ENGINEERING BY TRENCO

A MiTek Affiliate

Re: 21570A

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I37842498 thru I37842527

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

North Carolina COA: C-0844

NORTH CAROLINA
PROFESSIONAL
SEAL
45844
ANDREW JOHNSON
ENGINEER

July 18,2019

Johnson, Andrew

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

Job	Truss	Truss Type	Qty	Ply		I37842498
21570A	AE	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:05 2019 Page 1
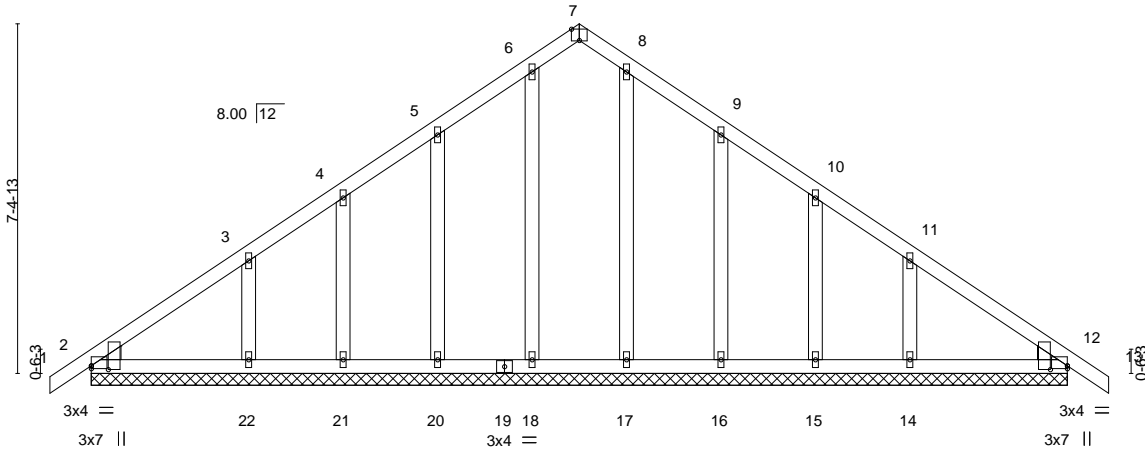ID:0ckUA53Thu5GUjfQqCaouPyZBFs-nS3j3yUpnYYA4uzSScoYNCECJAIkPKZEvcUV?8ywsOi

-0-10-8   10-4-0   20-8-0   21-6-8
0-10-8   10-4-0   10-4-0   0-10-8

3x4 ═

Scale = 1:48.8

20-8-0
20-8-0
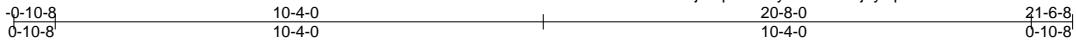
Plate Offsets (X,Y)--   [2:0-0-15,0-4-5], [2:0-0-0,0-0-12], [7:0-2-0,Edge], [12:Edge,0-0-12], [12:0-0-15,0-4-5]
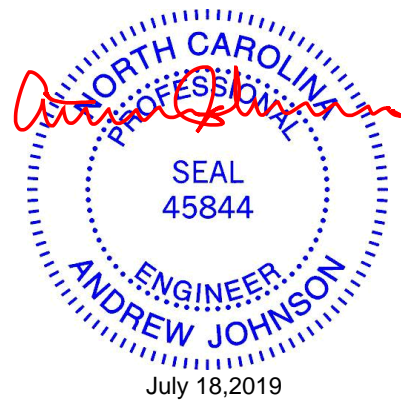
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	13	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.01	13	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 123 lb	FT = 20%

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

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

REACTIONS.   All bearings 20-8-0.
(lb) -   Max Horz 2=185(LC 11)
Max Uplift   All uplift 100 lb or less at joint(s) 2, 18, 20, 21, 16, 15 except 22=-115(LC 12), 14=-114(LC 13)
Max Grav   All reactions 250 lb or less at joint(s) 2, 18, 20, 21, 17, 16, 15, 12 except 22=281(LC 19), 14=279(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 10-4-0, Corner(3) 10-4-0 to 13-4-0, Exterior(2) 13-4-0 to 21-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 18, 20, 21, 16, 15 except (jt=lb) 22=115, 14=114.

July 18,2019

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ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply		I37842499
21570A	AG	COMMON GIRDER	1	**3**	Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:07 2019 Page 1
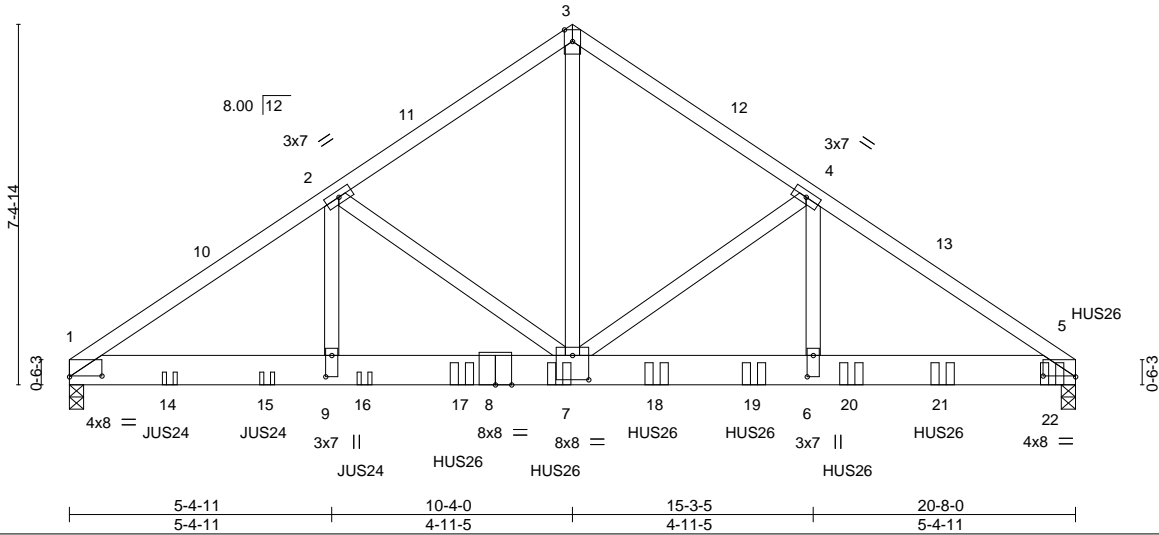ID:0ckUA53Thu5GUjfQqCaouPyZBFs-jrATUeV3JAouKB7ra1r0TdKQU_nRt02XMwzb41ywsOg
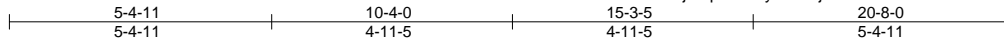
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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.08	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.16	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 412 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2
BOT CHORD   2x8 SP No.2
WEBS   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=5024/0-3-8, 5=7786/0-3-8
Max Horz 1=171(LC 34)
Max Uplift 1=-747(LC 12), 5=-1069(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-7958/1176, 2-3=-6398/976, 3-4=-6398/976, 4-5=-9895/1386
BOT CHORD   1-9=-989/6474, 7-9=-989/6474, 6-7=-1066/8087, 5-6=-1066/8087
WEBS   3-7=-969/6713, 4-7=-3526/609, 4-6=-462/3876, 2-7=-1526/393, 2-9=-215/1561

NOTES-
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x8 - 4 rows staggered at 0-4-0 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-4-0, Exterior(2) 10-4-0 to 13-4-0,
   Interior(1) 13-4-0 to 20-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
   MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   1=747, 5=1069.
8) Use USP JUS24 (With 10d nails into Girder & 10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the
   left end to 6-0-12 to connect truss(es) to back face of bottom chord.
9) Use USP HUS26 (With 16d nails into Girder & 16d nails into Truss) or equivalent spaced at 2-3-0 oc max. starting at 8-0-12 from the
   left end to 20-2-4 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

July 18,2019

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply		I37842499
21570A	AG	COMMON GIRDER	1	**3**	Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:07 2019 Page 2
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-jrATUeV3JAouKB7ra1r0TdKQU_nRt02XMwzb41ywsOg

LOAD CASE(S) Standard
    Uniform Loads (plf)
        Vert: 1-3=-60, 3-5=-60, 1-5=-20
    Concentrated Loads (lb)
        Vert: 7=-1396(B) 14=-466(B) 15=-466(B) 16=-466(B) 17=-1396(B) 18=-1396(B) 19=-1396(B) 20=-1396(B) 21=-1396(B) 22=-1403(B)

Job	Truss	Truss Type	Qty	Ply		I37842500
21570A	BE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

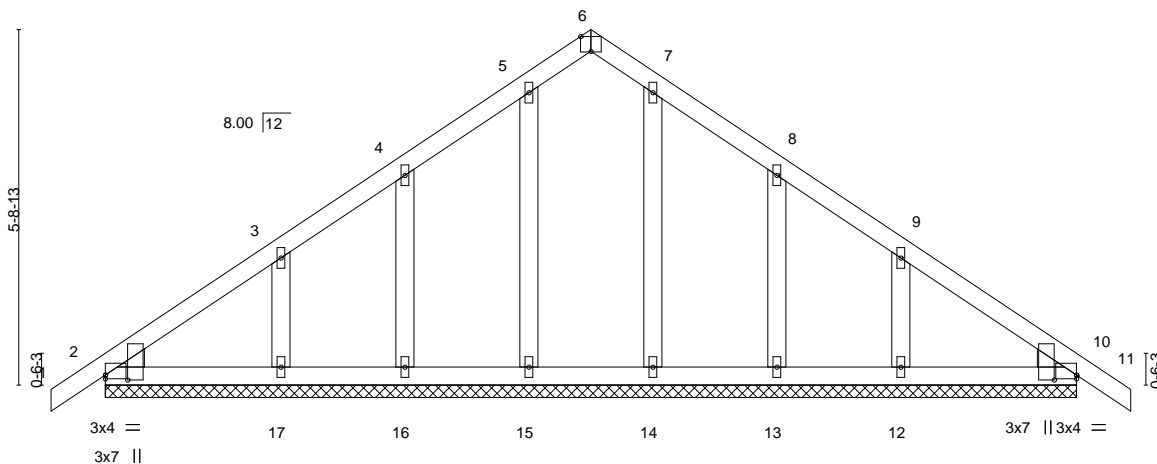84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:08 2019 Page 1
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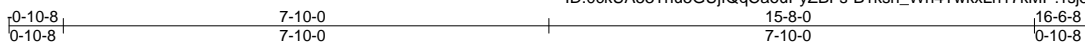
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Plate Offsets (X,Y)--   [2:0-0-15,0-4-5], [2:0-0-0,0-0-12], [6:0-2-0,Edge], [10:Edge,0-0-12], [10:0-0-15,0-4-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	10	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 85 lb	FT = 20%

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

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

REACTIONS.   All bearings 15-8-0.
   (lb) -   Max Horz 2=144(LC 11)
              Max Uplift   All uplift 100 lb or less at joint(s) 15, 16, 17, 14, 13, 12
              Max Grav   All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 14, 13, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 7-10-0, Corner(3) 7-10-0 to 10-10-0,
   Exterior(2) 10-10-0 to 16-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces
   & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 16, 17, 14, 13,
   12.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

July 18,2019

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Edenton, NC 27932

ID:0ckUA53Thu5GUjfQqCaouPyZBFs-7Qsc6gYyc5ASBfrQF9Oj4Gy?uBwR4NHz2tCGgMywsOd

Scale = 1:36.9

Plate Offsets (X,Y)-- [1:0-3-6,0-1-8], [5:0-3-6,0-1-8], [6:0-4-4,0-1-8], [7:0-4-0,0-4-4], [8:0-4-4,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.06	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.12	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.96	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 278 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2
BOT CHORD   2x6 SP DSS
WEBS   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=6686/0-3-8, 5=6502/0-3-8
Max Horz 1=132(LC 34)
Max Uplift 1=-829(LC 12), 5=-806(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-9477/1204, 2-3=-6529/887, 3-4=-6528/887, 4-5=-9499/1207
BOT CHORD   1-8=-983/7658, 7-8=-983/7658, 6-7=-921/7673, 5-6=-921/7673
WEBS   3-7=-894/6941, 4-7=-2891/460, 4-6=-382/3460, 2-7=-2872/457, 2-8=-378/3431

NOTES-
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-10-0, Exterior(2) 7-10-0 to 10-10-0,
   Interior(1) 10-10-0 to 15-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces
   & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   1=829, 5=806.
8) Use USP HUS26 (With 16d nails into Girder & 16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-8-12 from the
   left end to 13-8-12 to connect truss(es) to back face of bottom chord.
9) 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
   Uniform Loads (plf)
        Vert: 1-3=-60, 3-5=-60, 1-5=-20

July 18,2019

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
21570A	BG	COMMON GIRDER	1	**3**	I37842501
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:10 2019 Page 2
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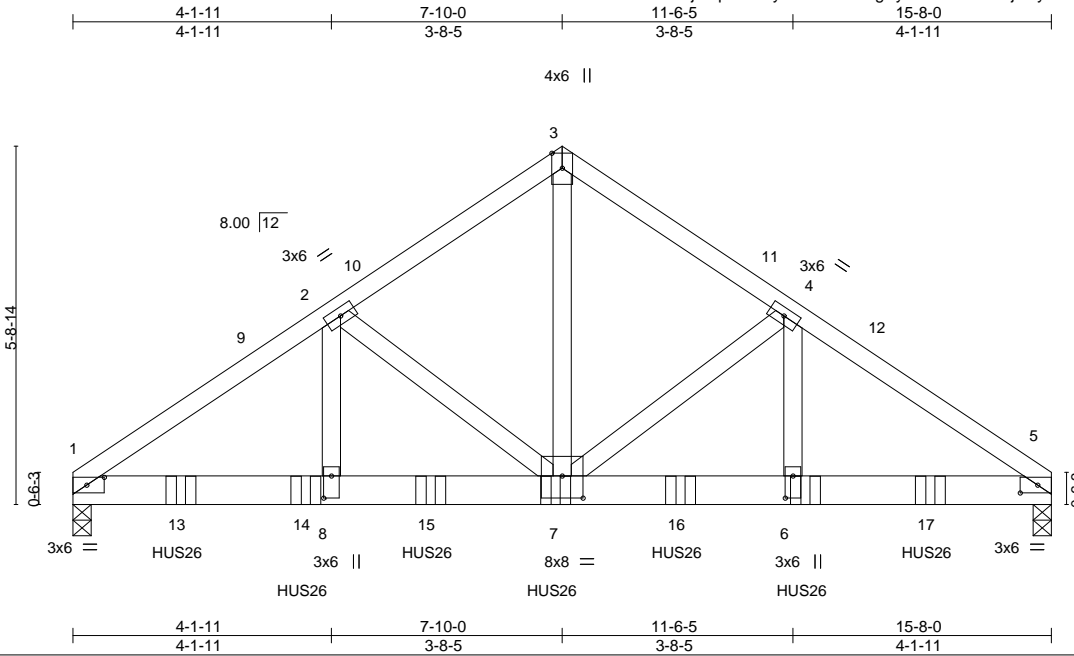
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 7=-1708(B) 6=-1708(B) 13=-1708(B) 14=-1708(B) 15=-1708(B) 16=-1708(B) 17=-1708(B)

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply		I37842502
21570A	C1	COMMON	3	1		
					Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,
8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:11 2019 Page 1
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0-10-8   5-5-3   5-2-13   5-2-13   5-5-3   0-10-8

4x6 ||

Scale = 1:50.6

8.00 12

1.5x4 \\

1.5x4 //

7-7-8

0-6-3

3x4 =

3x7 ||

3x4 =

3x4 =

3x4 =

3x4 =

3x7 ||

7-2-2   14-1-14   21-4-0
7-2-2   6-11-13   7-2-2
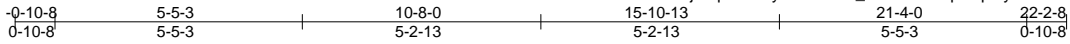
Plate Offsets (X,Y)--   [2:0-0-0,0-0-12], [2:0-0-15,0-4-5], [6:0-0-0,0-0-12], [6:0-0-15,0-4-5]

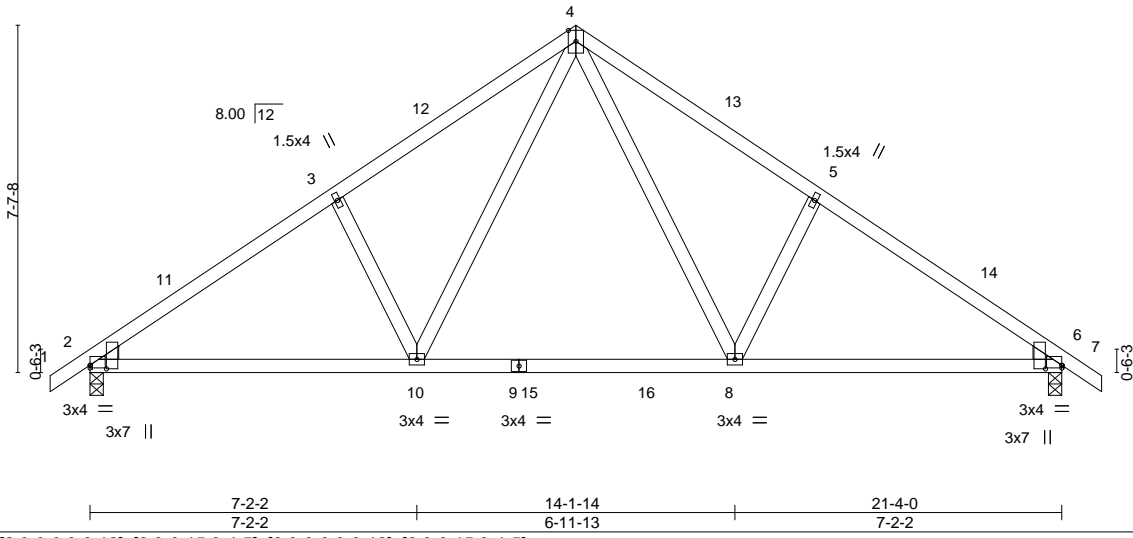| LOADING (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.11	8-10	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.15	8-10	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.03	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 110 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, Right: 2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 4-11-14 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   2=903/0-3-8, 6=903/0-3-8
Max Horz   2=-190(LC 10)
Max Uplift   2=-111(LC 12), 6=-111(LC 13)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1194/148, 3-4=-1052/208, 4-5=-1053/208, 5-6=-1194/148
BOT CHORD   2-10=-147/1012, 8-10=0/661, 6-8=-38/906
WEBS   4-8=-124/522, 5-8=-294/218, 4-10=-124/522, 3-10=-294/218

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-8-0, Exterior(2) 10-8-0 to 13-8-0,
   Interior(1) 13-8-0 to 22-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
   MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   2=111.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only
   and does not consider lateral forces.

July 18,2019

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply		I37842503
21570A	CE	COMMON SUPPORTED GAB	1	1		
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:12 2019 Page 1
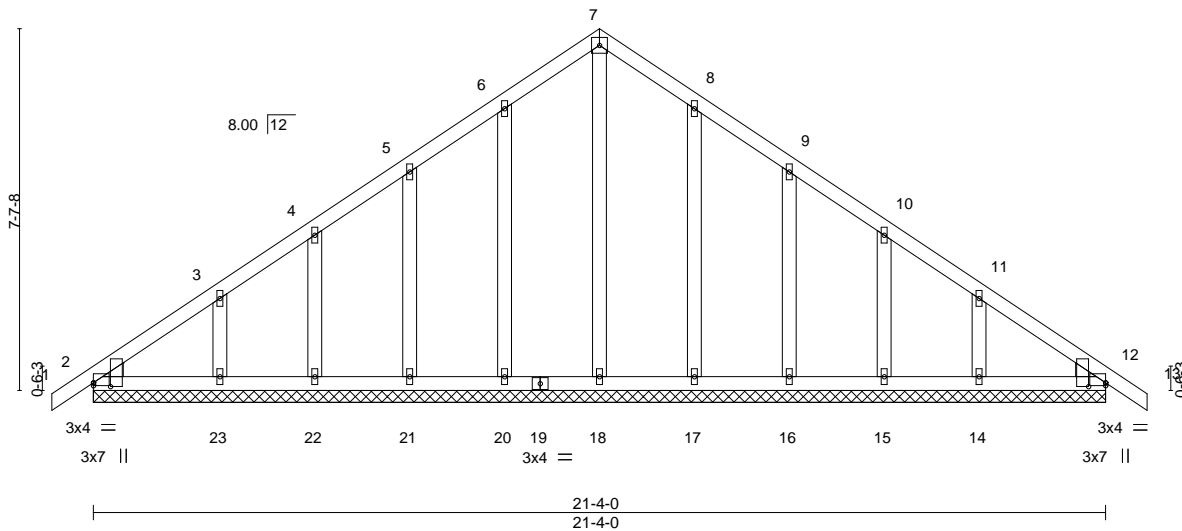ID:0ckUA53Thu5GUjfQqCaouPyZBFs-4o_MXMZC8iQAQz?oMaQBAh1PC?iqYTaGWBhMlEywsOb
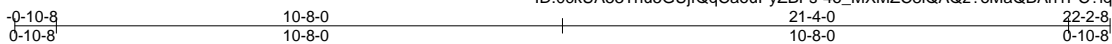
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Plate Offsets (X,Y)--   [2:0-0-0,0-0-12], [2:0-0-15,0-4-5], [12:0-0-0,0-0-12], [12:0-0-15,0-4-5]

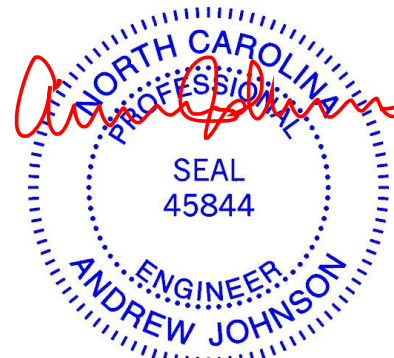| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	13	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 130 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.2
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3, Right: 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 21-4-0.
       (lb) - Max Horz 2=-190(LC 10)
               Max Uplift   All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 17, 16, 15, 14
               Max Grav   All reactions 250 lb or less at joint(s) 2, 18, 20, 21, 22, 23, 17, 16, 15, 14, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 10-8-0, Corner(3) 10-8-0 to 13-8-0,
   Exterior(2) 13-8-0 to 22-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces
   & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 23,
   17, 16, 15, 14.

July 18,2019

ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

ID:0ckUA53Thu5GUjfQqCaouPyZBFs-0B67y1bSgJgufG9BU?TfF66aHpHi0DEZzVATp7ywsOZ

5-9-12	10-8-0	15-6-4	21-4-0
5-9-12	4-10-4	4-10-4	5-9-12

4x6 ||

Scale = 1:48.7

8.00 ⌐12

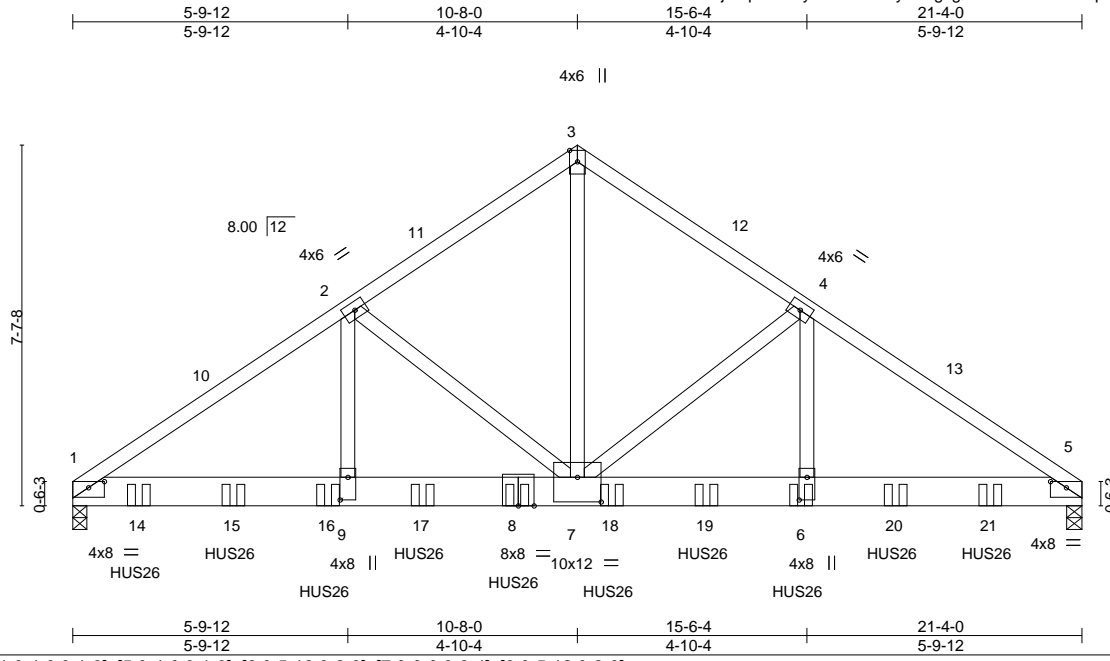| 5-9-12	10-8-0	15-6-4	21-4-0
5-9-12	4-10-4	4-10-4	5-9-12

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.09	7-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.19	7-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 426 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x8 SP DSS
WEBS   2x4 SP No.3 *Except*
            3-7: 2x4 SP No.2

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 5-10-8 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   1=8952/0-3-9, 5=9064/0-3-14
              Max Horz 1=-177(LC 33)
              Max Uplift 1=-1153(LC 12), 5=-1133(LC 13)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-12556/1617, 2-3=-8826/1196, 3-4=-8826/1196, 4-5=-12919/1636
BOT CHORD   1-9=-1349/10277, 7-9=-1349/10277, 6-7=-1265/10569, 5-6=-1265/10569
WEBS   3-7=-1217/9409, 4-7=-4241/663, 4-6=-530/4787, 2-7=-3866/643, 2-9=-505/4335

NOTES-
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-8-0, Exterior(2) 10-8-0 to 13-8-0,
   Interior(1) 13-8-0 to 21-2-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
   MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   1=1153, 5=1133.
8) Use USP HUS26 (With 16d nails into Girder & 16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-4-12 from the
   left end to 19-4-12 to connect truss(es) to front face of bottom chord.
9) 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
   Uniform Loads (plf)
        Vert: 1-3=-60, 3-5=-60, 1-5=-20

July 18,2019

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TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
21570A	CG	COMMON GIRDER	1	**3**	I37842504
					Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 8=-1708(F) 6=-1708(F) 14=-1459(F) 15=-1459(F) 16=-1459(F) 17=-1708(F) 18=-1708(F) 19=-1708(F) 20=-1708(F) 21=-1708(F)

Job	Truss	Truss Type	Qty	Ply		I37842505
21570A	T1	COMMON	3	1		
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:15 2019 Page 1
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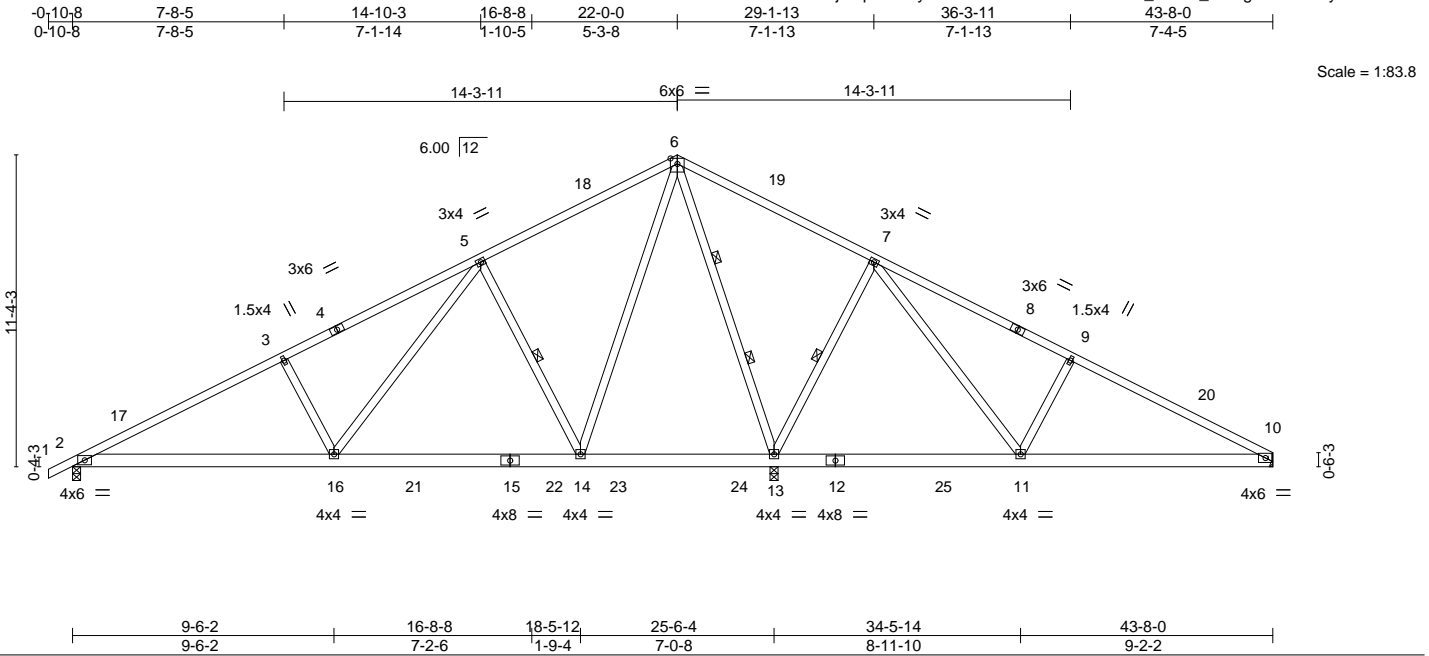
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.09	14-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.16	2-16	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.01	13	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 271 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 4-2-11 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   1 Row at midpt   7-13, 5-14
             2 Rows at 1/3 pts   6-13

REACTIONS.   (lb/size)   13=2290/0-3-8, 10=400/Mechanical, 2=847/0-3-8
Max Horz 2=199(LC 12)
Max Uplift 13=-209(LC 12), 10=-84(LC 13), 2=-140(LC 12)
Max Grav 13=2336(LC 2), 10=486(LC 24), 2=889(LC 23)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1339/203, 3-5=-1138/242, 5-6=-310/165, 6-7=0/801, 7-9=-398/172, 9-10=-595/131
BOT CHORD   2-16=-275/1111, 14-16=-90/543, 13-14=-215/285, 11-13=-342/160, 10-11=-38/449
WEBS   3-16=-405/240, 5-16=-132/736, 6-14=-191/929, 6-13=-1538/233, 7-13=-740/308,
             7-11=-131/714, 9-11=-408/246, 5-14=-750/310

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 22-0-0, Exterior(2) 22-0-0 to 25-0-0,
   Interior(1) 25-0-0 to 43-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
   MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb)
   2=140.
7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift
   only and does not consider lateral forces.

July 18,2019

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
21570A	T1E	COMMON SUPPORTED GAB	1	1	I37842506
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:17 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-QmnFa3dLyE2TWktm970MskkGf0PBDke?fTO7QSywsOW

-0-10-8 22-0-0 43-8-0
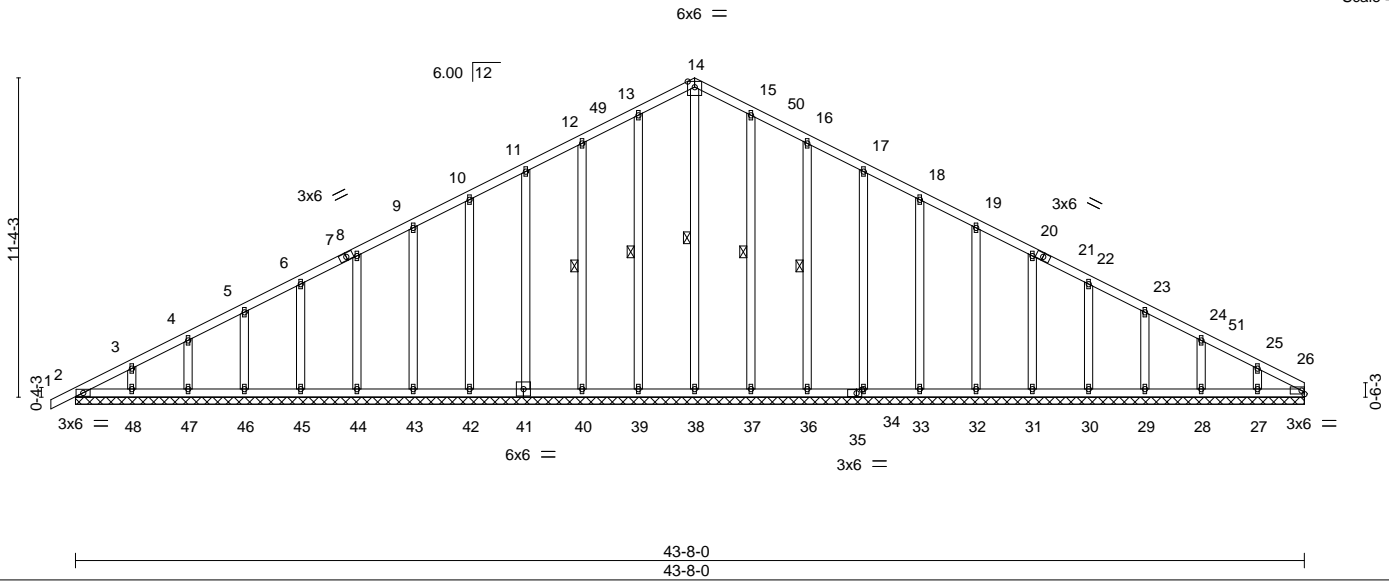0-10-8 22-0-0 21-8-0

Scale = 1:81.9

43-8-0
43-8-0

Plate Offsets (X,Y)-- [35:0-2-4,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	26	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 313 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   14-38, 13-39, 12-40, 15-37, 16-36

REACTIONS.   All bearings 43-8-0.
(lb) -   Max Horz 2=197(LC 16)
Max Uplift   All uplift 100 lb or less at joint(s) 2, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 37, 36, 34, 33, 32, 31, 30, 29, 28, 27
Max Grav   All reactions 250 lb or less at joint(s) 2, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 37, 36, 34, 33, 32, 31, 30, 29, 28, 27, 26

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-256/83, 11-12=-93/261, 12-13=-111/312, 13-14=-126/352, 14-15=-126/355, 15-16=-111/315, 16-17=-93/264

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-0-0, Exterior(2) 2-0-0 to 22-0-0, Corner(3) 22-0-0 to 25-0-0, Exterior(2) 25-0-0 to 43-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 37, 36, 34, 33, 32, 31, 30, 29, 28, 27.

NORTH CAROLINA
PROFESSIONAL
SEAL
45844
ENGINEER
ANDREW JOHNSON

July 18,2019

ENGINEERING BY
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Job	Truss	Truss Type	Qty	Ply		I37842507
21570A	T2	COMMON	7	1	Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,   8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:19 2019 Page 1
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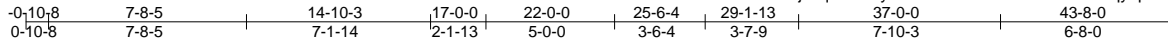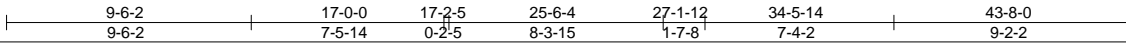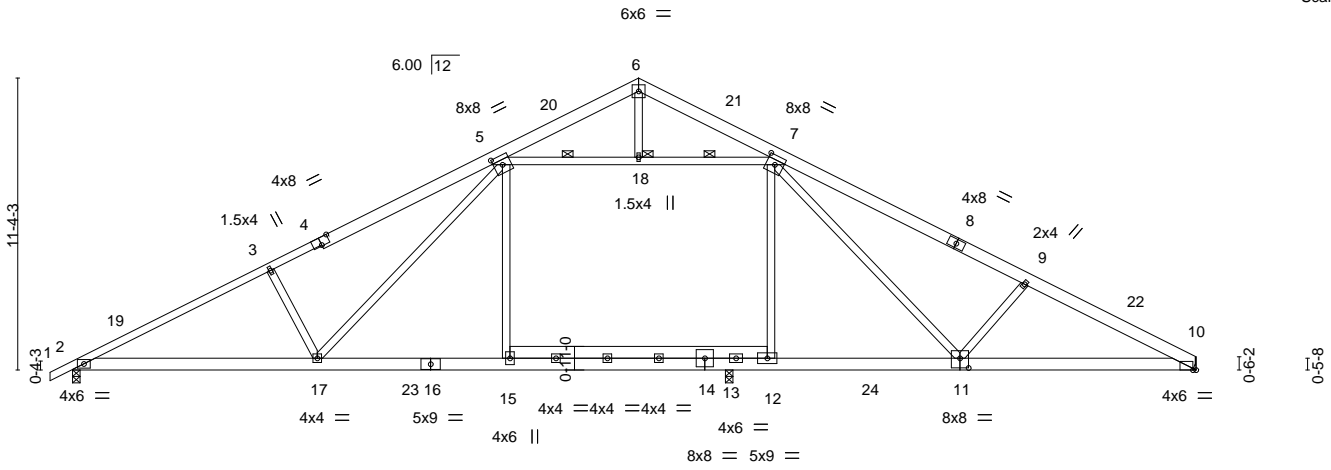
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Plate Offsets (X,Y)-- [4:0-4-0,Edge], [5:0-4-0,0-4-4], [7:0-4-0,0-4-4], [10:0-1-8,Edge], [11:0-4-0,0-4-8], [14:0-0-0,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.38	15-17	>811	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.67	15-17	>457	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 318 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.2 *Except*
  1-4: 2x4 SP No.2
BOT CHORD   2x6 SP No.2 *Except*
  11-14: 2x6 SP DSS
WEBS   2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied or 9-3-15 oc bracing.
WEBS   1 Row at midpt   5-18, 7-18
JOINTS   1 Brace at Jt(s): 18

REACTIONS.   (lb/size)   2=1571/0-3-8, 10=1416/Mechanical, 13=550/0-3-8
               Max Horz 2=197(LC 12)
               Max Uplift 2=-308(LC 12), 10=-182(LC 12), 13=-261(LC 13)
               Max Grav 2=1600(LC 25), 10=1425(LC 2), 13=868(LC 24)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-3018/585, 3-5=-2850/631, 5-6=-442/138, 6-7=-483/145, 7-9=-2495/483,
       9-10=-2701/455
BOT CHORD   2-17=-616/2684, 15-17=-359/1956, 13-15=-355/1963, 12-13=-331/1954, 11-12=-348/1949,
       10-11=-357/2371
WEBS   3-17=-450/267, 5-17=-210/922, 7-11=-215/712, 9-11=-471/301, 5-15=-107/278,
       5-18=-1633/461, 7-18=-1633/461, 7-12=-526/554

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
  MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 22-0-0, Exterior(2) 22-0-0 to 25-0-0,
  Interior(1) 25-0-0 to 43-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
  MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
  will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
  2=308, 10=182.
7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift
  only and does not consider lateral forces.

NORTH CAROLINA
PROFESSIONAL
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45844
ENGINEER
ANDREW JOHNSON

July 18,2019

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A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
21570A	T2E	COMMON SUPPORTED GAB	1	1	I37842508
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:21 2019 Page 1
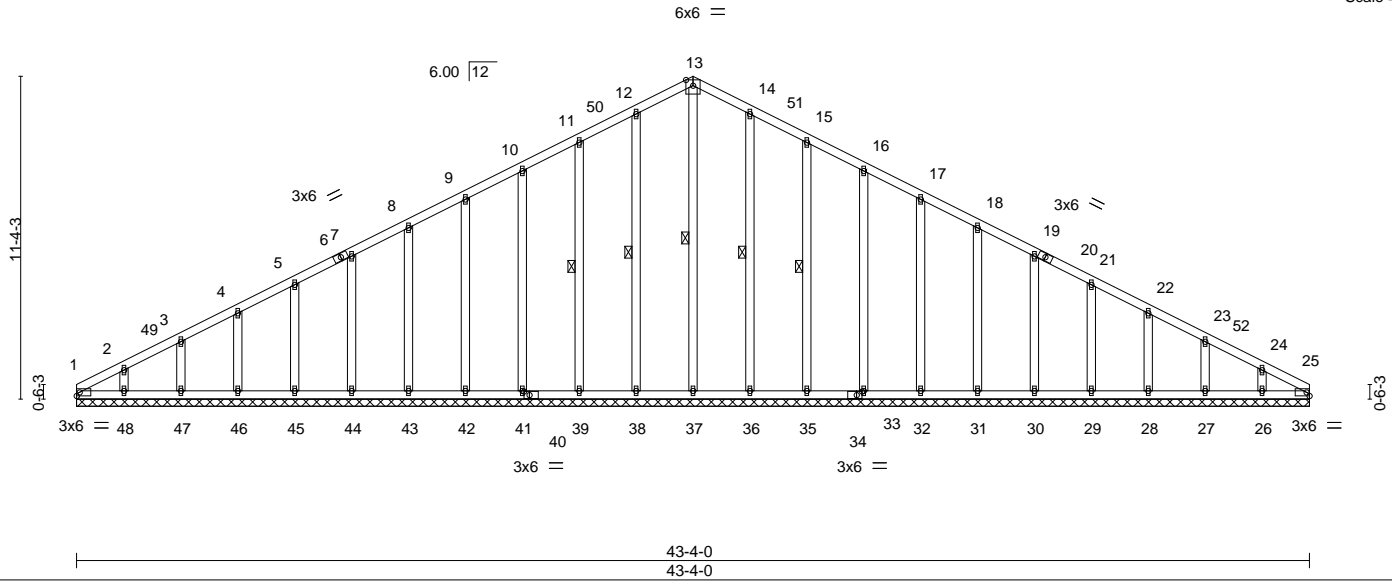ID:0ckUA53Thu5GUjfQqCaouPyZBFs-JX1mQRgr0TZu?LBXOz5I1avxedn69Yeba5MLZDywsOS

Scale = 1:81.0

Plate Offsets (X,Y)--   [34:0-2-4,0-1-8], [40:0-2-4,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	25	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 311 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   13-37, 12-38, 11-39, 14-36, 15-35

REACTIONS.   All bearings 43-4-0.
   (lb) -   Max Horz 1=-184(LC 13)
       Max Uplift   All uplift 100 lb or less at joint(s) 1, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 36, 35, 33, 32, 31,
           30, 29, 28, 27, 26
       Max Grav   All reactions 250 lb or less at joint(s) 1, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 36, 35, 33,
           32, 31, 30, 29, 28, 27, 26, 25

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-270/87, 10-11=-93/261, 11-12=-110/312, 12-13=-126/352, 13-14=-126/354,
       14-15=-110/314, 15-16=-93/263

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Corner(3) 0-0-0 to 3-0-0, Exterior(2) 3-0-0 to 21-8-0, Corner(3) 21-8-0 to 24-8-0,
   Exterior(2) 24-8-0 to 43-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces
   & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 38, 39, 41, 42,
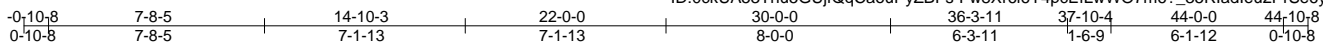   43, 44, 45, 46, 47, 48, 36, 35, 33, 32, 31, 30, 29, 28, 27, 26.

July 18,2019

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818 Soundside Road
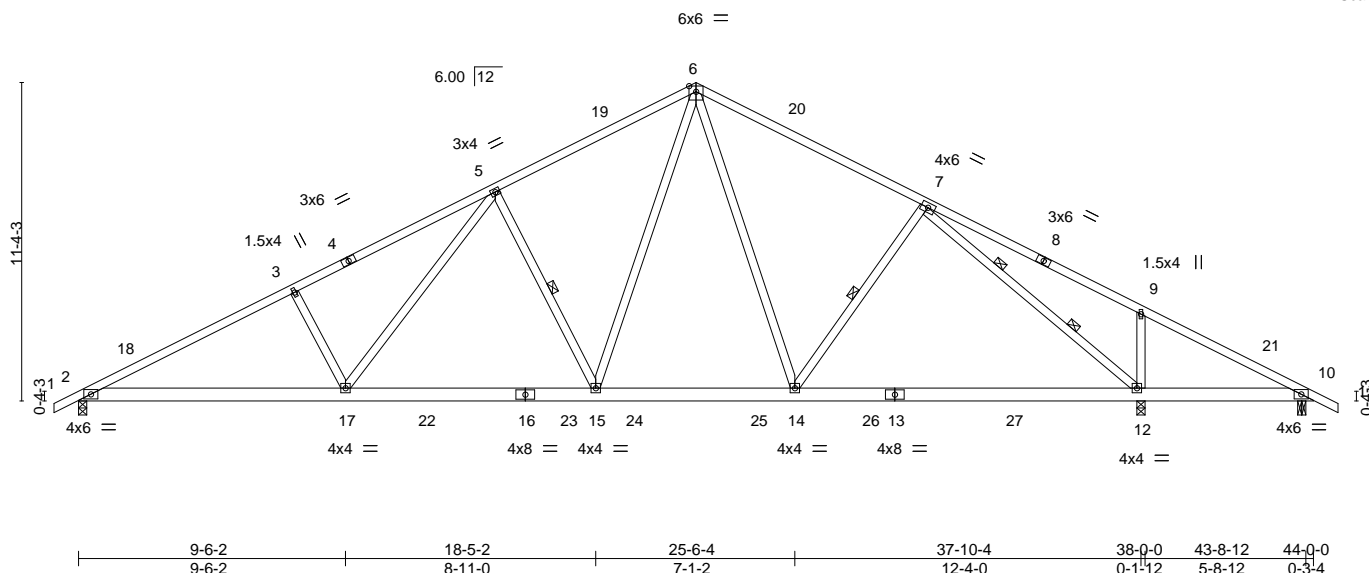Edenton, NC 27932

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:23 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-Fw8Xr6i6Y4pcEfLwWO7m6?_35RIadIeu2PrSe6ywsOQ

-0-10-8 | 7-8-5 | 14-10-3 | 22-0-0 | 30-0-0 | 36-3-11 | 37-10-4 | 44-0-0 | 44-10-8
0-10-8 | 7-8-5 | 7-1-13 | 7-1-13 | 8-0-0 | 6-3-11 | 1-6-9 | 6-1-12 | 0-10-8

Scale = 1:82.1

9-6-2 | 18-5-2 | 25-6-4 | 37-10-4 | 38-0-0 | 43-8-12 | 44-0-0
9-6-2 | 8-11-0 | 7-1-2 | 12-4-0 | 0-1-12 | 5-8-12 | 0-3-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.18	12-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.34	12-14	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 273 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
             6-0-0 oc bracing: 10-12.
WEBS   1 Row at midpt   5-15, 7-14
             2 Rows at 1/3 pts   7-12

REACTIONS.   (lb/size)   2=1544/0-3-8, 12=1935/0-3-8, 10=140/0-3-8
Max Horz 2=191(LC 12)
Max Uplift 2=-212(LC 12), 12=-221(LC 13), 10=-37(LC 13)
Max Grav 2=1544(LC 1), 12=1990(LC 2), 10=189(LC 24)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2785/361, 3-5=-2618/400, 5-6=-1839/332, 6-7=-1635/290, 7-9=-23/294,
             9-10=-89/264
BOT CHORD   2-17=-408/2432, 15-17=-226/1873, 14-15=-28/1306, 12-14=-41/1295
WEBS   3-17=-399/240, 5-17=-127/718, 5-15=-743/307, 6-15=-206/908, 6-14=-81/358,
             7-14=-89/270, 7-12=-1957/198, 9-12=-417/248

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 22-0-0, Exterior(2) 22-0-0 to 25-0-0,
   Interior(1) 25-0-0 to 44-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces
   & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   2=212.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 10. This connection is for
   uplift only and does not consider lateral forces.

July 18,2019

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Job	Truss	Truss Type	Qty	Ply		I37842510
21570A	T4	COMMON	3	1	Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:24 2019 Page 1
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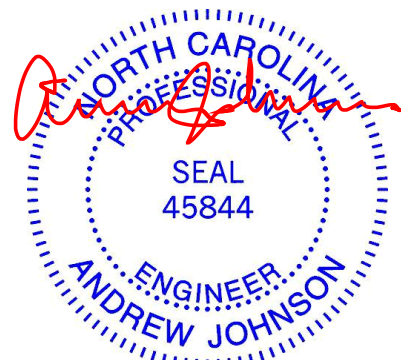
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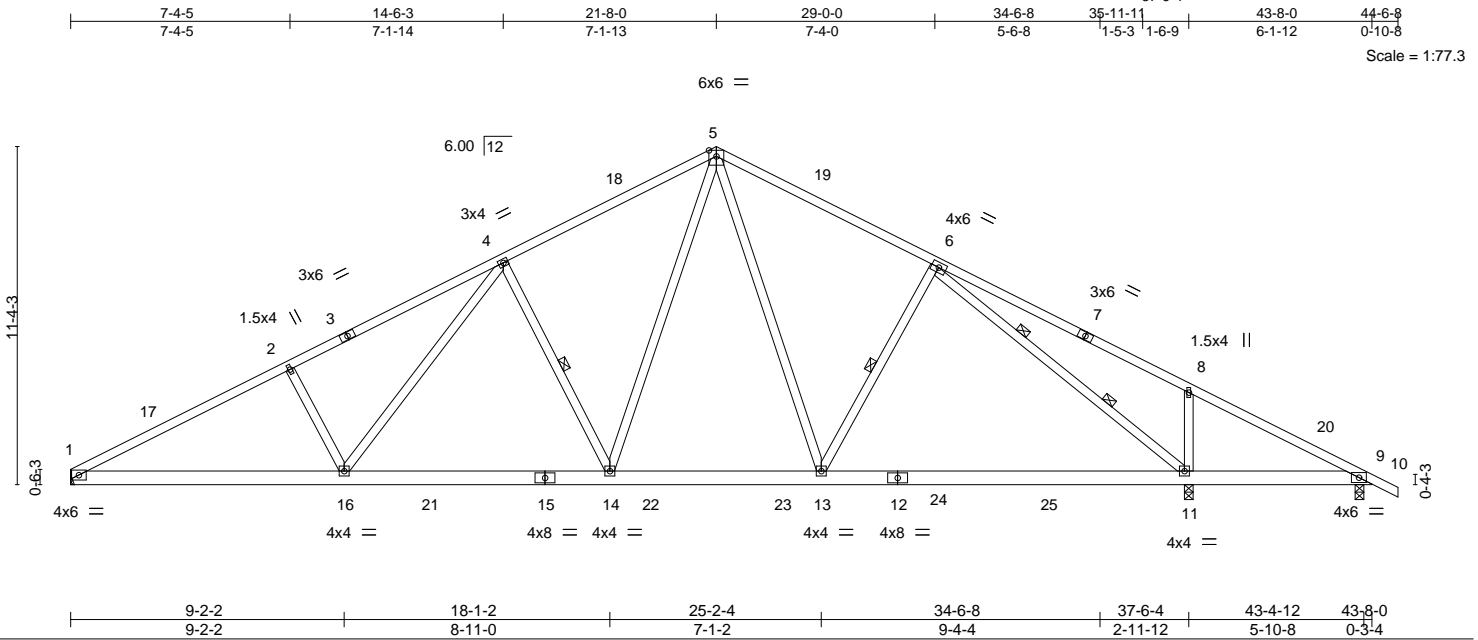
LOADING (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.19	11-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.34	11-13	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.07	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 272 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.2 *Except*
1-3: 2x4 SP No.1
BOT CHORD   2x6 SP No.2
WEBS   2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing,   Except:
6-0-0 oc bracing: 9-11.
WEBS   1 Row at midpt   4-14, 6-13
2 Rows at 1/3 pts   6-11

REACTIONS.   (lb/size)   1=1479/Mechanical, 11=1876/0-3-8, 9=183/0-3-8
Max Horz 1=-199(LC 13)
Max Uplift 1=-188(LC 12), 11=-231(LC 13), 9=-28(LC 13)
Max Grav 1=1479(LC 1), 11=1930(LC 2), 9=215(LC 24)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-2737/354, 2-4=-2572/395, 4-5=-1836/333, 5-6=-1654/298
BOT CHORD   1-16=-404/2380, 14-16=-223/1862, 13-14=-27/1311, 11-13=-39/1361
WEBS   2-16=-371/242, 4-16=-123/675, 4-14=-723/305, 5-14=-205/882, 5-13=-100/418,
6-13=-135/255, 6-11=-1861/181, 8-11=-465/278

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-12 to 3-0-12, Interior(1) 3-0-12 to 21-8-0, Exterior(2) 21-8-0 to 24-8-0,
Interior(1) 24-8-0 to 44-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
1=188.
7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 9. This connection is for
uplift only and does not consider lateral forces.

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July 18,2019

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Job	Truss	Truss Type	Qty	Ply		I37842511
21570A	T5	COMMON	7	1	Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:25 2019 Page 1
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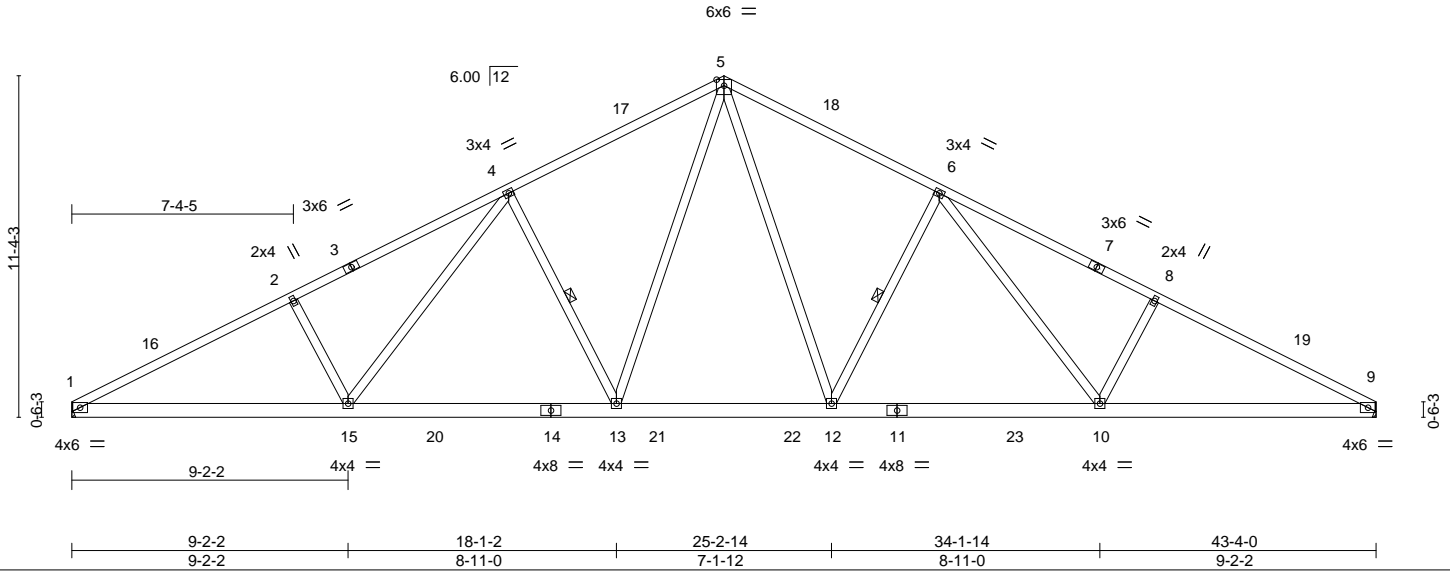
Scale = 1:76.6

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.21	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.40	13-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.11	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 268 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   6-12, 4-13

REACTIONS.   (lb/size)   1=1728/Mechanical, 9=1728/Mechanical
Max Horz 1=-183(LC 13)
Max Uplift 1=-203(LC 12), 9=-203(LC 13)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-3268/387, 2-4=-3095/428, 4-5=-2379/388, 5-6=-2379/388, 6-8=-3095/428,
8-9=-3268/388
BOT CHORD   1-15=-441/2826, 13-15=-259/2325, 12-13=-67/1769, 10-12=-122/2324, 9-10=-259/2826
WEBS   5-12=-191/914, 6-12=-716/306, 6-10=-126/661, 8-10=-365/242, 5-13=-191/914,
4-13=-716/306, 4-15=-126/661, 2-15=-365/242

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-12 to 3-0-12, Interior(1) 3-0-12 to 21-8-0, Exterior(2) 21-8-0 to 24-8-0,
   Interior(1) 24-8-0 to 43-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
   MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   1=203, 9=203.

July 18,2019

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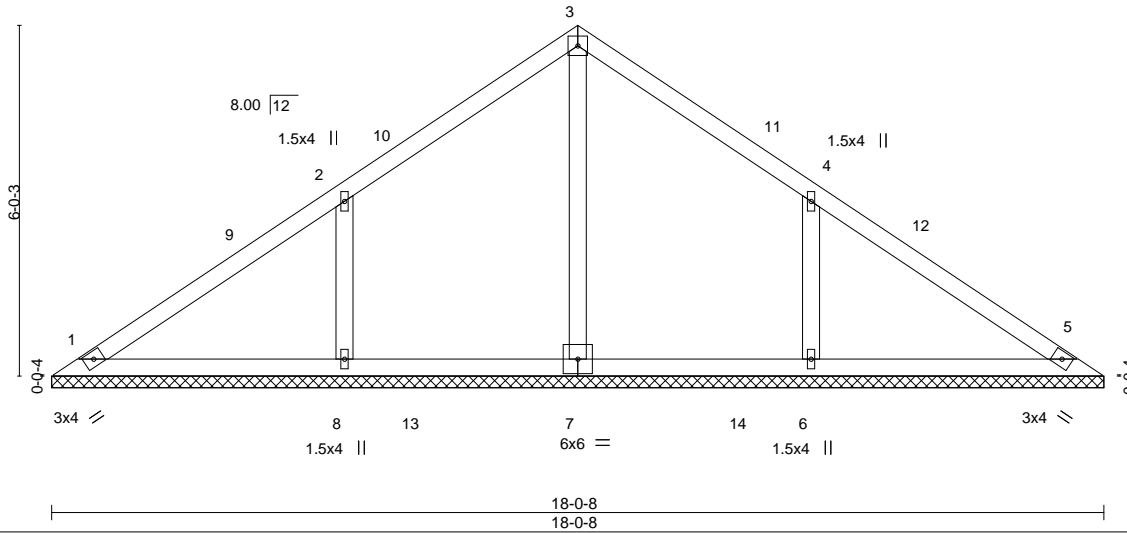| Job	Truss	Truss Type	Qty	Ply		I37842512
21570A	V1	GABLE	1	1		
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:26 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-fVqfT8k_r?BB663UBWgTkdclVeSJqpgKkN46FQywsON

9-0-4
9-0-4
18-0-8
9-0-4

4x4 =

Scale = 1:39.5

8.00 ⎣12

1.5x4 ‖   10

1.5x4 ‖

6-0-3

0-0-4

3x4 ∥   8   13   7   14   6   3x4 ∖∖
1.5x4 ‖   6x6 =   1.5x4 ‖

18-0-8
18-0-8

LOADING (psf)	**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL 20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 74 lb	FT = 20%

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

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

REACTIONS.   All bearings 18-0-8.
   (lb) - Max Horz 1=141(LC 11)
          Max Uplift   All uplift 100 lb or less at joint(s) 1 except 8=-168(LC 12), 6=-168(LC 13)
          Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=344(LC 22), 8=462(LC 19), 6=462(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-329/218, 4-6=-329/218

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 9-0-4, Exterior(2) 9-0-4 to 12-0-4,
   Interior(1) 12-0-4 to 17-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces
   & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb)
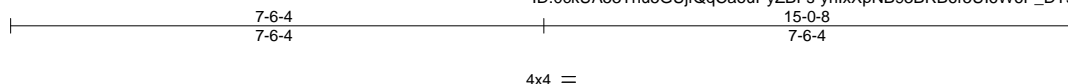   8=168, 6=168.

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Job	Truss	Truss Type	Qty	Ply		I37842513
21570A	V2	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:33 2019 Page 1
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7-6-4
7-6-4
15-0-8
7-6-4

4x4 ═

Scale = 1:32.5

8.00 ⌐12

5-0-3

1.5x4 ∥

1.5x4 ∥

1.5x4 ∥

0-0-4

0-0-4

3x4 ⁄⁄

3x4 ⟍

1.5x4 ∥

1.5x4 ∥

1.5x4 ∥

15-0-8
15-0-8
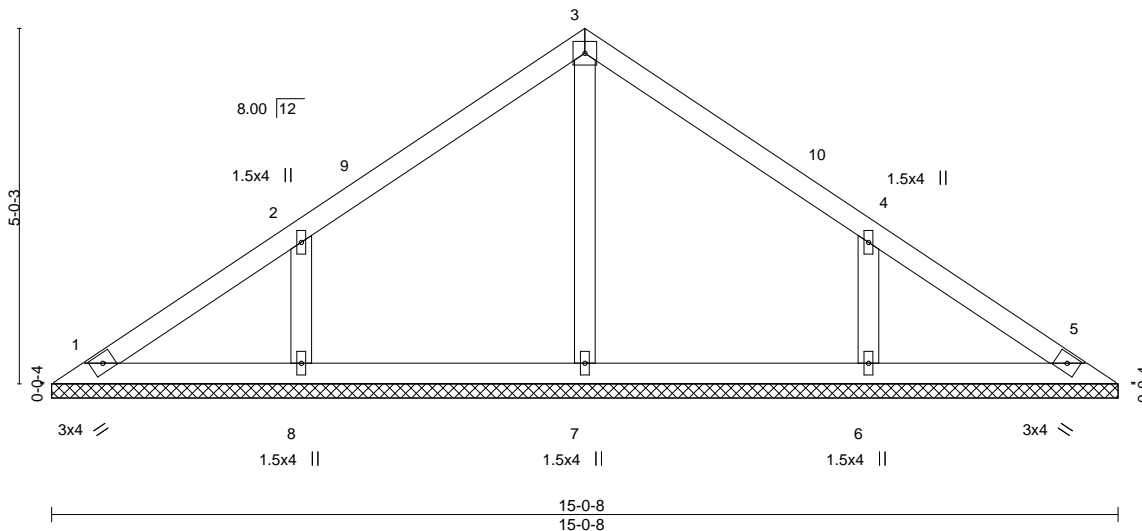
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 59 lb	FT = 20%

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

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

REACTIONS.   All bearings 15-0-8.
(lb) - Max Horz 1=116(LC 11)
        Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-139(LC 12), 6=-139(LC 13)
        Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=257(LC 1), 8=353(LC 19), 6=353(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-272/181, 4-6=-271/181

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-6-4, Interior(1) 3-6-4 to 7-6-4, Exterior(2) 7-6-4 to 10-6-4,
   Interior(1) 10-6-4 to 14-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces
   & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb)
   8=139, 6=139.

July 18,2019

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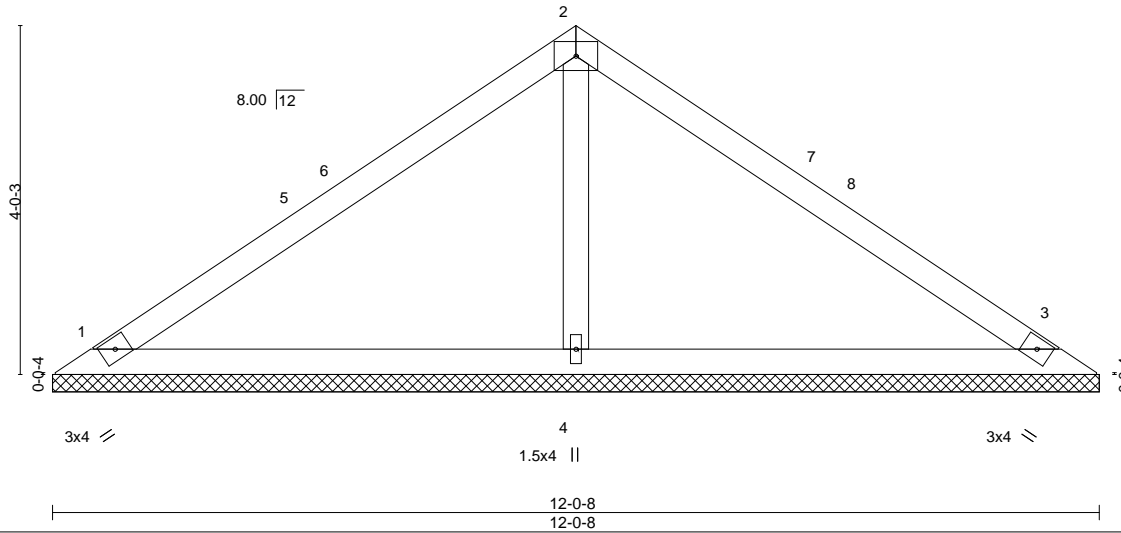| Job	Truss	Truss Type	Qty	Ply		I37842514
21570A	V3	GABLE	1	1		
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:34 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-Q1Jh8tq?yTB23Lh1fCqL3Jx4pt9ziRqVZc0XXzywsOF

6-0-4	12-0-8
6-0-4	6-0-4

4x6 =

Scale = 1:26.5

8.00 ⟦12

4-0-3

0-0-4

3x4 ⫽   3x4 ⟍

4
1.5x4 ∥

12-0-8
12-0-8

LOADING (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 43 lb	FT = 20%

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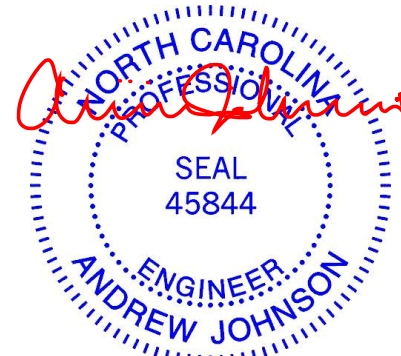BOT CHORD   2x4 SP No.2
OTHERS   2x4 SP No.3

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

REACTIONS.   (lb/size)   1=218/12-0-8, 3=218/12-0-8, 4=450/12-0-8
Max Horz 1=-91(LC 8)
Max Uplift 1=-41(LC 12), 3=-53(LC 13), 4=-14(LC 12)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-4=-286/87

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 6-0-4, Exterior(2) 6-0-4 to 9-0-4,
   Interior(1) 9-0-4 to 11-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
   MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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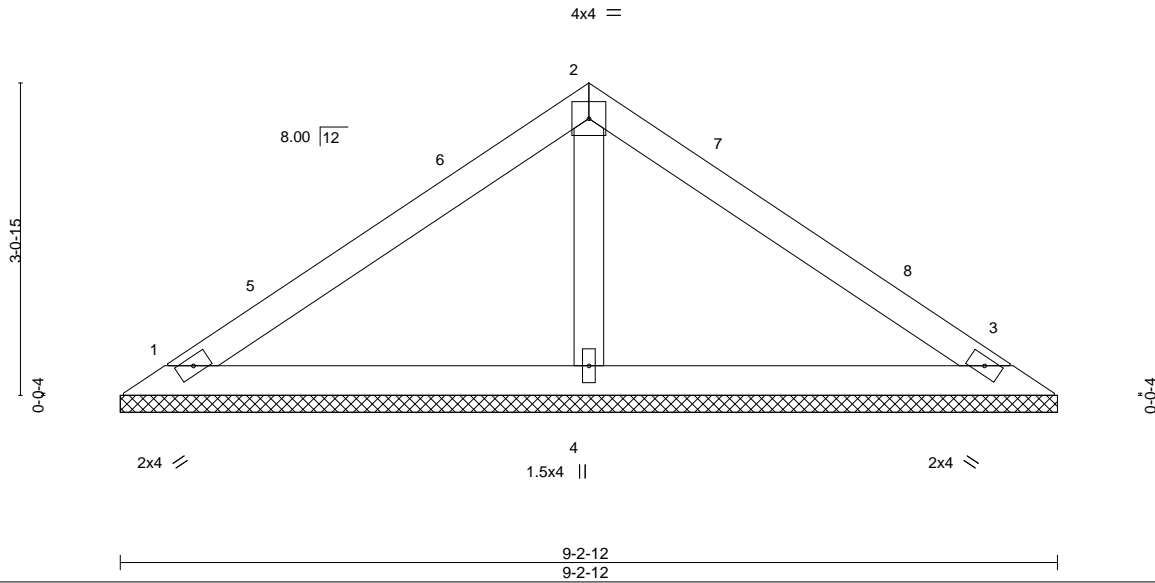| Job	Truss	Truss Type	Qty	Ply		I37842515
21570A	V4	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:35 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-vEt3MDrdjmJvhVFDDvLabXUJsGWJRvgfoGl43PywsOE

4-7-6 / 9-2-12
4-7-6 / 4-7-6

Scale = 1:22.7

4x4

8.00 |12

2x4 //   1.5x4 || 2x4 \\

9-2-12
9-2-12

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 32 lb	FT = 20%

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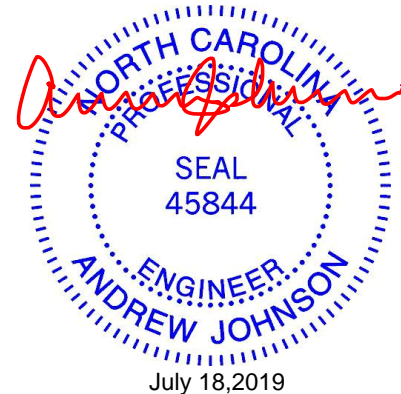BOT CHORD   2x4 SP No.2
OTHERS   2x4 SP No.3

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=163/9-2-12, 3=163/9-2-12, 4=336/9-2-12
Max Horz 1=-68(LC 8)
Max Uplift 1=-30(LC 12), 3=-39(LC 13), 4=-11(LC 12)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-7-6, Exterior(2) 4-7-6 to 7-7-6,
   Interior(1) 7-7-6 to 8-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
   MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
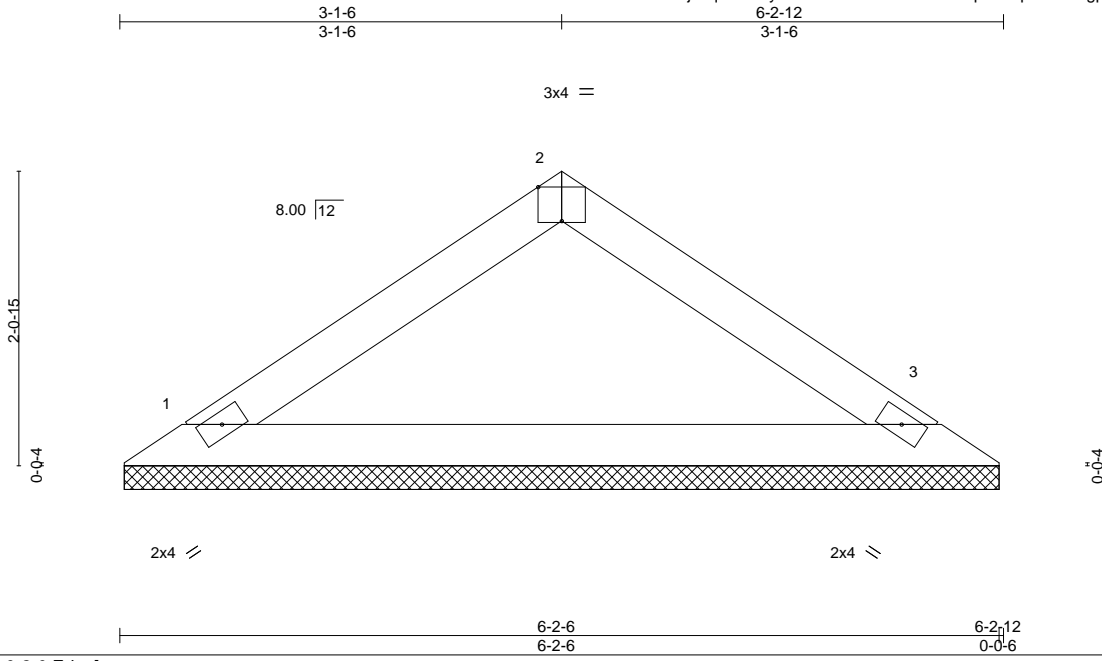
July 18,2019

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	I37842516
21570A	V5	VALLEY	1	1	
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:36 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-NQRRZZsFU4RmIfqPmdsp8k0WMgpfAMho1wVebrywsOD

Scale = 1:16.2

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	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 19 lb	FT = 20%

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

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

REACTIONS.   (lb/size)   1=211/6-2-0, 3=211/6-2-0
Max Horz 1=-43(LC 10)
Max Uplift 1=-23(LC 12), 3=-23(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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right
   exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

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Job	Truss	Truss Type	Qty	Ply		I37842517
21570A	V6	VALLEY	1	1		
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:37 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-rc?pnvtuFOadwoPcKKN2gyZhi4DMvpxyGaEB7IywsOC
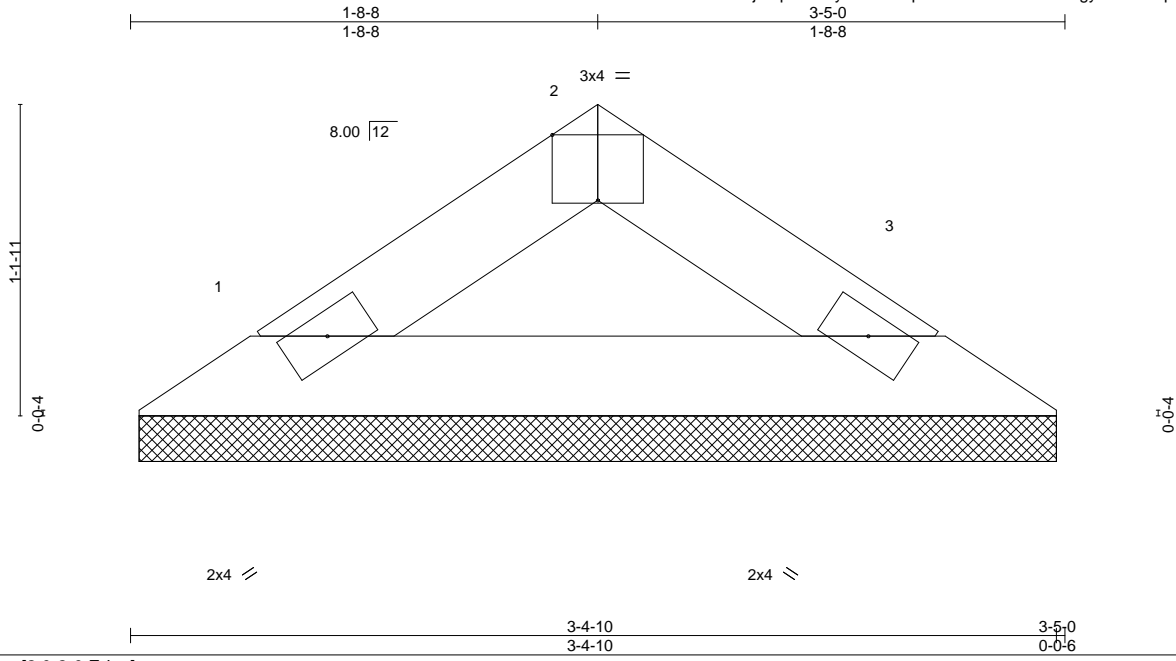
Scale = 1:8.4

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	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 9 lb	FT = 20%

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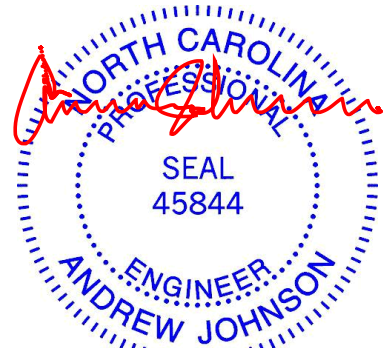BOT CHORD   2x4 SP No.2

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

REACTIONS.   (lb/size)   1=98/3-4-4, 3=98/3-4-4
                Max Horz 1=-20(LC 8)
                Max Uplift 1=-11(LC 12), 3=-11(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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right
   exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

July 18,2019

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Job	Truss	Truss Type	Qty	Ply	
21570A	V7	GABLE	1	1	I37842518
				Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:38 2019 Page 1
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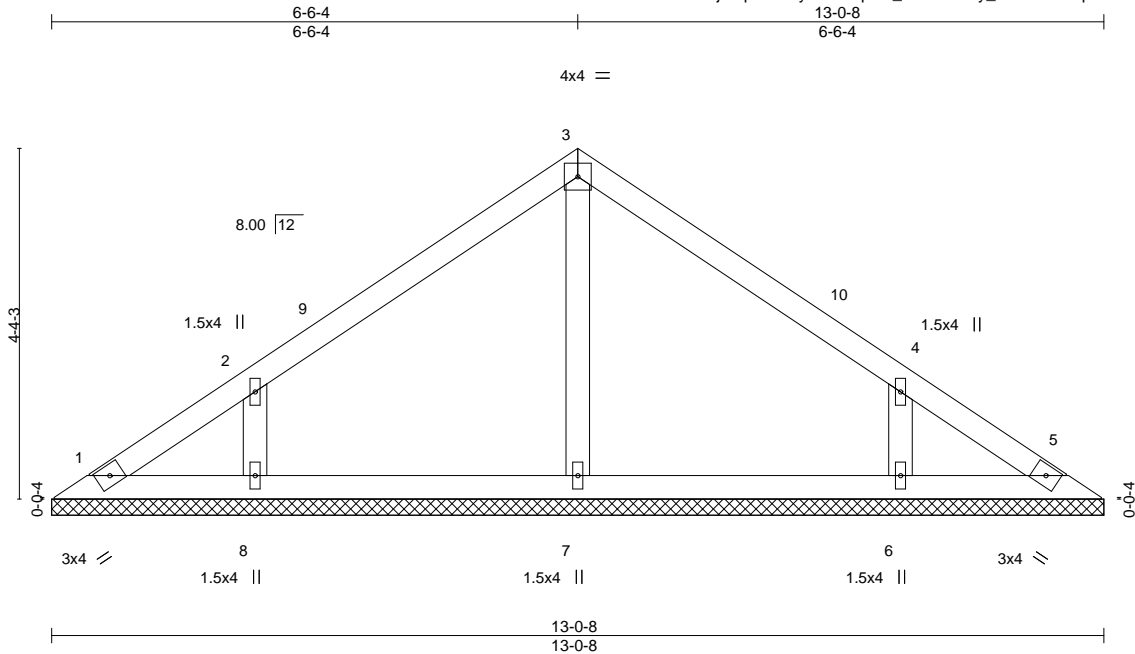
6-6-4
6-6-4

13-0-8
6-6-4

4x4 ≡

Scale = 1:28.6

8.00 ⌐12

4-4-3

0-0-4

3x4 ⫽   8   1.5x4 ‖   7   1.5x4 ‖   6   1.5x4 ‖   3x4 ⟍

13-0-8
13-0-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 50 lb	FT = 20%

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

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

REACTIONS.   All bearings 13-0-8.
          (lb) - Max Horz 1=100(LC 11)
                 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-127(LC 12), 6=-127(LC 13)
                 Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=266(LC 1), 8=316(LC 19), 6=316(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 6-6-4, Exterior(2) 6-6-4 to 9-6-4,
   Interior(1) 9-6-4 to 12-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
   MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb)
   8=127, 6=127.

July 18,2019

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
21570A	V8	GABLE	1	1	I37842519
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:39 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-n?6aCau8n?qL96Z_SIPWmNez?utiNjXEjujICAywsOA
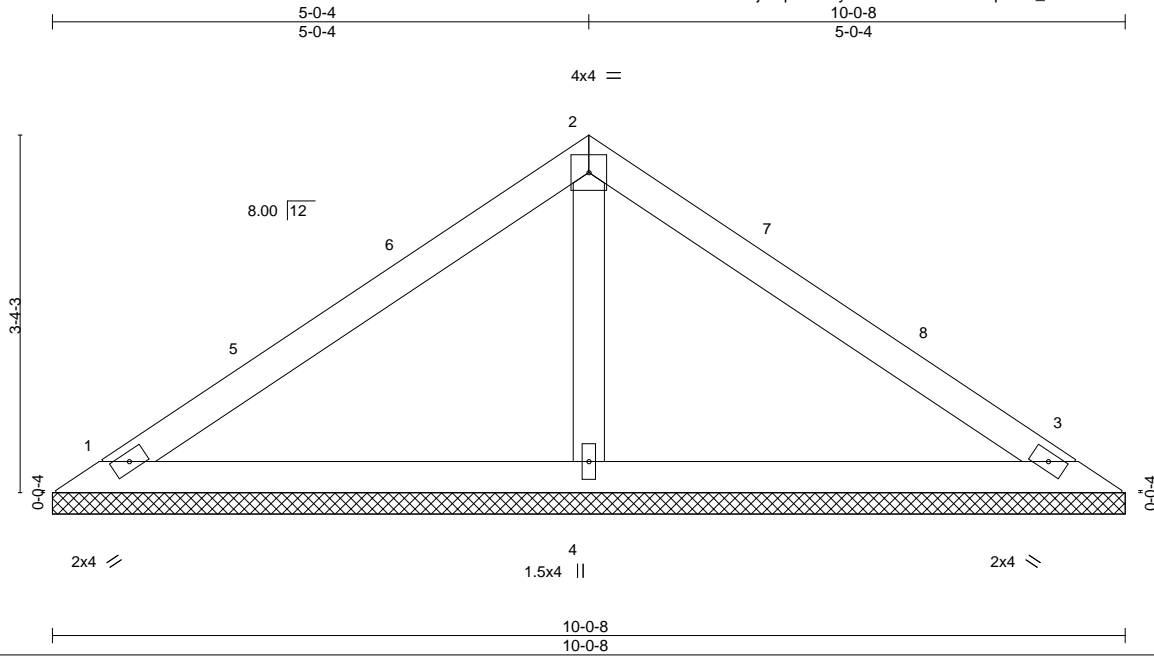
5-0-4
5-0-4
10-0-8
5-0-4

4x4 =

Scale = 1:21.6

8.00 12

3-4-3

0-0-4

2x4 //

1.5x4 |||

2x4 \\\

0-0-4

10-0-8
10-0-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 35 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=179/10-0-8, 3=179/10-0-8, 4=369/10-0-8
Max Horz   1=-75(LC 10)
Max Uplift   1=-33(LC 12), 3=-43(LC 13), 4=-12(LC 12)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-0-4, Exterior(2) 5-0-4 to 8-0-4,
   Interior(1) 8-0-4 to 9-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
   MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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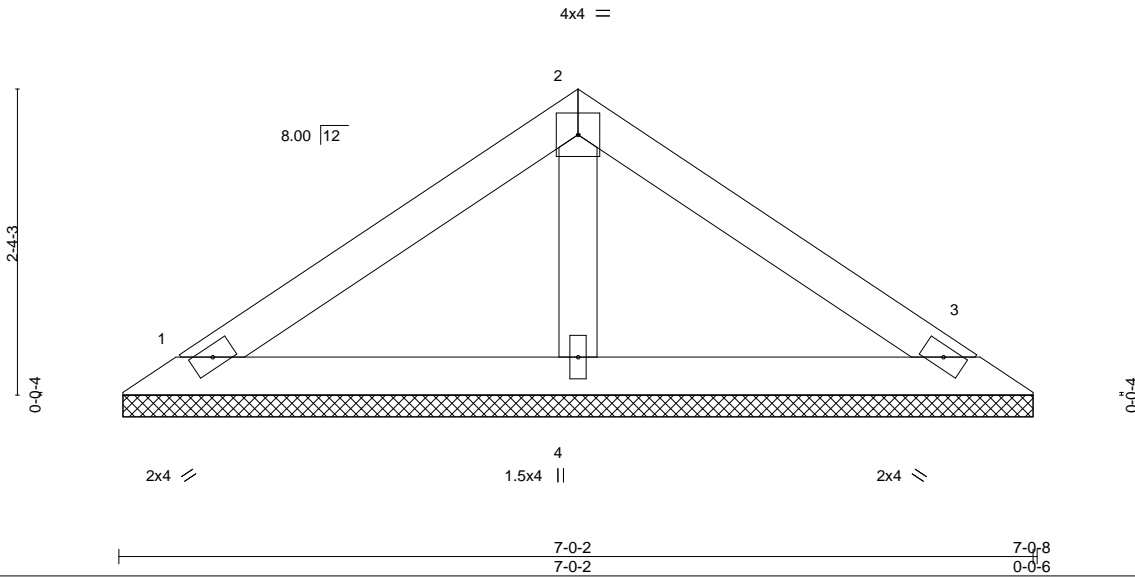| Job	Truss	Truss Type	Qty	Ply	I37842520
21570A	V9	VALLEY	1	1	
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,
8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:39 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-n?6aCau8n?qL96Z_SlPWmNe?uuvTNjyEjujICAywsOA
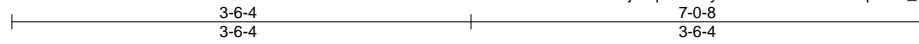
3-6-4
3-6-4
7-0-8
3-6-4

Scale = 1:17.7

4x4 =

2

8.00 ‾12‾

2-4-3

0-0-4

1

3

4

0-0-4

2x4 //   1.5x4 || 2x4 \\

7-0-2
7-0-2
7-0-8
0-0-6

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 24 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=131/6-11-12, 3=131/6-11-12, 4=224/6-11-12
                        Max Horz 1=50(LC 9)
                        Max Uplift 1=-29(LC 12), 3=-36(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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right
   exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

July 18,2019

Job	Truss	Truss Type	Qty	Ply		I37842521
21570A	V10	VALLEY	1	1		
					Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:27 2019 Page 1
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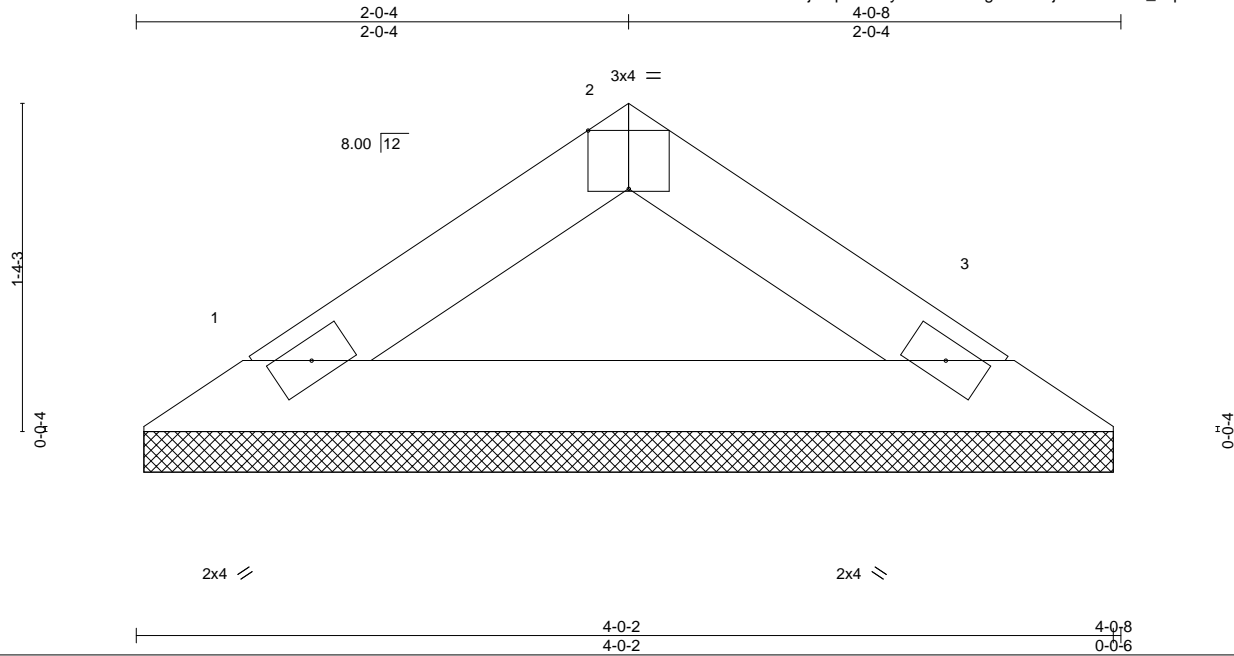
Scale = 1:9.5

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	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 11 lb	FT = 20%

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

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

REACTIONS.   (lb/size)   1=123/3-11-12, 3=123/3-11-12
Max Horz 1=-25(LC 8)
Max Uplift 1=-13(LC 12), 3=-13(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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right
   exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
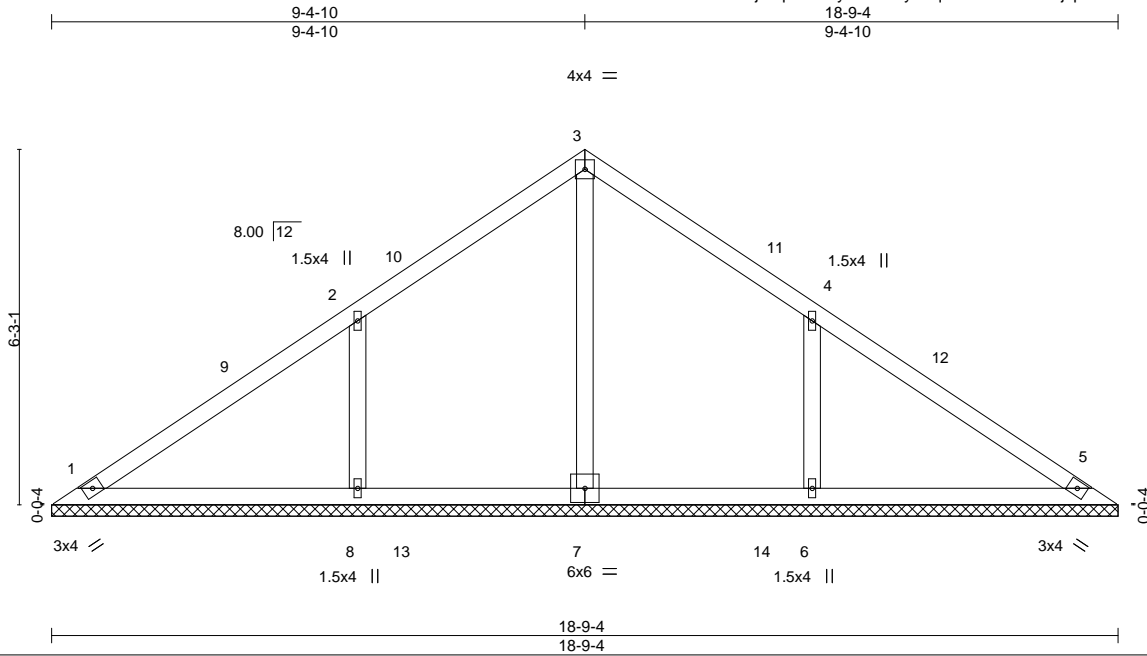
July 18,2019

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	I37842522
21570A	V11	GABLE	1	1	
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:28 2019 Page 1
ID:0ckUA53Thu5GUjfQqCaouPyZBFs-ctyPuqmENdRvLQDtIxjxp2h5PS7LIj6dBhZDJJywsOL

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 77 lb	FT = 20%

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

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

REACTIONS.   All bearings 18-9-4.
(lb) - Max Horz 1=-147(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-177(LC 12), 6=-177(LC 13)
Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=345(LC 22), 8=495(LC 19), 6=495(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-346/229, 4-6=-346/228

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 9-4-10, Exterior(2) 9-4-10 to 12-4-10,
   Interior(1) 12-4-10 to 18-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces
   & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb)
   8=177, 6=177.

July 18,2019

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

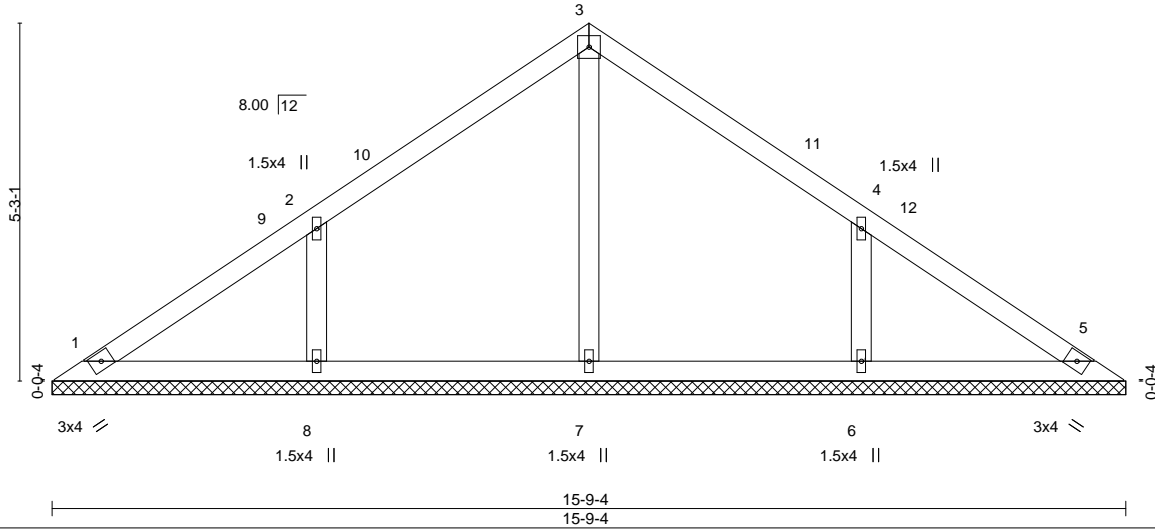| Job	Truss	Truss Type	Qty	Ply		I37842523
21570A	V12	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:29 2019 Page 1
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7-10-10   15-9-4
7-10-10   7-10-10

4x4 ═

Scale = 1:33.8

8.00 ⌐12

1.5x4 ‖   10   11   1.5x4 ‖

5-3-1

1.5x4 ‖   2   9   4   12   1.5x4 ‖

0-0-4

3x4 ╱╱   8   7   6   3x4 ╲

1.5x4 ‖   1.5x4 ‖   1.5x4 ‖

15-9-4
15-9-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999		MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S								Weight: 63 lb	FT = 20%

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

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

REACTIONS.   All bearings 15-9-4.
     (lb) -   Max Horz   1=122(LC 9)
         Max Uplift   All uplift 100 lb or less at joint(s) 1 except 8=-145(LC 12), 6=-145(LC 13)
         Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=251(LC 1), 8=371(LC 19), 6=371(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-284/189, 4-6=-283/189

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 7-10-10, Exterior(2) 7-10-10 to
   10-10-10, Interior(1) 10-10-10 to 15-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members
   and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb)
   8=145, 6=145.

July 18,2019

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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
21570A	V13	GABLE	1	1	I37842524
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:30 2019 Page 1
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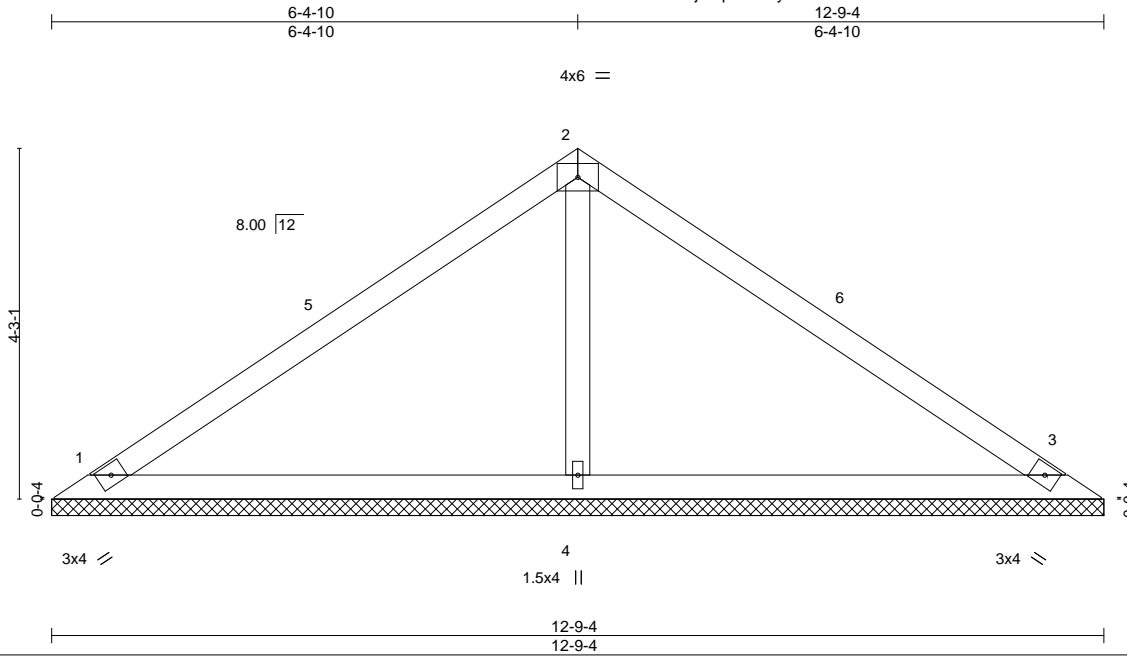
6-4-10   12-9-4
6-4-10   6-4-10

4x6 =

Scale = 1:28.0

8.00 ⌐12

4-3-1

0-0-4

1   5   2   6   3   4

3x4 ∥   1.5x4 ∥   3x4 ∖∖

0-0-4

12-9-4
12-9-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 45 lb	FT = 20%

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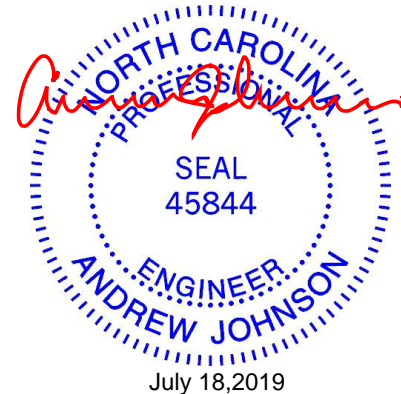TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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=232/12-9-4, 3=232/12-9-4, 4=480/12-9-4
Max Horz 1=-97(LC 10)
Max Uplift 1=-43(LC 12), 3=-56(LC 13), 4=-15(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-305/90

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 6-4-10, Exterior(2) 6-4-10 to 9-4-10,
Interior(1) 9-4-10 to 12-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

NORTH CAROLINA
PROFESSIONAL
SEAL
45844
ENGINEER
ANDREW JOHNSON

July 18,2019

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
21570A	V14	GABLE	1	1	I37842525
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:31 2019 Page 1
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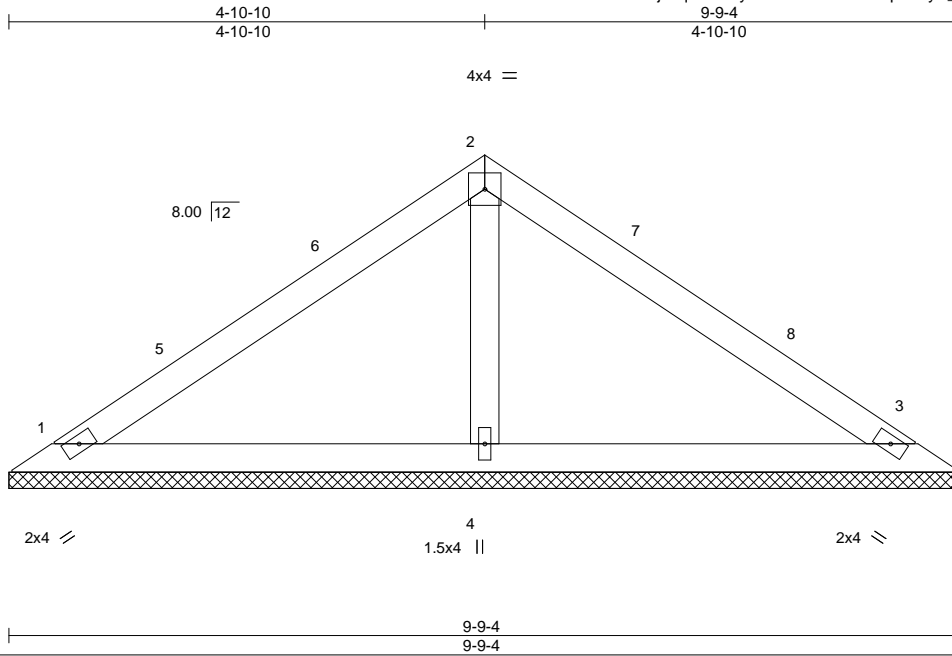
4-10-10 · 9-9-4
4-10-10 · 4-10-10

4x4 ▭

Scale = 1:23.7

8.00 ┌12

3-3-1

0-0-4

2x4 ⁄⁄   4   2x4 ⧵
1.5x4 ‖

9-9-4
9-9-4

LOADING (psf)	**SPACING-** 2-0-0	**CSI.**	**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL 20.0	Plate Grip DOL 1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						Weight: 34 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=173/9-9-4, 3=173/9-9-4, 4=358/9-9-4
Max Horz 1=-73(LC 8)
Max Uplift 1=-32(LC 12), 3=-42(LC 13), 4=-11(LC 12)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-10-10, Exterior(2) 4-10-10 to
   7-10-10, Interior(1) 7-10-10 to 9-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and
   forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

(Engineer's seal: NORTH CAROLINA PROFESSIONAL ENGINEER, SEAL 45844, ANDREW JOHNSON)

July 18,2019

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Scale = 1:17.2

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	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 20 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 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   1=232/6-8-8, 3=232/6-8-8
                        Max Horz 1=-48(LC 8)
                        Max Uplift 1=-25(LC 12), 3=-25(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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right
   exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

July 18,2019

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

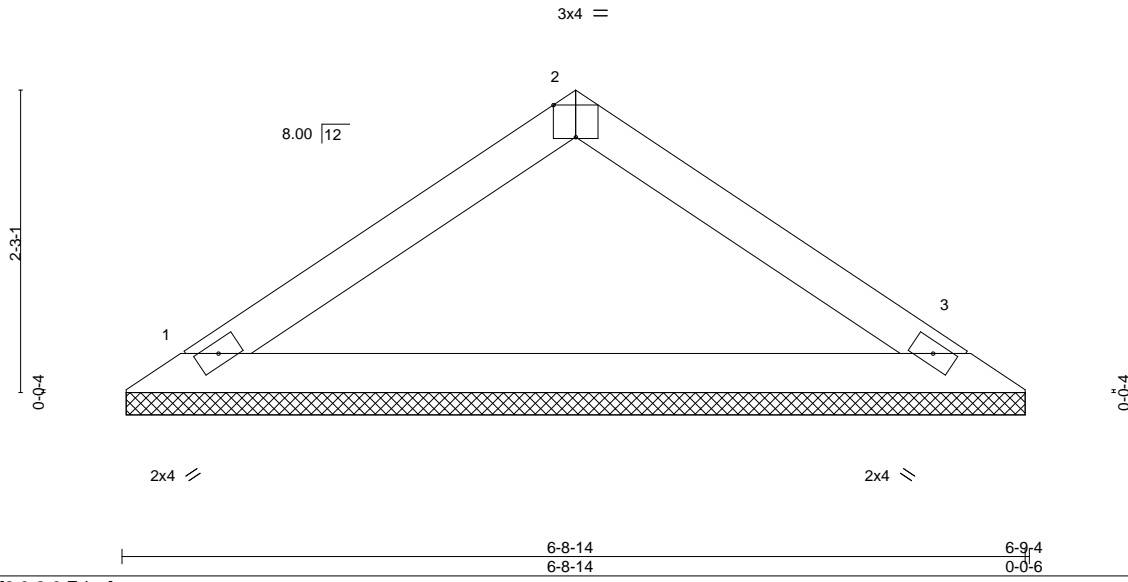| Job	Truss	Truss Type	Qty	Ply	
21570A	V16	VALLEY	1	1	I37842527
					Job Reference (optional)

84 Components (Dunn),   Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Thu Jul 18 10:25:32 2019 Page 1
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Scale = 1:9.0

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 20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 11 lb	FT = 20%

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

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-9-4 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   1=112/3-8-8, 3=112/3-8-8
Max Horz 1=-23(LC 8)
Max Uplift 1=-12(LC 12), 3=-12(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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right
   exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
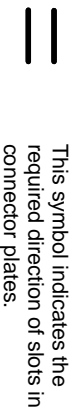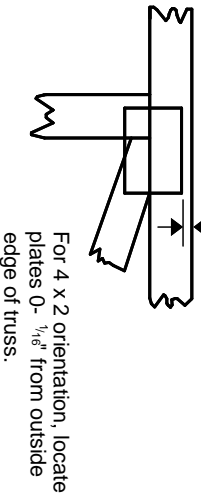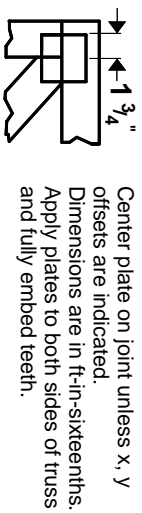
July 18,2019

TRENCO
ENGINEERING BY
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.
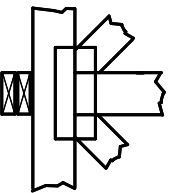
PLATE SIZE

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.
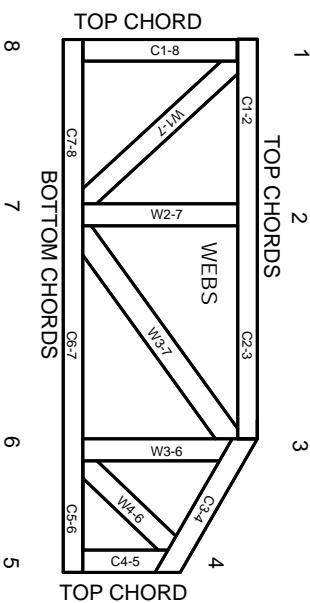
BEARING

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

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.

DSB-89: Design Standard for Bracing.

BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8

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

TOP CHORD

1   2   3

TOP CHORDS

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

WEBS

W1-7   W2-7   W3-7   W3-6   W4-6

BOTTOM CHORDS

C7-8   C6-7   C5-6   C4-5

8   7   6   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.

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⚠ 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.

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