(3) 3-7-4 to 6-7-4, Exterior(2) 6-7-4 to 8-2-8 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-05; 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
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs
   non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
    will fit between the bottom chord and any other members.
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11, 8, 10, and 9.
    This connection is for uplift only and does not consider lateral forces.

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	H2	Roof Special Girder	1	**2**		E12549282
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001
8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:01 2018 Page 1
ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-WA7oqgOdgohVHGcGxy_Q2rRl7tKyOLpobzF58dy6kdO

3-8-1 | 7-2-8
3-8-1 | 3-6-7

Scale = 1:42.0

3-8-1 | 7-2-8
3-8-1 | 3-6-7

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.01	4-8	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.54	Vert(TL)	-0.03	4-8	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.52	Horz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-MS		Wind(LL)	0.00	4-8	>999	240	Weight: 103 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.2
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

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

REACTIONS.   (lb/size)   3=2610/0-3-8, 5=3154/0-3-8
              Max Horz 5=-156(LC 9)
              Max Grav 3=2660(LC 4), 5=3154(LC 1)
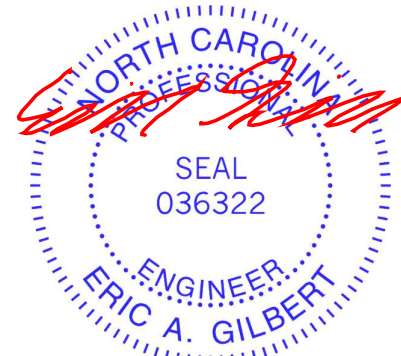
FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2104/0
BOT CHORD   4-5=0/1589, 3-4=0/1589
WEBS   2-5=-2144/0, 2-4=0/2517

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to
   ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise); cantilever left and
   right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-05; 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
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
8) Use Simpson Strong-Tie MUS26 (6-10d Girder, 4-10d Truss) or equivalent spaced at 2-3-4 oc max. starting at 0-1-12 from the left
   end to 4-5-0 to connect truss(es) to back face of bottom chord.
9) Use Simpson Strong-Tie MUS26 (6-10d Girder, 6-10d Truss) or equivalent at 6-5-0 from the left end to connect truss(es) to back
   face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
						E12549282
1625535_Jill_RF	H2	Roof Special Girder	1	**2**		
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:02 2018 Page 2
ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-_NgB1OOFR5pMuQATVfVfb2_wtGgB7o3ypd?eg3y6kdN

LOAD CASE(S) Standard
    Uniform Loads (plf)
        Vert: 1-3=-60, 5-6=-20
    Concentrated Loads (lb)
        Vert: 5=-1321(B) 10=-1314(B) 11=-1314(B) 12=-1251(B)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	V1	GABLE	1	1		E12549283
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:02 2018 Page 1
ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-_NgB10OFR5pMuQATVfVfb2_vlGnP7u3ypd?eg3y6kdN

9-7-10 | 11-11-4
9-7-10 | 2-3-10

4x6 ═

Scale = 1:50.5

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(TL)	0.00	7	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-S							Weight: 78 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   All bearings 11-11-4.
       (lb) - Max Horz 1=174(LC 10)
               Max Uplift   All uplift 100 lb or less at joint(s) 1, 7, 9, 10, 11
               Max Grav   All reactions 250 lb or less at joint(s) 1, 7, 8, 9, 10 except 11=264(LC 14)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   0-4-13 to 3-7-10, Interior(1) 3-7-10 to 9-7-10, Exterior(2) 9-7-10 to 11-9-8 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
3) TCLL: ASCE 7-05; 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) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 7, 9, 10, and
   11. This connection is for uplift only and does not consider lateral forces.

NORTH CAROLINA
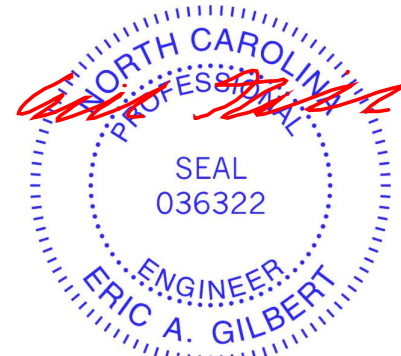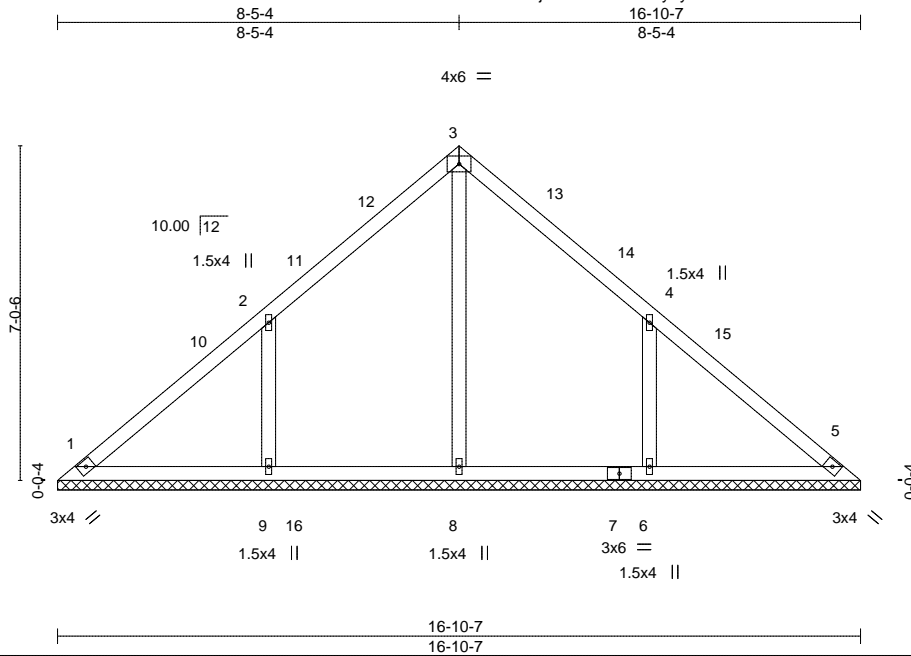PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

December 26,2018

ENGINEERING BY
TRENCO
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	V2	Valley	1	1		E12549284
					Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

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ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-SZEZFMPtCPxCWalf3N0u8GW3qg5psMT52HkCDVy6kdM

8-5-4
16-10-7
8-5-4
8-5-4

4x6

Scale: 1/4"=1'

16-10-7
16-10-7

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-S							Weight: 75 lb	FT = 20%
BCDL	10.0											

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 16-10-7.
(lb) - Max Horz 1=-154(LC 8)
Max Uplift   All uplift 100 lb or less at joint(s) 1 except 9=-104(LC 10), 6=-104(LC 11)
Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 8=397(LC 1), 9=436(LC 14), 6=434(LC 15)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-9=-284/193, 4-6=-284/193

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 8-5-4, Exterior(2) 8-5-4 to 11-5-4, Interior(1) 11-5-4 to 16-5-10 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
3) TCLL: ASCE 7-05; 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) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 9, and 6. This connection is for uplift only and does not consider lateral forces.
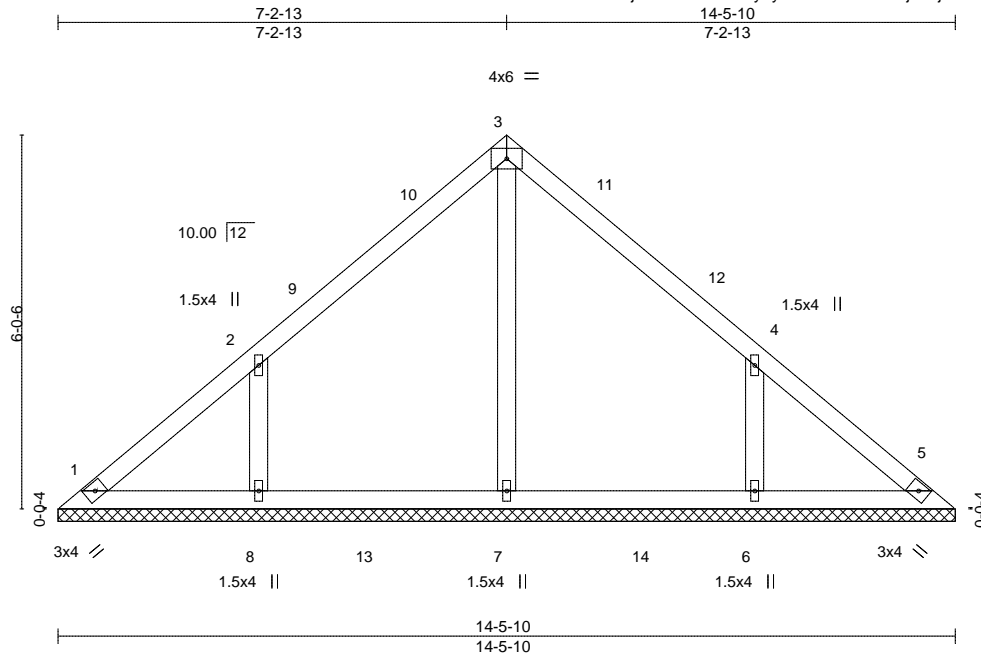
NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	V3	Valley	1	1		E12549285
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:04 2018 Page 1
ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-wloxSiQVzj338jKrd4X7gT3FW4SSbp9FHxUIlyy6kdL

7-2-13 · 14-5-10
7-2-13 · 7-2-13

4x6

Scale = 1:37.2

6-0-6

14-5-10
14-5-10

LOADING (psf)

		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-S							Weight: 62 lb	FT = 20%
BCDL	10.0											

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 14-5-10.

(lb) - Max Horz 1=-131(LC 8)
Max Uplift   All uplift 100 lb or less at joint(s) 1, 8, 6
Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=385(LC 1), 8=345(LC 14), 6=345(LC 15)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   0-4-13 to 3-2-13, Interior(1) 3-2-13 to 7-2-13, Exterior(2) 7-2-13 to 10-2-13, Interior(1) 10-2-13 to 14-0-13 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
3) TCLL: ASCE 7-05; 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) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 8, and 6. This
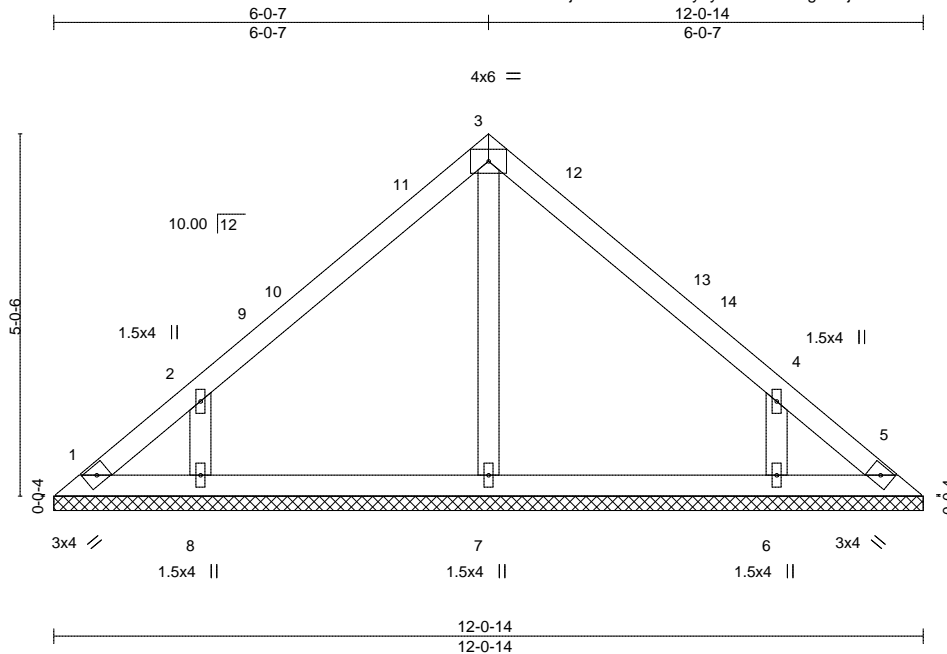   connection is for uplift only and does not consider lateral forces.

NORTH CAROLINA
PROFESSIONAL
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ERIC A. GILBERT

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	V4	Valley	1	1		E12549286
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:05 2018 Page 1
ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-OxMJg2R7j0Bwltv2Ao2MDhcQFUpNKGsOVbDIHOy6kdK

6-0-7   12-0-14
6-0-7   6-0-7

4x6 ═

Scale: 3/8"=1'

10.00 |12

LOADING (psf)

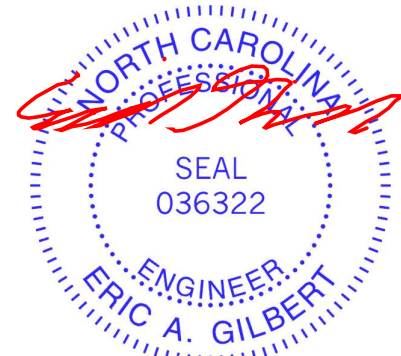|		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999		MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999			
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(TL)	0.00	5	n/a	n/a			
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-S								Weight: 50 lb	FT = 20%
BCDL	10.0												

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 12-0-14.
(lb) -   Max Horz 1=-108(LC 8)
Max Uplift   All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav   All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=295(LC 14), 6=295(LC 15)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   0-4-13 to 3-4-13, Interior(1) 3-4-13 to 6-0-7, Exterior(2) 6-0-7 to 9-0-7, Interior(1) 9-0-7 to 11-8-0 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
3) TCLL: ASCE 7-05; 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) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 5, 8, and 6.
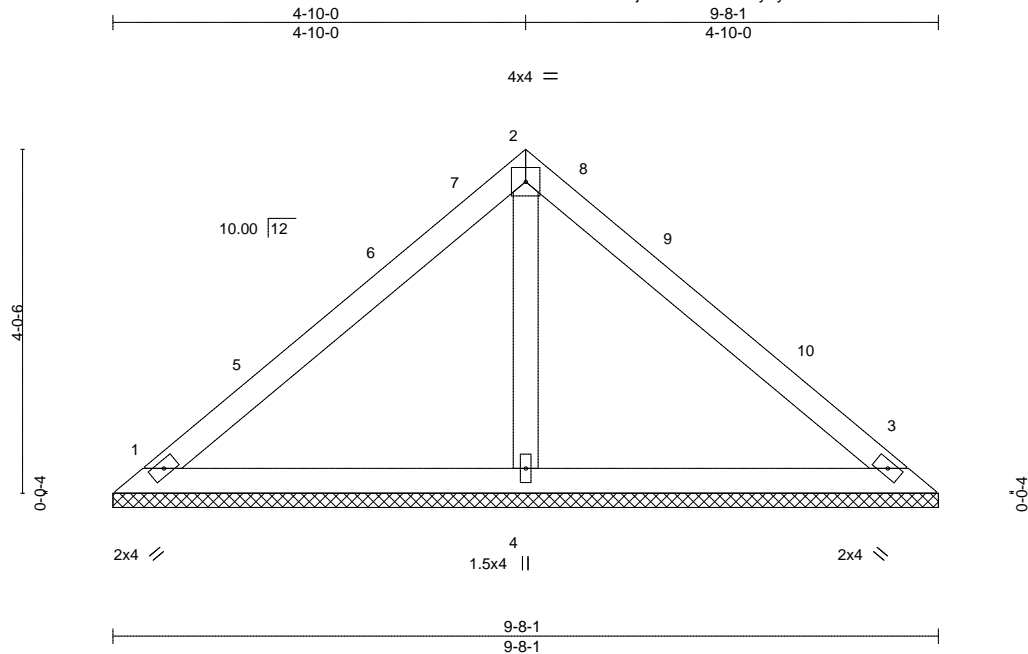   This connection is for uplift only and does not consider lateral forces.

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	E12549287
1625535_Jill_RF	V5	Valley	1	1	Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:06 2018 Page 1
ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-t8whtNSlUKJnN1UEkVZblu8ZSu7R3kEXkFzsqqy6kdJ

4-10-0   9-8-1
4-10-0   4-10-0

4x4 ═

Scale = 1:27.0

10.00 �12

4-0-6

0-0-4

2x4 ╱╱   4   2x4 ╲╲
1.5x4 ‖

9-8-1
9-8-1

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-S							Weight: 37 lb	FT = 20%
BCDL	10.0											

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=188/9-8-1, 3=188/9-8-1, 4=334/9-8-1
          Max Horz 1=-85(LC 8)
          Max Uplift 1=-7(LC 11), 3=-14(LC 11)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) and C-C Exterior(2)
   0-4-13 to 3-4-13, Interior(1) 3-4-13 to 4-10-0, Exterior(2) 4-10-0 to 7-10-0, Interior(1) 7-10-0 to 9-3-3 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
3) TCLL: ASCE 7-05; 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) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This
   connection is for uplift only and does not consider lateral forces.
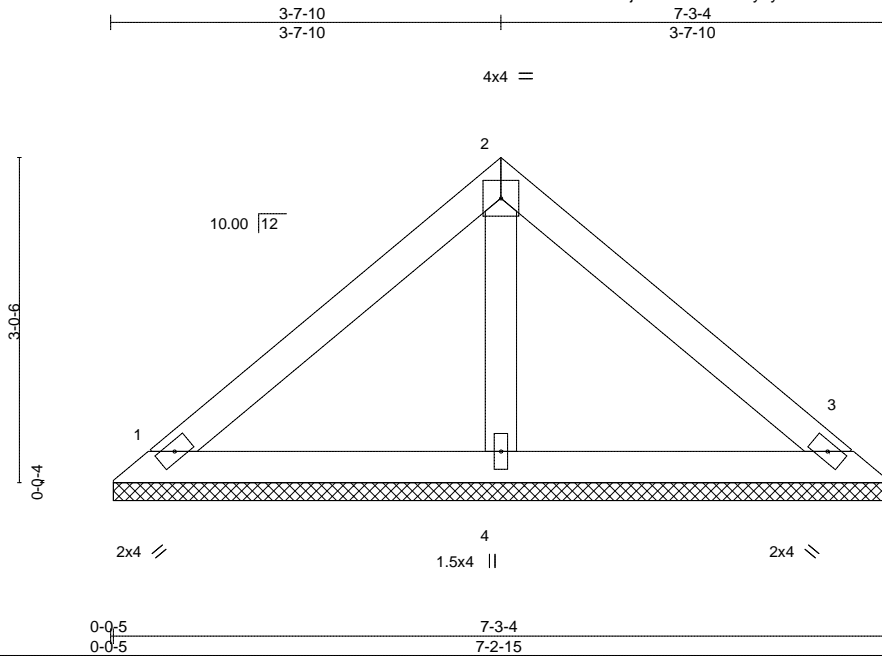
NORTH CAROLINA
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ERIC A. GILBERT
ENGINEER

December 26,2018

ENGINEERING BY
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	V6	Valley	1	1		E12549288
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:06 2018 Page 1
ID:4lmeeSjiwdRzCfsAnBfHyaylMmJ-t8whtNSlUKJnN1UEkVZblu8bcu9t3kfXkFzsqqy6kdJ

3-7-10
3-7-10

7-3-4
3-7-10

4x4 ═

Scale = 1:21.5

10.00 ‾12‾

3-0-6

0-0-4

2

1

3

4

0-0-4

2x4 ∥

1.5x4 ‖

2x4 ∖

0-0-5
0-0-5

7-3-4
7-2-15

LOADING (psf)
TCLL (roof)   20.0
Snow (Pf/Pg)   15.4/20.0
TCDL   10.0
BCLL   0.0 *
BCDL   10.0

SPACING-   2-0-0
Plate Grip DOL   1.15
Lumber DOL   1.15
Rep Stress Incr   YES
Code IRC2009/TPI2007

CSI.
TC   0.14
BC   0.11
WB   0.03
Matrix-S

DEFL.   in   (loc)   l/defl   L/d
Vert(LL)   n/a   -   n/a   999
Vert(TL)   n/a   -   n/a   999
Horz(TL)   0.00   3   n/a   n/a

PLATES   **GRIP**
MT20   244/190

Weight: 27 lb   FT = 20%

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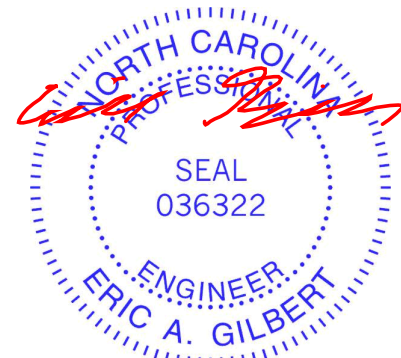OTHERS   2x4 SP No.3

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=137/7-2-10, 3=137/7-2-10, 4=243/7-2-10
Max Horz 1=-62(LC 8)
Max Uplift 1=-5(LC 11), 3=-10(LC 11)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) 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
3) TCLL: ASCE 7-05; 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) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.

NORTH CAROLINA
PROFESSIONAL
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December 26,2018

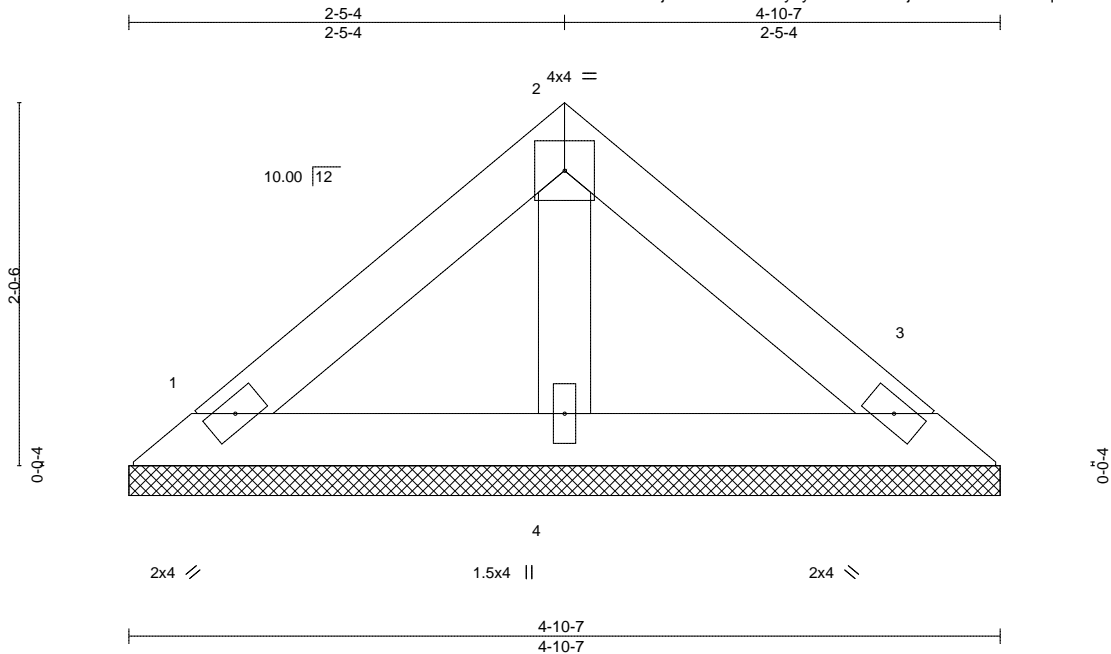ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	
1625535_Jill_RF	V7	Valley	1	1		E12549289
					Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001   8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:07 2018 Page 1
ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-LKU45jSOFeRe?B3QID4ql6hnQHV6oBAhzviPMGy6kdI

LOADING (psf)
TCLL (roof)   20.0
Snow (Pf/Pg) 15.4/20.0
TCDL   10.0
BCLL   0.0 *
BCDL   10.0

SPACING-   2-0-0
Plate Grip DOL   1.15
Lumber DOL   1.15
Rep Stress Incr   YES
Code IRC2009/TPI2007

CSI.
TC   0.07
BC   0.04
WB   0.02
Matrix-P

DEFL.   in   (loc)   l/defl   L/d
Vert(LL)   n/a   -   n/a   999
Vert(TL)   n/a   -   n/a   999
Horz(TL)   0.00   3   n/a   n/a

PLATES   **GRIP**
MT20   244/190

Weight: 17 lb   FT = 20%

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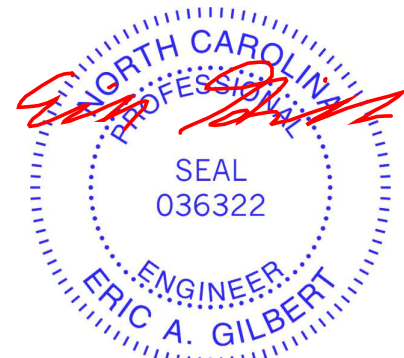BOT CHORD   2x4 SP No.2
OTHERS   2x4 SP No.3

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

REACTIONS.   (lb/size)   1=93/4-10-7, 3=93/4-10-7, 4=139/4-10-7
Max Horz 1=-39(LC 8)
Max Uplift 1=-7(LC 11), 3=-10(LC 11)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) 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
3) TCLL: ASCE 7-05; 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) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.

December 26,2018

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Sturtz Homes	E12549290
1625535_Jill_RF	V8	Valley	1	1	Job Reference (optional)	

Builders FirstSource,   Albemarle , NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Dec 21 12:47:08 2018 Page 1
ID:4ImeeSjiwdRzCfsAnBfHyaylMmJ-pW2SI3T00xZVcLecswc3rJEz8hrXXehqCZSzujy6kdH
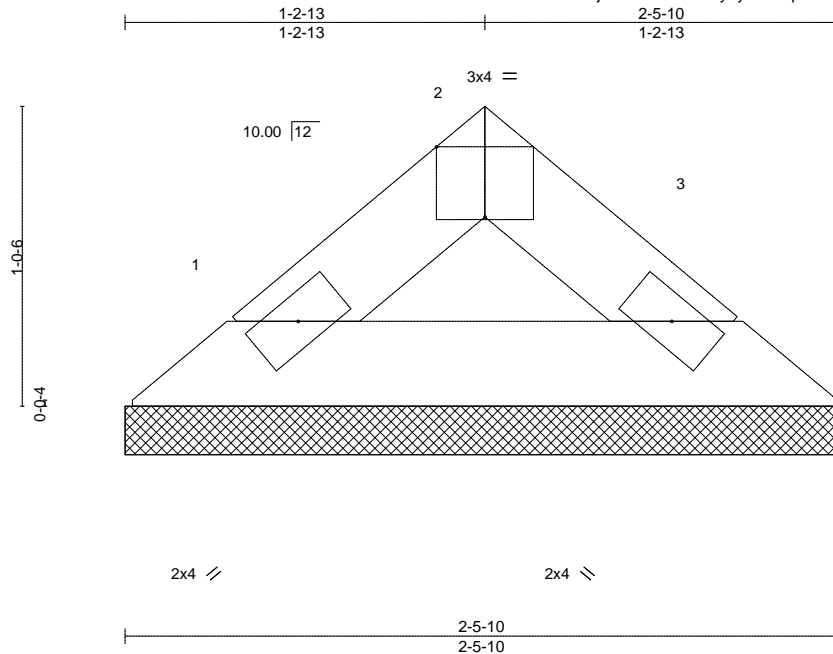
Scale = 1:7.9

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.01	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		Matrix-P								
BCDL	10.0										Weight: 7 lb	FT = 20%

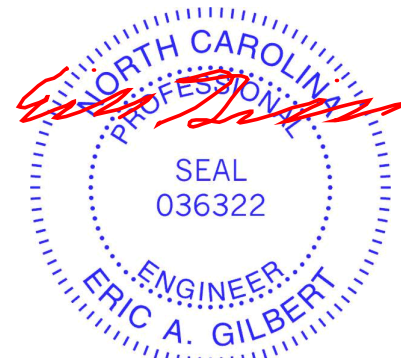LUMBER-
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 2-5-10 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   1=67/2-5-10, 3=67/2-5-10
              Max Horz 1=-16(LC 6)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (low-rise) 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
3) TCLL: ASCE 7-05; 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; Min. flat roof snow load governs.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

December 26,2018

ENGINEERING BY
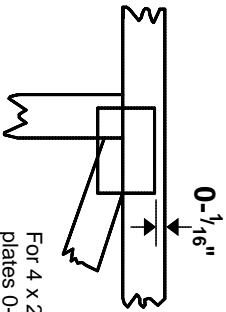TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Symbols

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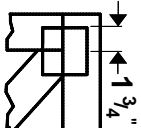
Center plate on joint unless x, y offsets are indicated.
Dimensions are in ft-in-sixteenths.
Apply plates to both sides of truss and fully embed teeth.

1 ³/₄"

0-¹/₁₆"

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

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

* **Plate location details available in MiTek 20/20 software or upon request.**
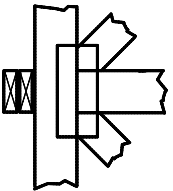
PLATE SIZE

4 x 4

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

LATERAL BRACING LOCATION

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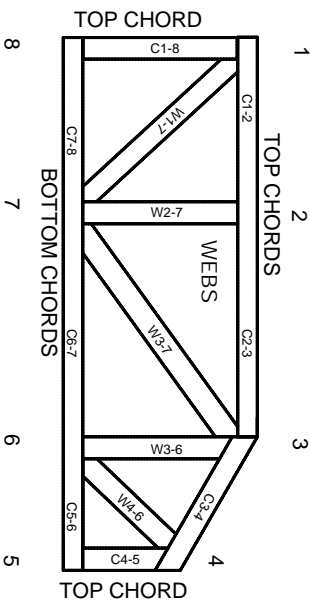
BEARING

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

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Numbering System

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

6-4-8

TOP CHORD

1   2   TOP CHORDS   3

C1-8   C1-2   C2-3   C3-4

C7-8   W1-7   W2-7   WEBS   W3-7   W3-6   W4-6   C5-6

C6-7

BOTTOM CHORDS

8   7   6   5

C4-5

4

TOP CHORD

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.

⚠️ # 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 T or 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.