ENGINEERING BY TRENCO
A MiTek Affiliate

RE: P20-04004 - JOB 09-2020-020

Site Information:
Project Customer: Project Name:
Lot/Block: Subdivision:
Model:
Address:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014	Design Program: MiTek 20/20 8.3
Wind Code: N/A Wind Speed: 130 mph	Design Method: User defined
Roof Load: 40.0 psf	Floor Load: 55.0 psf

Mean Roof Height (feet): 12   Exposure Category: B

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	E14282407	F01	4/9/20	35	E14282441	M01	4/9/20
2	E14282408	F02	4/9/20	36	E14282442	M02	4/9/20
3	E14282409	F03	4/9/20	37	E14282443	M03	4/9/20
4	E14282410	F04	4/9/20	38	E14282444	M04	4/9/20
5	E14282411	F05	4/9/20	39	E14282445	T01	4/9/20
6	E14282412	F06	4/9/20	40	E14282446	T01GE	4/9/20
7	E14282413	F07	4/9/20	41	E14282447	T02	4/9/20
8	E14282414	F08	4/9/20			T02GE	4/9/20
9	E14282415	F09	4/9/20	43	E14282449	T03	4/9/20
10	E14282416	F10	4/9/20	44	E14282450	T03GE	4/9/20
11	E14282417	F11	4/9/20	45	E14282451	T04	4/9/20
12	E14282418	F12	4/9/20	46	E14282452	T04GE	4/9/20
13	E14282419	F13	4/9/20	47	E14282453	T05	4/9/20
14	E14282420	F14	4/9/20				
	E14282421	F15	4/9/20				
16	E14282422	F16	4/9/20				
17	E14282423	F17	4/9/20				
18	E14282424	F18	4/9/20				
19	E14282425	F19	4/9/20				
20	E14282426	F20	4/9/20				
21	E14282427	F21	4/9/20				
22	E14282428	F22	4/9/20				
23	E14282429	F23	4/9/20				
	E14282430	F24	4/9/20				
25	E14282431	F25	4/9/20				
26	E14282432	F26	4/9/20				
27	E14282433	F27	4/9/20				
28	E14282434	F28	4/9/20				
29	E14282435	F29	4/9/20				
30	E14282436	F30	4/9/20				
31	E14282437	F31	4/9/20				
32	E14282438	F32	4/9/20				
		F33	4/9/20				
34	E14282440	G01	4/9/20				

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Longleaf Truss Company.

Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2020.

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.

NORTH CAROLINA PROFESSIONAL SEAL 026322 ERIC A. GILBERT ENGINEER

April 9, 2020

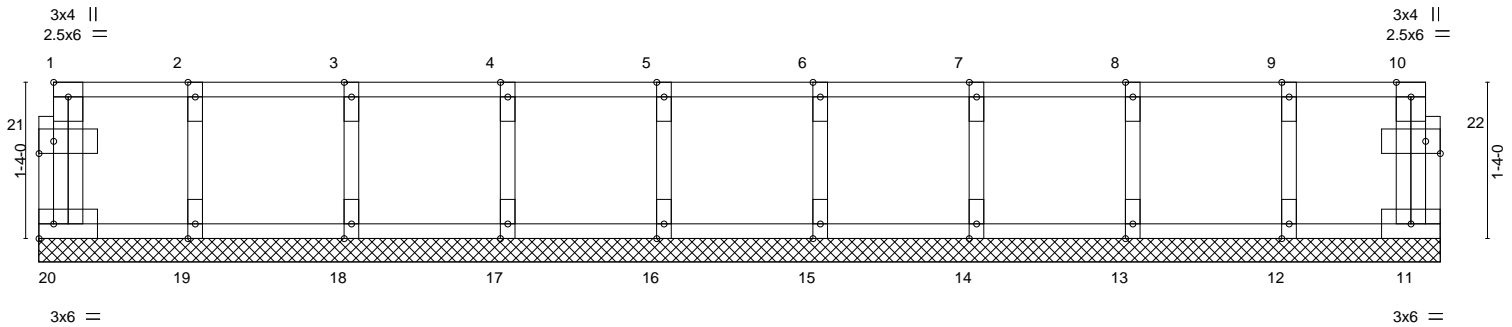| Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F01	Floor Supported Gable	1	1	Job Reference (optional)	E14282407

Longleaf Truss Company,   West End, NC - 27376,
8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:44 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-CL42lNEipczZZ1DPrM5xPPO?yOnhbD4jdL3aDYzSR3P

0-1-8

0-1-8

Scale = 1:19.7

11-11-8

11-11-8

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [21:0-1-8,0-1-4], [22:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	11	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 57 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
OTHERS   2x4 SP No.3(flat)

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

REACTIONS.   All bearings 11-11-8.
(lb) - Max Grav   All reactions 250 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 13, 12

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282408
P20-04004	F02	GABLE	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:45 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-gYdQzjFKaw5QBAobP3cAydxAfo7vKgKts?o7I_zSR3O

0-1-8

Scale = 1:24.3

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [27:0-1-8,0-1-4]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	14	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 69 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
OTHERS   2x4 SP No.3(flat)

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

REACTIONS.   All bearings 14-8-0.
      (lb) - Max Grav   All reactions 250 lb or less at joint(s) 26, 14, 20, 15, 16, 17, 18, 19, 25, 24, 23, 22, 21

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
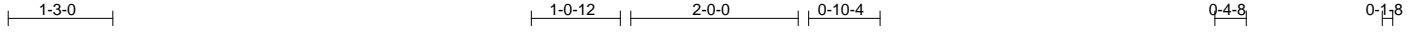9) CAUTION, Do not erect truss backwards.

SEAL
036322
ERIC A. GILBERT
NORTH CAROLINA PROFESSIONAL ENGINEER

April 9,2020

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F03	Floor	5	1		E14282409
					Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,
8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:46 2020 Page 1
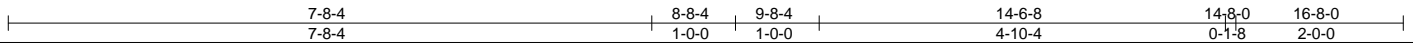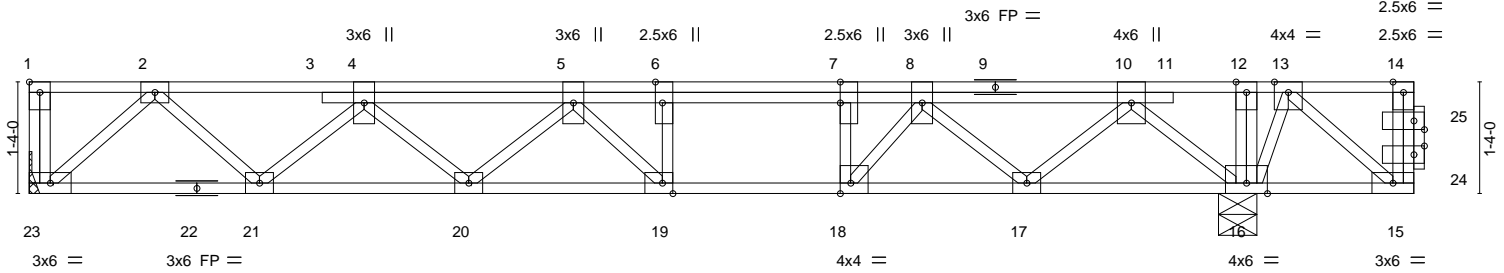ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-8kBpA3GyLDDHpKNoyn7PUqUE2CLN30n05fYhHQzSR3N

1-3-0   1-0-12   2-0-0   0-10-4   0-4-8   0-1-8

Scale = 1:27.5

7-8-4   8-8-4   9-8-4   14-6-8   14-8-0   16-8-0
7-8-4   1-0-0   1-0-0   4-10-4   0-1-8   2-0-0

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [6:0-3-0,Edge], [7:0-3-0,0-0-0], [18:0-1-8,Edge], [19:0-1-8,Edge], [24:0-1-8,0-1-4], [25:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.47	Vert(LL)	-0.11	19-20	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.57	Vert(CT)	-0.14	19-20	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.47	Horz(CT)	0.03	16	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 105 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   23=Mechanical, 16=0-5-8
            Max Grav 23=752(LC 3), 16=1577(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   14-15=-338/0, 2-4=-1313/0, 4-5=-2066/0, 5-6=-2060/0, 6-7=-2060/0, 7-8=-2060/0,
            8-10=-1018/216, 10-12=0/694, 12-13=0/693
BOT CHORD   21-23=0/786, 20-21=0/1831, 19-20=0/2256, 18-19=0/2060, 17-18=-20/1595,
            16-17=-427/438, 15-16=-389/0
WEBS   6-19=-73/331, 7-18=-689/0, 2-23=-1046/0, 2-21=0/725, 4-21=-710/0, 4-20=0/318,
            5-20=-259/16, 5-19=-508/124, 10-16=-1179/0, 10-17=0/811, 8-17=-809/0, 8-18=0/980,
            13-15=0/518, 13-16=-772/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Load case(s) 11, 12 has/have been modified. Building designer must review loads to verify that they are correct for the intended use
   of this truss.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
9) CAUTION, Do not erect truss backwards.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)   Standard Except:
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
        Vert: 15-23=-10, 1-12=-100, 12-14=-280(F=-180)
   Concentrated Loads (lb)
        Vert: 14=-180

April 9,2020

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F03	Floor	5	1		E14282409
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:46 2020 Page 2

ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-8kBpA3GyLDDHpKNoyn7PUqUE2CLN30n05fYhHQzSR3N

LOAD CASE(S)

11) User defined: Lumber Increase=1.00, Plate Increase=1.00

    Uniform Loads (plf)

        Vert: 15-23=-10(F), 1-12=-100(F), 12-14=-280(F)

    Concentrated Loads (lb)

        Vert: 14=-180

12) User defined: Lumber Increase=1.00, Plate Increase=1.00

    Uniform Loads (plf)

        Vert: 15-23=-10(F), 1-12=-100(F), 12-14=-280(F)

    Concentrated Loads (lb)

        Vert: 14=-180

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F04	Floor	2	1		E14282410
					Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,
8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:47 2020 Page 1
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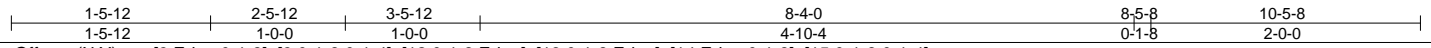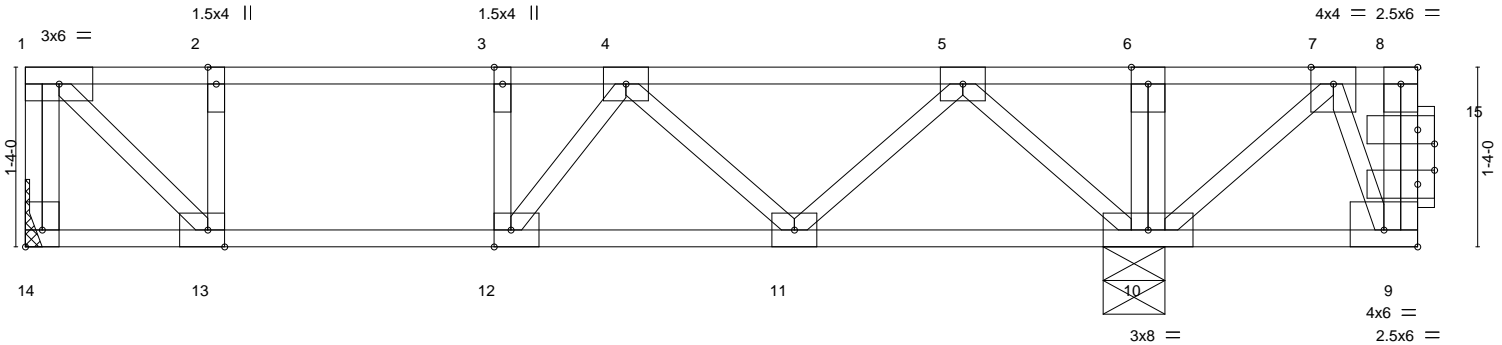
Scale = 1:17.1

Plate Offsets (X,Y)--   [9:Edge,0-1-8], [9:0-1-8,0-1-4], [12:0-1-8,Edge], [13:0-1-8,Edge], [14:Edge,0-1-8], [15:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	0.10	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.42	Vert(CT)	0.11	11-12	>908	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.35	Horz(CT)	-0.01	10	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 61 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
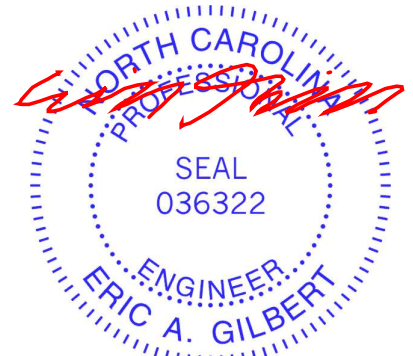
BRACING-
TOP CHORD   Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing,   Except:
            10-0-0 oc bracing: 13-14.

REACTIONS.   (size) 14=Mechanical, 10=0-5-8
            Max Uplift 14=-90(LC 4)
            Max Grav 14=273(LC 3), 10=1869(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-14=-272/157, 8-9=-656/0, 1-2=-254/250, 2-3=-254/250, 3-4=-254/250, 4-5=0/822,
             5-6=0/1404, 6-7=0/1404
BOT CHORD   12-13=-250/254, 11-12=-530/156, 10-11=-1085/0, 9-10=-288/0
WEBS   3-12=-310/0, 6-10=-260/0, 5-10=-877/0, 5-11=0/552, 4-11=-534/0, 4-12=0/536,
             7-10=-1490/0, 7-9=0/722, 1-13=-342/348

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 14.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
8) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 has/have been modified. Building designer must review loads to verify that they are
   correct for the intended use of this truss.
9) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
10) CAUTION, Do not erect truss backwards.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 180 lb down at 10-2-8 on top
    chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard Except:
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
         Vert: 9-14=-10, 1-6=-100, 6-8=-280(F=-180)

April 9,2020

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
						E14282410
P20-04004	F04	Floor	2	1		
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:47 2020 Page 2
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-cwIBOPHa6XL8QUy_WUee120NibjzoUnAJJHEqszSR3M

LOAD CASE(S) Standard Except:

Concentrated Loads (lb)
   Vert: 8=-660(F=-180)
2) Dead: Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10, 1-6=-100, 6-8=-280(F=-180)
   Concentrated Loads (lb)
      Vert: 8=-660(F=-180)
3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10, 1-6=-100, 6-8=-160(F=-140)
   Concentrated Loads (lb)
      Vert: 8=-620(F=-140)
4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10, 1-6=-20, 6-8=-280(F=-180)
   Concentrated Loads (lb)
      Vert: 8=-660(F=-180)
5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10, 1-6=-100, 6-8=-160(F=-140)
   Concentrated Loads (lb)
      Vert: 8=-620(F=-140)
6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10, 1-6=-20, 6-8=-280(F=-180)
   Concentrated Loads (lb)
      Vert: 8=-660(F=-180)
7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10, 1-3=-100, 3-6=-20, 6-8=-280(F=-180)
   Concentrated Loads (lb)
      Vert: 8=-660(F=-180)
8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10, 1-2=-20, 2-6=-100, 6-8=-160(F=-140)
   Concentrated Loads (lb)
      Vert: 8=-620(F=-140)
9) 3rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10, 1-3=-100, 3-6=-20, 6-8=-280(F=-180)
   Concentrated Loads (lb)
      Vert: 8=-660(F=-180)
10) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10, 1-2=-20, 2-6=-100, 6-8=-160(F=-140)
   Concentrated Loads (lb)
      Vert: 8=-620(F=-140)
11) User defined: Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
      Vert: 9-14=-10(F), 1-6=-100(F), 6-8=-280(F)
   Concentrated Loads (lb)
      Vert: 8=-660(F=-180)

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282411
P20-04004	F05	Floor	3	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,
8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:48 2020 Page 1
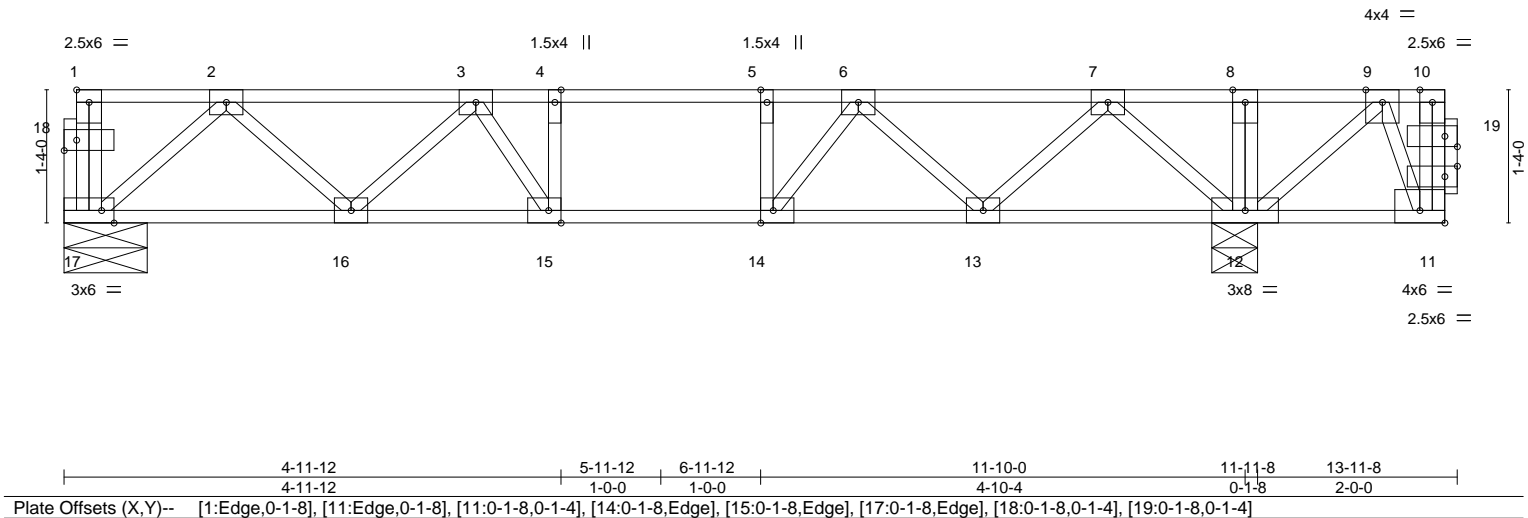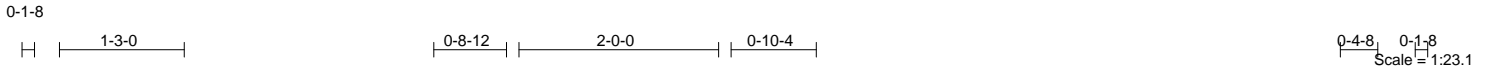ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-47JZblHCtrT?2eXA4C9taFZSh??8XxqJYz1oMJzSR3L

Plate Offsets (X,Y)--	[1:Edge,0-1-8], [11:Edge,0-1-8], [11:0-1-8,0-1-4], [14:0-1-8,Edge], [15:0-1-8,Edge], [17:0-1-8,Edge], [18:0-1-8,0-1-4], [19:0-1-8,0-1-4]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.91	Vert(LL)	-0.09	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.61	Vert(CT)	-0.12	15-16	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	-0.01	12	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 79 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 16-17.

REACTIONS.   (size)   17=0-10-0, 12=0-5-8
Max Grav 17=509(LC 3), 12=1995(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   10-11=-656/0, 2-3=-800/21, 3-4=-909/306, 4-5=-909/306, 5-6=-909/306, 6-7=-98/845,
7-8=0/1404, 8-9=0/1404
BOT CHORD   16-17=0/551, 15-16=-124/986, 14-15=-306/909, 13-14=-570/603, 12-13=-1097/0,
11-12=-287/0
WEBS   5-14=-453/0, 8-12=-257/0, 2-17=-717/0, 2-16=-42/347, 3-16=-259/143, 3-15=-408/76,
7-12=-1063/0, 7-13=0/715, 6-13=-747/0, 6-14=0/772, 9-12=-1490/0, 9-11=0/720

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) CAUTION, Do not erect truss backwards.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard Except:
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 11-17=-10, 1-8=-100, 8-10=-280
Concentrated Loads (lb)
Vert: 10=-660
2) Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 11-17=-10, 1-8=-100, 8-10=-280

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
						E14282411
P20-04004	F05	Floor	3	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:48 2020 Page 2
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-47JZblHCtrT?2eXA4C9taFZSh??8XxqJYz1oMJzSR3L

LOAD CASE(S) Standard Except:
    Concentrated Loads (lb)
        Vert: 10=-660
3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-8=-100, 8-10=-160
    Concentrated Loads (lb)
        Vert: 10=-620
4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-8=-20, 8-10=-280
    Concentrated Loads (lb)
        Vert: 10=-660
5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-8=-100, 8-10=-160
    Concentrated Loads (lb)
        Vert: 10=-620
6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-8=-20, 8-10=-280
    Concentrated Loads (lb)
        Vert: 10=-660
7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-5=-100, 5-8=-20, 8-10=-280
    Concentrated Loads (lb)
        Vert: 10=-660
8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-4=-20, 4-8=-100, 8-10=-160
    Concentrated Loads (lb)
        Vert: 10=-620
9) 3rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-5=-100, 5-8=-20, 8-10=-280
    Concentrated Loads (lb)
        Vert: 10=-660
10) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-4=-20, 4-8=-100, 8-10=-160
    Concentrated Loads (lb)
        Vert: 10=-620
11) User defined: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10(F), 1-8=-100(F), 8-10=-280(F=-100)
    Concentrated Loads (lb)
        Vert: 10=-660

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F06	Floor	4	1	Job Reference (optional)	E14282412

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:49 2020 Page 1
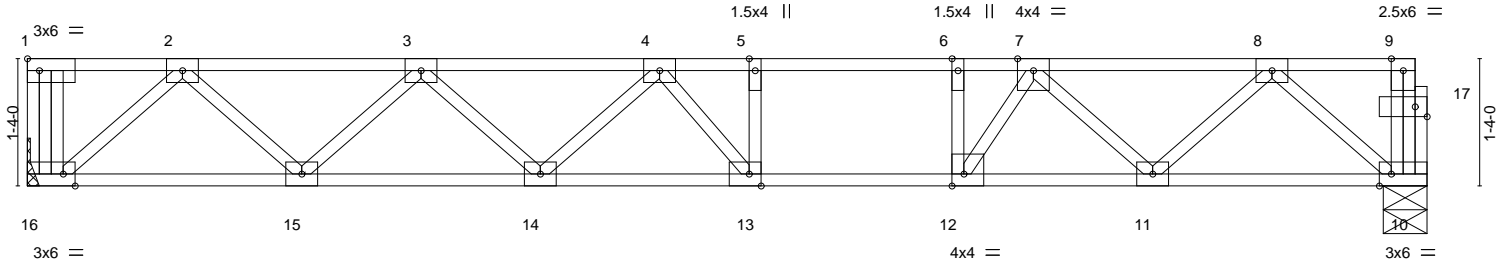ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-YJtxo5lqe8bsgo6Mevg66T6eUPIqGODTndmLulzSR3K
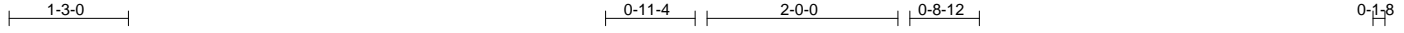
Scale: 1/2"=1'

Plate Offsets (X,Y)-- [10:0-1-8,Edge], [12:0-1-8,Edge], [13:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,0-1-4]

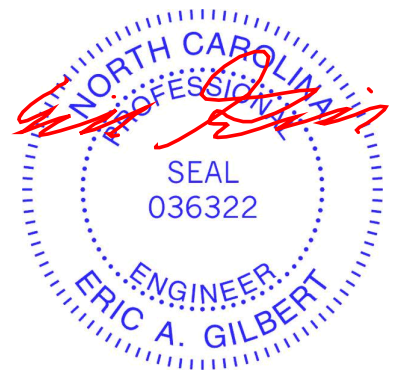| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	-0.17	13-14	>998	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.23	13-14	>736	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 80 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   16=Mechanical, 10=0-5-8
         Max Grav 16=789(LC 1), 10=783(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1425/0, 3-4=-2162/0, 4-5=-2225/0, 5-6=-2225/0, 6-7=-2225/0, 7-8=-1382/0
BOT CHORD   15-16=0/902, 14-15=0/1927, 13-14=0/2330, 12-13=0/2225, 11-12=0/1911, 10-11=0/871
WEBS   6-12=-475/0, 2-16=-1158/0, 2-15=0/727, 3-15=-698/0, 3-14=0/327, 8-10=-1136/0,
             8-11=0/711, 7-11=-734/0, 7-12=0/754, 4-13=-321/220

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
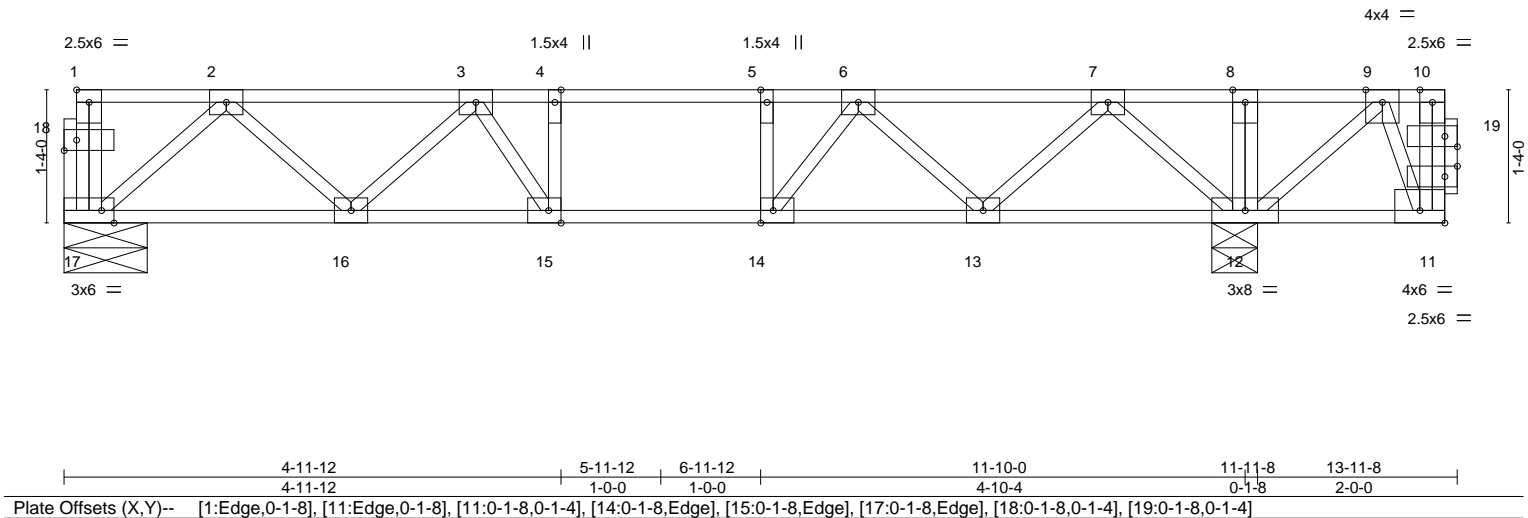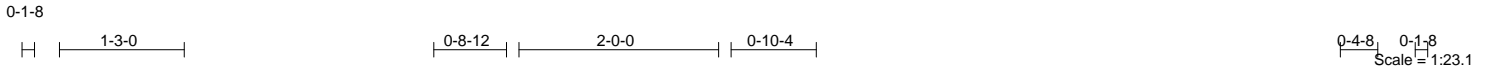8) CAUTION, Do not erect truss backwards.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ERIC A. GILBERT
ENGINEER

April 9,2020

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F07	Floor	1	1		E14282413
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:50 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-1VRJ0QJSPSjjHyhZBdCLfgeoBphc?rJc?GWuQBzSR3J

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [11:Edge,0-1-8], [11:0-1-8,0-1-4], [14:0-1-8,Edge], [15:0-1-8,Edge], [17:0-1-8,Edge], [18:0-1-8,0-1-4], [19:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.91	Vert(LL)	-0.09	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.61	Vert(CT)	-0.12	15-16	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	-0.01	12	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 79 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
             10-0-0 oc bracing: 16-17.

REACTIONS.   (size)   17=0-10-0, 12=0-5-8
             Max Grav 17=509(LC 3), 12=1995(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   10-11=-656/0, 2-3=-800/21, 3-4=-909/306, 4-5=-909/306, 5-6=-909/306, 6-7=-98/845,
              7-8=0/1404, 8-9=0/1404
BOT CHORD   16-17=0/551, 15-16=-124/986, 14-15=-306/909, 13-14=-570/603, 12-13=-1097/0,
              11-12=-287/0
WEBS   5-14=-453/0, 8-12=-257/0, 2-17=-717/0, 2-16=-42/347, 3-16=-259/143, 3-15=-408/76,
              7-12=-1063/0, 7-13=0/715, 6-13=-747/0, 6-14=0/772, 9-12=-1490/0, 9-11=0/720

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
6) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 has/have been modified. Building designer must review loads to verify that they are
   correct for the intended use of this truss.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) CAUTION, Do not erect truss backwards.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard Except:
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
         Vert: 11-17=-10, 1-8=-100, 8-10=-280
   Concentrated Loads (lb)
         Vert: 10=-660
2) Dead: Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
         Vert: 11-17=-10, 1-8=-100, 8-10=-280

April 9,2020

Continued on page 2

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
						E14282413
P20-04004	F07	Floor	1	1		
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:50 2020 Page 2
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-1VRJ0QJSPSjjHyhZBdCLfgeoBphc?rJc?GWuQBzSR3J

LOAD CASE(S) Standard Except:
    Concentrated Loads (lb)
        Vert: 10=-660
3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-8=-100, 8-10=-160
    Concentrated Loads (lb)
        Vert: 10=-620
4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-8=-20, 8-10=-280
    Concentrated Loads (lb)
        Vert: 10=-660
5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-8=-100, 8-10=-160
    Concentrated Loads (lb)
        Vert: 10=-620
6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-8=-20, 8-10=-280
    Concentrated Loads (lb)
        Vert: 10=-660
7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-5=-100, 5-8=-20, 8-10=-280
    Concentrated Loads (lb)
        Vert: 10=-660
8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-4=-20, 4-8=-100, 8-10=-160
    Concentrated Loads (lb)
        Vert: 10=-620
9) 3rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-5=-100, 5-8=-20, 8-10=-280
    Concentrated Loads (lb)
        Vert: 10=-660
10) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10, 1-4=-20, 4-8=-100, 8-10=-160
    Concentrated Loads (lb)
        Vert: 10=-620
11) User defined: Lumber Increase=1.00, Plate Increase=1.00
    Uniform Loads (plf)
        Vert: 11-17=-10(F), 1-8=-100(F), 8-10=-280(F=-100)
    Concentrated Loads (lb)
        Vert: 10=-660

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282414
P20-04004	F08	Floor	7	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:51 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-Vi?iDmK5Amrav5GllKjaBuB6_D50kKWlEwFSzezSR3I

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [9:0-1-8,Edge], [11:0-1-8,Edge], [12:0-1-8,Edge], [14:0-1-8,Edge], [15:0-1-8,0-1-4], [16:0-1-8,0-1-4]

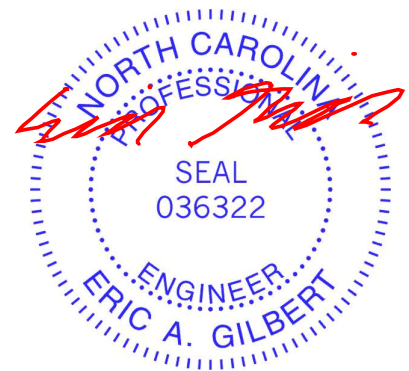| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.06	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.35	Vert(CT)	-0.07	12-13	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 66 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   14=0-10-0, 9=0-5-8
              Max Grav 14=631(LC 1), 9=631(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1059/0, 3-4=-1494/0, 4-5=-1494/0, 5-6=-1494/0, 6-7=-1059/0
BOT CHORD   13-14=0/693, 12-13=0/1397, 11-12=0/1494, 10-11=0/1397, 9-10=0/693
WEBS   4-12=-262/0, 5-11=-262/0, 2-14=-903/0, 2-13=0/509, 3-13=-470/0, 3-12=-22/393,
              7-9=-903/0, 7-10=0/509, 6-10=-470/0, 6-11=-22/393

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.

April 9,2020

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282415
P20-04004	F09	Floor Supported Gable	1	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:51 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-Vi?iDmK5Amrav5GllKjaBuBA0DABkNnIEwFSzezSR3I
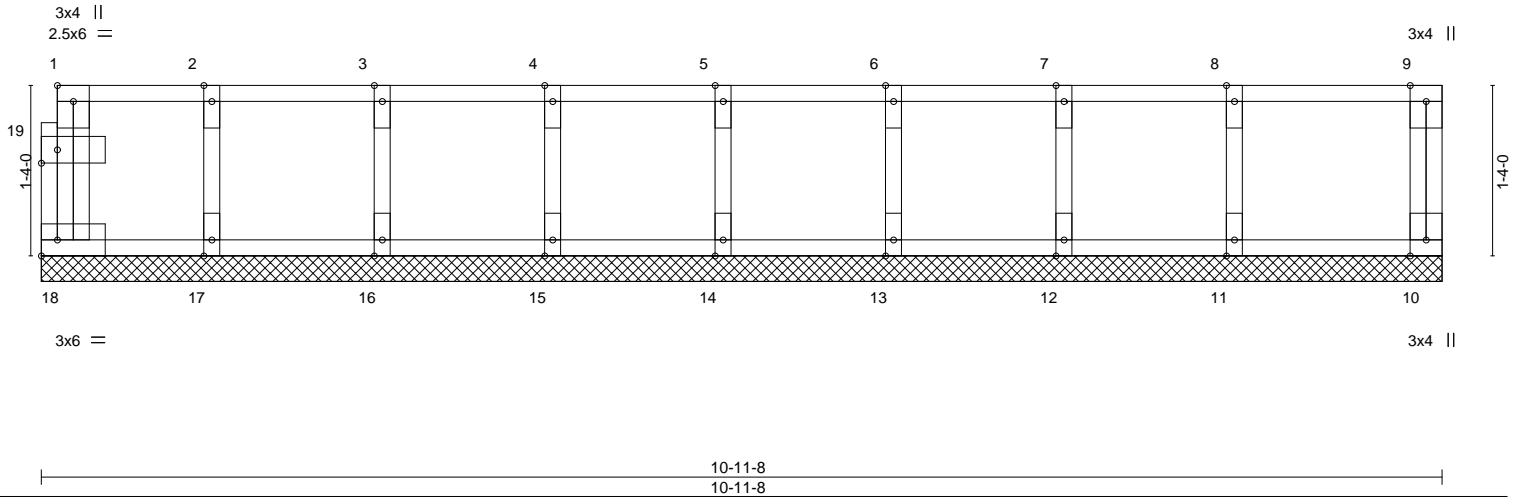
0-1-8

Scale = 1:18.0

3x4 ||
2.5x6 =

3x4 ||

19

1-4-0

1-4-0

3x6 =

3x4 ||

10-11-8

10-11-8

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [19:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 51 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
OTHERS   2x4 SP No.3(flat)

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

REACTIONS.   All bearings 10-11-8.
    (lb) - Max Grav   All reactions 250 lb or less at joint(s) 18, 10, 17, 16, 15, 14, 13, 12, 11

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
9) CAUTION, Do not erect truss backwards.

SEAL
036322

ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F10	Floor	8	1		E14282416
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:52 2020 Page 1

ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-zuY4R6Kjx3zRXFrxJ1Epk5kIzcStTn3vTa??V4zSR3H

0-1-8

1-3-0

0-2-12 2-0-0 0-2-12

Scale = 1:17.8

2.5x6 ═ 1.5x4 || 1.5x4 || 3x6 ═

1 2 3 4 5 6 7 8

15

1-4-0

1-4-0

14 13 12 11 10 9

3x6 ═ 3x6 ═
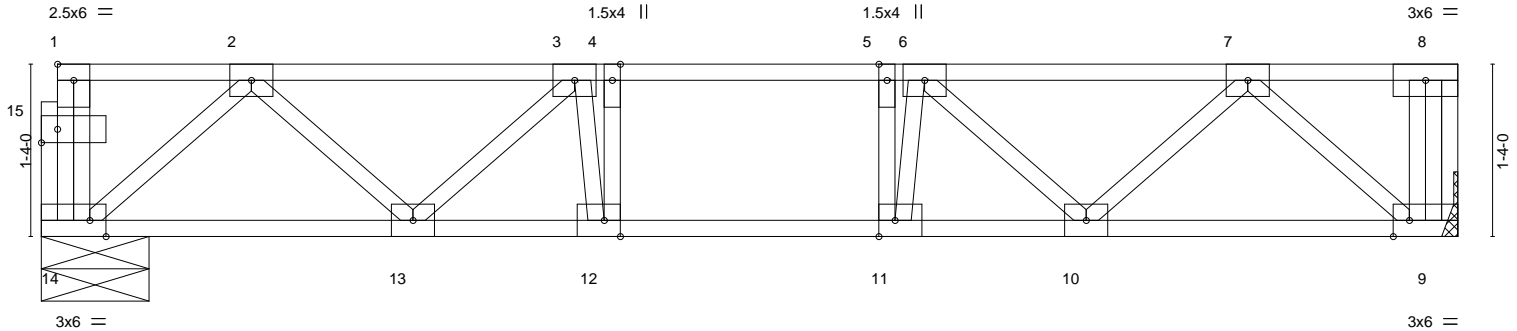
4-5-12 5-5-12 6-5-12 10-11-8
4-5-12 1-0-0 1-0-0 4-5-12

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [9:0-1-8,Edge], [11:0-1-8,Edge], [12:0-1-8,Edge], [14:0-1-8,Edge], [15:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.31	Vert(LL)	-0.05	11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.31	Vert(CT)	-0.06	11	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01	9	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 63 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   14=0-10-0, 9=Mechanical
             Max Grav 14=579(LC 1), 9=586(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-947/0, 3-4=-1258/0, 4-5=-1261/0, 5-6=-1259/0, 6-7=-963/0
BOT CHORD   13-14=0/630, 12-13=0/1243, 11-12=0/1261, 10-11=0/1248, 9-10=0/653
WEBS   4-12=-399/147, 5-11=-385/160, 2-14=-820/0, 2-13=0/441, 3-13=-409/0, 7-9=-839/0,
             7-10=0/431, 6-10=-395/0, 3-12=-178/469, 6-11=-194/451

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) CAUTION, Do not erect truss backwards.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

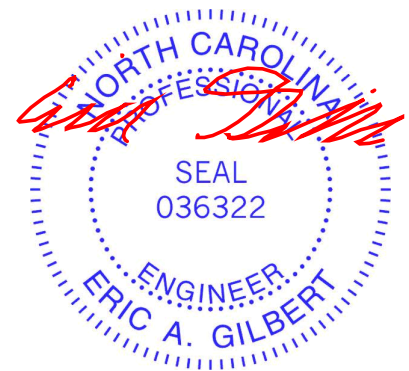| Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282417
P20-04004	F11	Floor	2	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:53 2020 Page 1
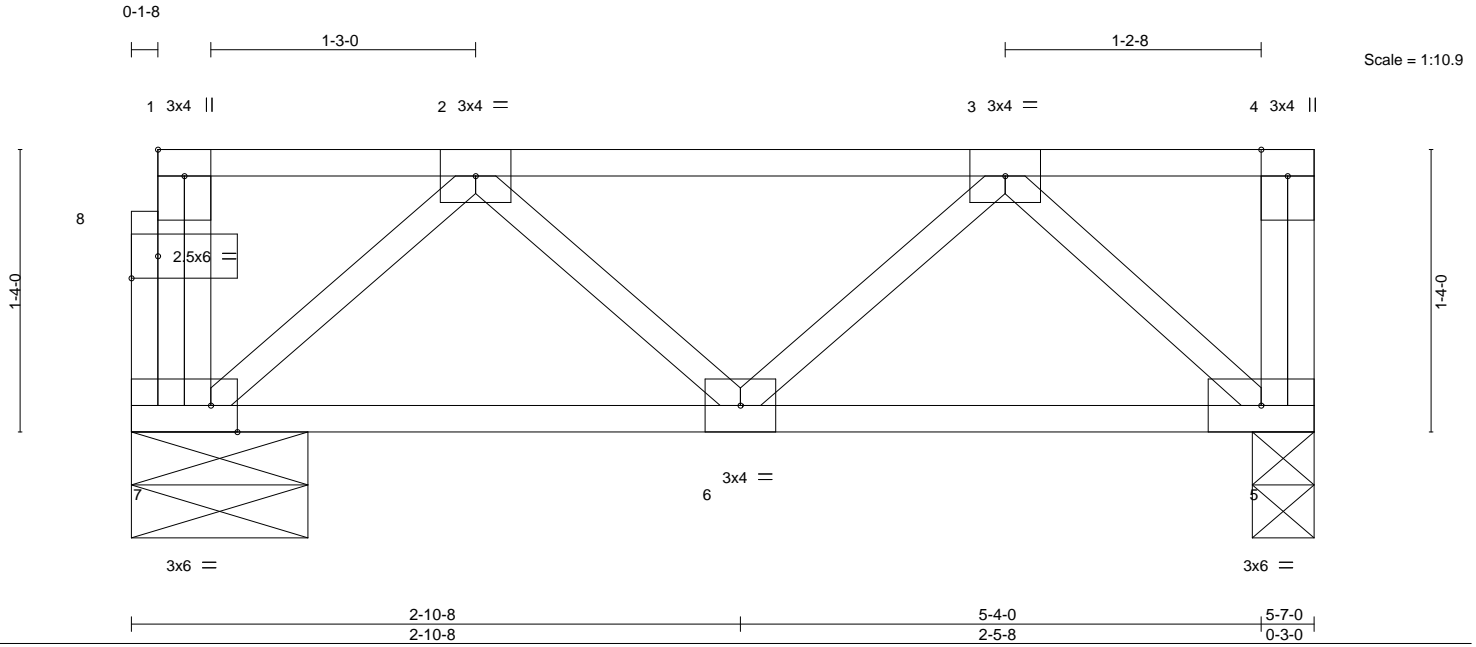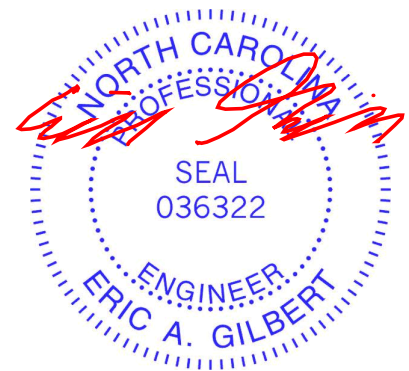ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-R46SeSLLiN5I8PP8tll2GJGVm0rgCGS2iEkY1WzSR3G

Scale = 1:10.9

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.18	Vert(LL)	-0.00	6	>999	480		MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.08	Vert(CT)	-0.01	6-7	>999	360			
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a			
BCDL	5.0	Code IRC2018/TPI2014		Matrix-P								Weight: 34 lb	FT = 8%F, 4%E

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

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 5-7-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   5=0-3-8, 7=0-10-0
              Max Grav 5=290(LC 1), 7=284(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-293/0
BOT CHORD   6-7=0/282, 5-6=0/271
WEBS   2-7=-366/0, 3-5=-365/0

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) Plates checked for a plus or minus 0 degree rotation about its center.
3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F12	Floor Supported Gable	1	1		E14282418
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,
8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:54 2020 Page 1
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0-1-8

Scale = 1:23.1

3x4 ||
2.5x6 =
3x4 ||

25
1-4-0
1-4-0

3x6 =
3x4 ||
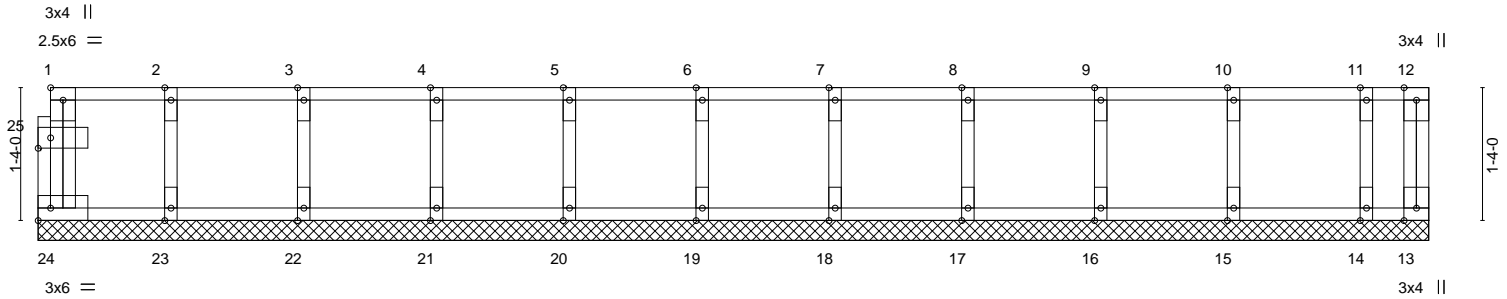
13-11-8
13-11-8

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [25:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	13	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 65 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
OTHERS   2x4 SP No.3(flat)

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

REACTIONS.   All bearings 13-11-8.
    (lb) - Max Grav   All reactions 250 lb or less at joint(s) 24, 13, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Non Standard bearing condition. Review required.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
9) CAUTION, Do not erect truss backwards.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F13	Floor Supported Gable	1	1		E14282419
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:54 2020 Page 1
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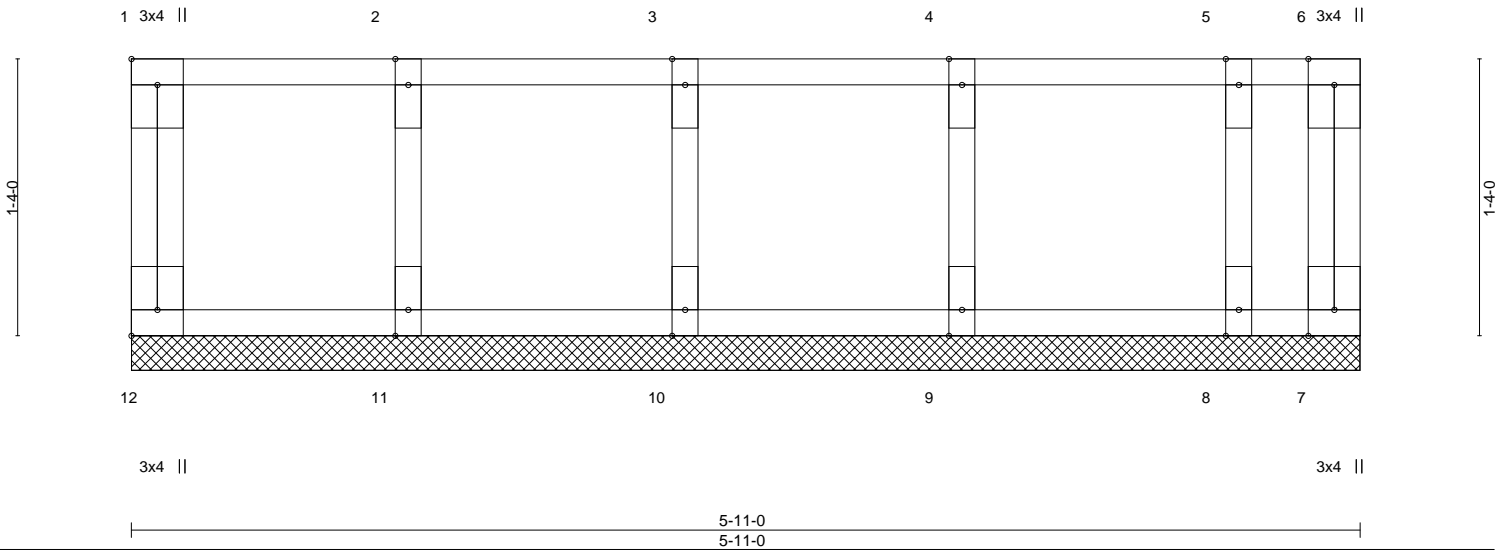
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Plate Offsets (X,Y)--   [1:Edge,0-1-8], [12:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 30 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
OTHERS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 5-11-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   All bearings 5-11-0.
     (lb) - Max Grav   All reactions 250 lb or less at joint(s) 12, 7, 11, 10, 9, 8

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Non Standard bearing condition. Review required.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282420
P20-04004	F14	GABLE	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:55 2020 Page 1
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Scale = 1:10.9

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

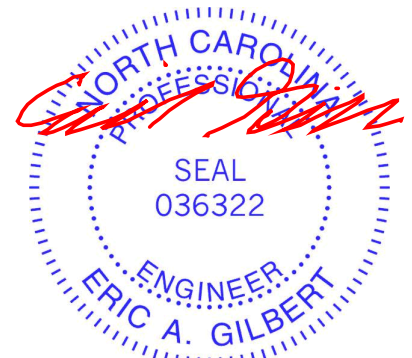| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 30 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
OTHERS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 5-8-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   All bearings 5-8-0.
      (lb) - Max Grav   All reactions 250 lb or less at joint(s) 12, 7, 8, 9, 11, 10

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
						E14282421
P20-04004	F15	Floor Supported Gable	1	1		
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:56 2020 Page 1
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11-10-8

11-10-8
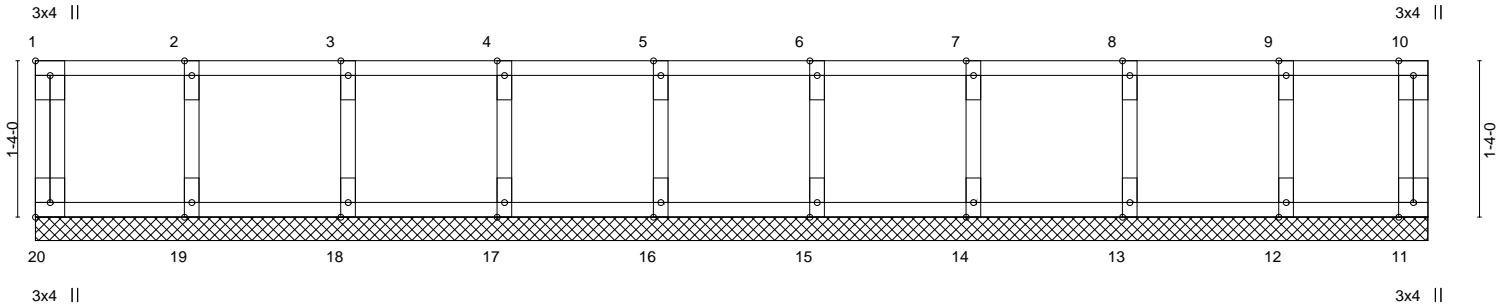
Plate Offsets (X,Y)--   [1:Edge,0-1-8], [20:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	11	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 55 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
OTHERS   2x4 SP No.3(flat)

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

REACTIONS.   All bearings 11-10-8.
        (lb) - Max Grav   All reactions 250 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 13, 12

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Non Standard bearing condition. Review required.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F16	Floor Supported Gable	1	1		E14282422
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:56 2020 Page 1
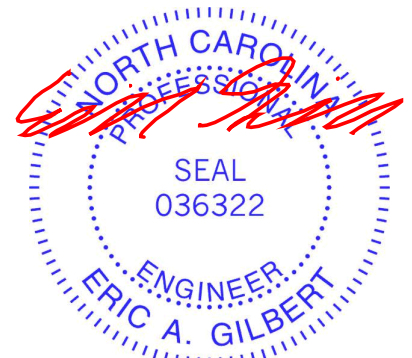ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-rfobGUOD_IUs?t8jYtIluxu2vEtSPe2VOCzDerzSR3D
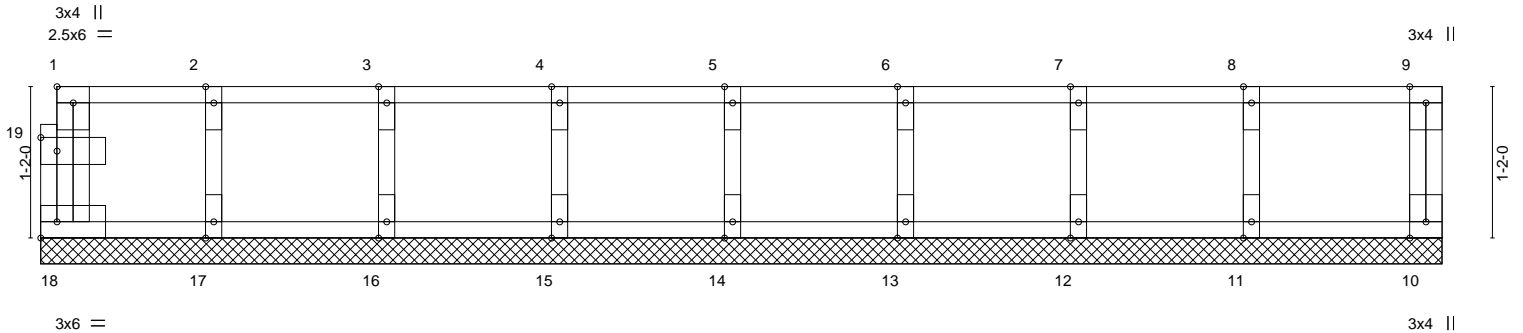
0-1-8

Scale = 1:17.8

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [19:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 48 lb	FT = 8%F, 4%E

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		

REACTIONS.   All bearings 10-9-10.
   (lb) - Max Grav   All reactions 250 lb or less at joint(s) 18, 10, 17, 16, 15, 14, 13, 12, 11

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Non Standard bearing condition. Review required.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
9) CAUTION, Do not erect truss backwards.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F17	Floor Supported Gable	1	1		E14282423
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:57 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-KsMzUqOrlccjd0jv6bq?R9RDgdDj85JecsimAHzSR3C
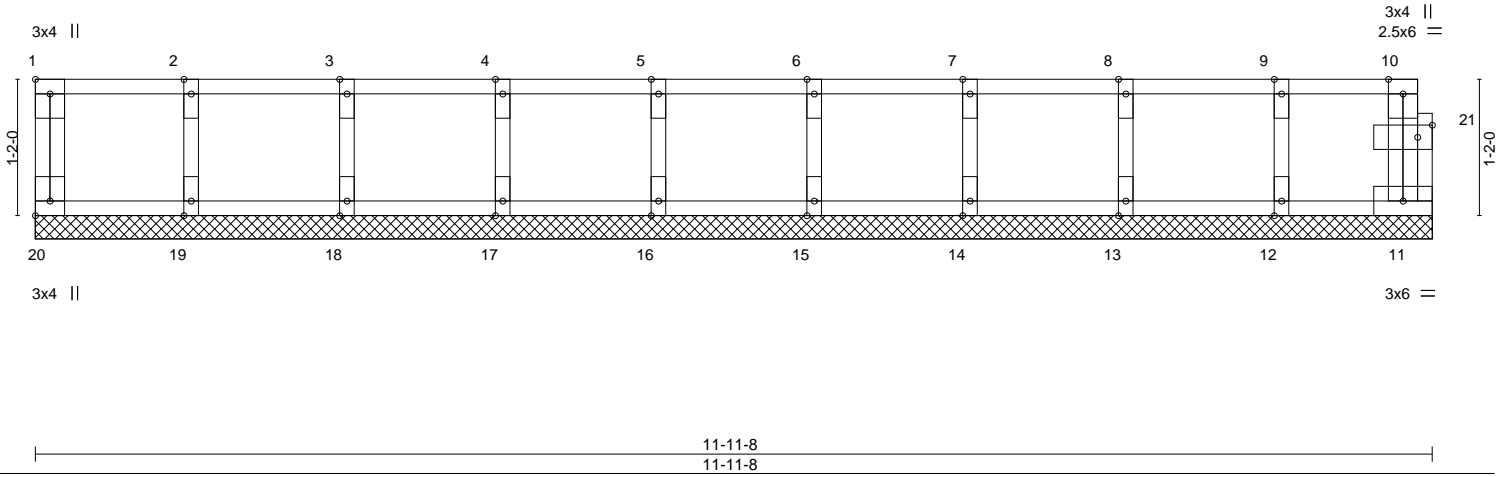
0-1-8

Scale = 1:19.7

11-11-8
11-11-8

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [20:Edge,0-1-8], [21:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	11	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 53 lb	FT = 8%F, 4%E

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		

REACTIONS.   All bearings 11-11-8.
    (lb) - Max Grav   All reactions 250 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 13, 12

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
9) CAUTION, Do not erect truss backwards.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F18	Floor	3	1		E14282424
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:58 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-o2wLhAPUWvkaFAI5fILEzM_B31MytT8nrWSJikzSR3B

0-1-8

1-3-0		0-8-12	2-0-0	0-11-6

Scale: 1/2"=1'

4-11-12		5-11-12	6-11-12		14-8-2
4-11-12		1-0-0	1-0-0		7-8-6

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [10:0-1-8,Edge], [13:0-1-8,Edge], [14:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	-0.20	12-13	>876	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.27	12-13	>638	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.04	10	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 76 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   16=0-3-8, 10=Mechanical
            Max Grav 16=784(LC 1), 10=790(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1603/0, 3-4=-2581/0, 4-5=-2581/0, 5-6=-2581/0, 6-7=-2507/0, 7-8=-1652/0
BOT CHORD   15-16=0/1010, 14-15=0/2215, 13-14=0/2581, 12-13=0/2703, 11-12=0/2234, 10-11=0/1045
WEBS   4-14=-477/0, 2-16=-1245/0, 2-15=0/771, 3-15=-797/0, 3-14=0/793, 8-10=-1273/0,
              8-11=0/789, 7-11=-758/0, 7-12=0/356, 6-12=-270/0, 6-13=-342/235

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) CAUTION, Do not erect truss backwards.

SEAL
036322
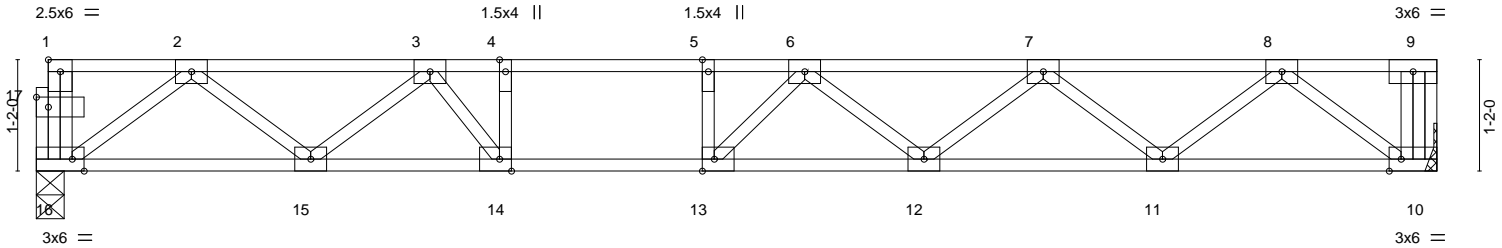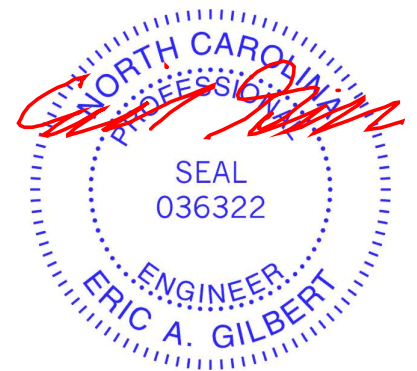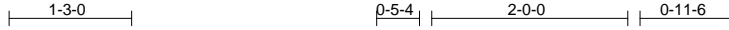ERIC A. GILBERT
NORTH CAROLINA
PROFESSIONAL ENGINEER

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

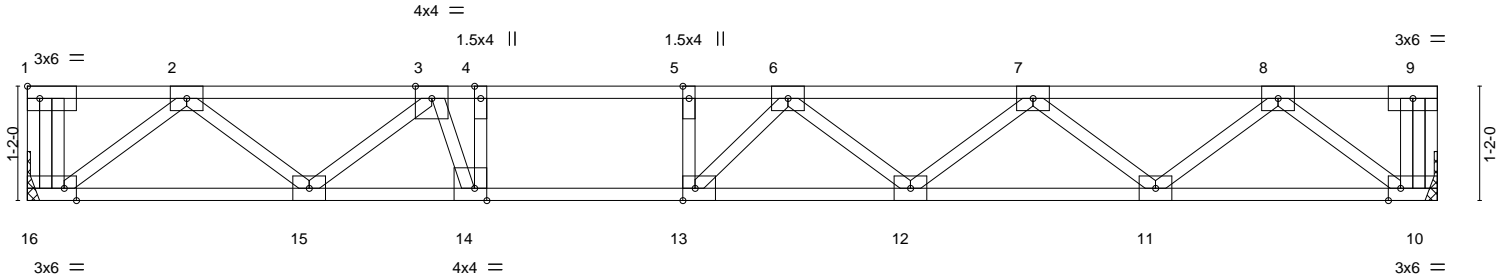| Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282425
P20-04004	F19	Floor	3	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:59 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-GEUjvVQ6HDsRsKtHD0sTWaWLYRjWcvox4ABtFAzSR3A

Scale = 1:23.5

Plate Offsets (X,Y)--	[10:0-1-8,Edge], [13:0-1-8,Edge], [14:0-1-8,Edge], [16:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.93	Vert(LL)	-0.19	12-13	>884	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.26	12-13	>643	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.04	10	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 76 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 2-2-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   16=Mechanical, 10=Mechanical
Max Grav 16=777(LC 1), 10=777(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1603/0, 3-4=-2453/0, 4-5=-2482/0, 5-6=-2482/0, 6-7=-2445/0, 7-8=-1619/0
BOT CHORD   15-16=0/1028, 14-15=0/2216, 13-14=0/2482, 12-13=0/2626, 11-12=0/2186, 10-11=0/1028
WEBS   4-14=-648/0, 2-16=-1252/0, 2-15=0/747, 3-15=-795/0, 8-10=-1251/0, 8-11=0/769,
             7-11=-738/0, 7-12=0/337, 6-12=-253/0, 3-14=0/872, 6-13=-359/208

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.

April 9,2020

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F20	Floor	1	1	Job Reference (optional)	E14282426

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:42:59 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-GEUjvVQ6HDsRsKtHD0sTWaWMpRiBcwOx4ABtFAzSR3A

0-1-8

1-3-0   0-8-12   2-0-0   0-11-6

Scale: 1/2"=1'

2.5x6 ═   1.5x4 ∥   1.5x4 ∥   3x6 ═

1-2-0   1-2-0

3x6 ═   3x6 ═

	4-11-12	5-11-12	6-11-12	14-8-2	
	4-11-12	1-0-0	1-0-0	7-8-6	

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [10:0-1-8,Edge], [13:0-1-8,Edge], [14:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,0-1-4]
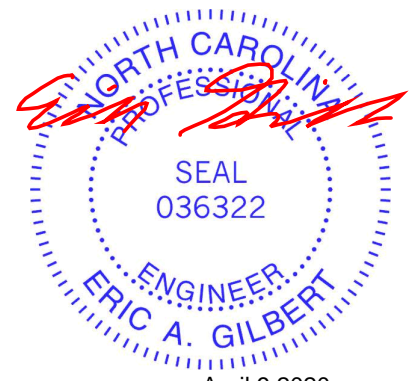
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	-0.20	12-13	>876	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.27	12-13	>638	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.04	10	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 76 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   16=0-3-8, 10=Mechanical
              Max Grav 16=784(LC 1), 10=790(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1603/0, 3-4=-2581/0, 4-5=-2581/0, 5-6=-2581/0, 6-7=-2507/0, 7-8=-1652/0
BOT CHORD   15-16=0/1010, 14-15=0/2215, 13-14=0/2581, 12-13=0/2703, 11-12=0/2234, 10-11=0/1045
WEBS   4-14=-477/0, 2-16=-1245/0, 2-15=0/771, 3-15=-797/0, 3-14=0/793, 8-10=-1273/0,
             8-11=0/789, 7-11=-758/0, 7-12=0/356, 6-12=-270/0, 6-13=-342/235

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) CAUTION, Do not erect truss backwards.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F21	Floor	7	1		E14282427
					Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,
8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:00 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-kQ156rRk2X_IUUSUnjNi3n3gAr9RLP44JqxQnczSR39

1-3-0   1-3-15   2-0-0   0-2-11   0-1-8

Scale = 1:17.7

4-3-15 / 5-3-15 / 6-3-15 / 10-9-10
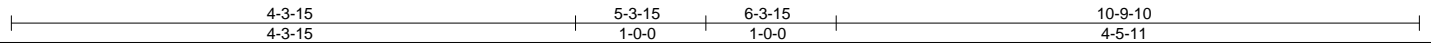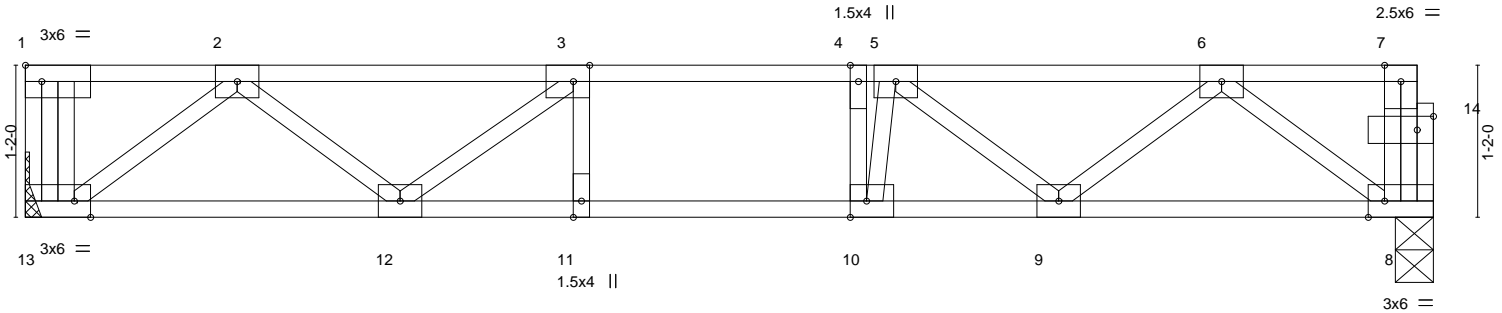4-3-15 / 1-0-0 / 1-0-0 / 4-5-11

Plate Offsets (X,Y)-- [3:0-1-8,Edge], [8:0-1-8,Edge], [10:0-1-8,Edge], [13:0-1-8,Edge], [14:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	-0.06	9-10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.39	Vert(CT)	-0.07	11	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 58 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   13=Mechanical, 8=0-3-8
Max Grav 13=577(LC 1), 8=571(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1089/0, 3-4=-1425/0, 4-5=-1423/0, 5-6=-1075/0
BOT CHORD   12-13=0/750, 11-12=0/1425, 10-11=0/1425, 9-10=0/1410, 8-9=0/718
WEBS   4-10=-372/150, 2-13=-913/0, 2-12=0/441, 6-8=-883/0, 6-9=0/465, 5-9=-435/0,
             3-12=-453/0, 5-10=-203/463

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) CAUTION, Do not erect truss backwards.

April 9,2020

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

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:01 2020 Page 1
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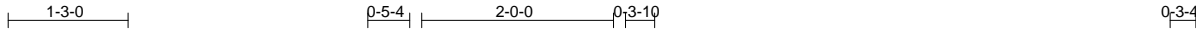
Scale: 1/2"=1'
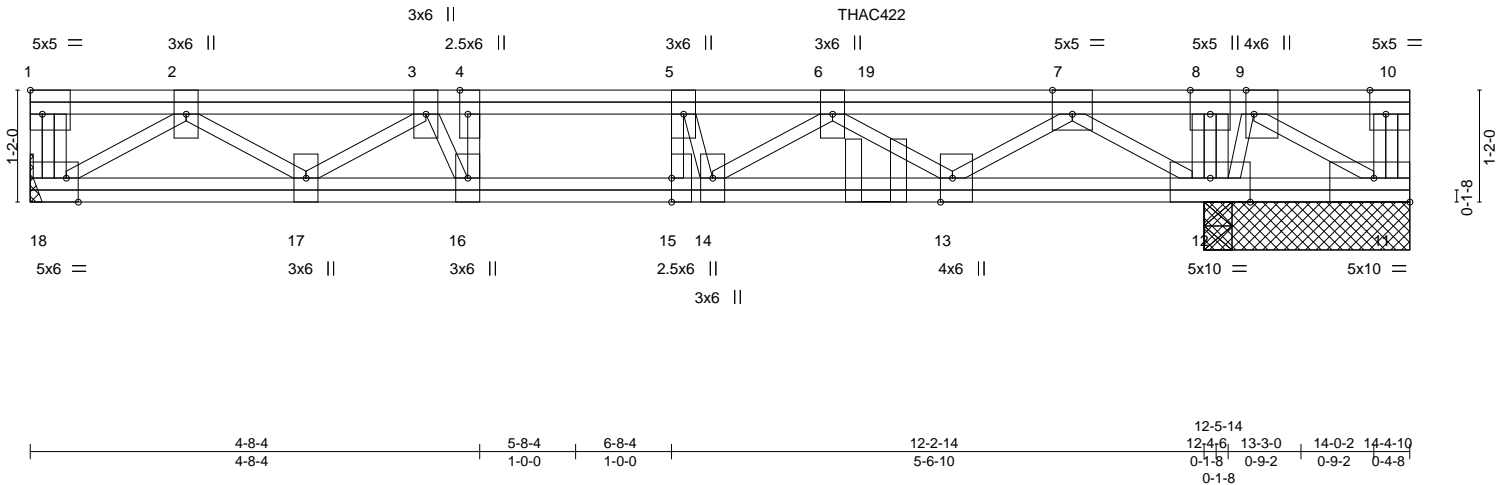
Plate Offsets (X,Y)--   [1:Edge,0-3-0], [4:0-3-0,Edge], [7:0-2-8,Edge], [8:0-3-0,Edge], [9:0-3-0,Edge], [10:0-2-0,Edge], [11:Edge,0-3-0], [12:0-5-0,Edge], [13:0-3-0,Edge], [15:0-3-0,0-0-0], [18:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	-0.04	15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.24	Vert(CT)	-0.06	15	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.01	12	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 117 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
             6-0-0 oc bracing: 12-13,11-12.

REACTIONS.   (size)   12=2-1-12, 12=2-1-12, 18=Mechanical, 11=2-1-12
              Max Uplift 11=-785(LC 3)
              Max Grav 12=1932(LC 1), 12=1932(LC 1), 18=631(LC 3)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1339/0, 3-4=-1852/0, 4-5=-1863/0, 5-6=-1826/0, 6-7=-731/0, 7-8=0/1551,
             8-9=0/1551
BOT CHORD   17-18=0/879, 16-17=0/1774, 15-16=0/1863, 14-15=0/1864, 13-14=0/1630, 11-12=-1201/0
WEBS   4-16=-318/0, 2-18=-1046/0, 2-17=0/571, 3-17=-539/0, 7-12=-1634/0, 7-13=0/1114,
   6-13=-1117/0, 6-14=-103/262, 9-11=0/1425, 3-16=0/441, 9-12=-857/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 785 lb uplift at joint 11.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) CAUTION, Do not erect truss backwards.
9) Use Simpson Strong-Tie THAC422 (6-16d Girder, 6-16d Truss) or equivalent at 8-9-13 from the left end to connect truss(es) to back
   face of top chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
       Vert: 11-18=-10, 1-10=-100
   Concentrated Loads (lb)
       Vert: 19=-301(B)
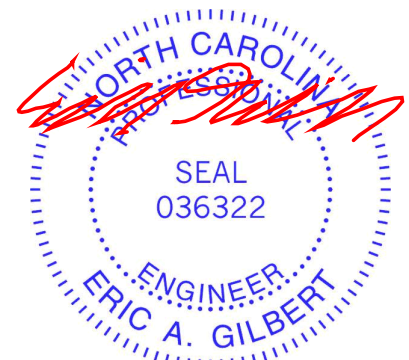
April 9,2020

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

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:02 2020 Page 1
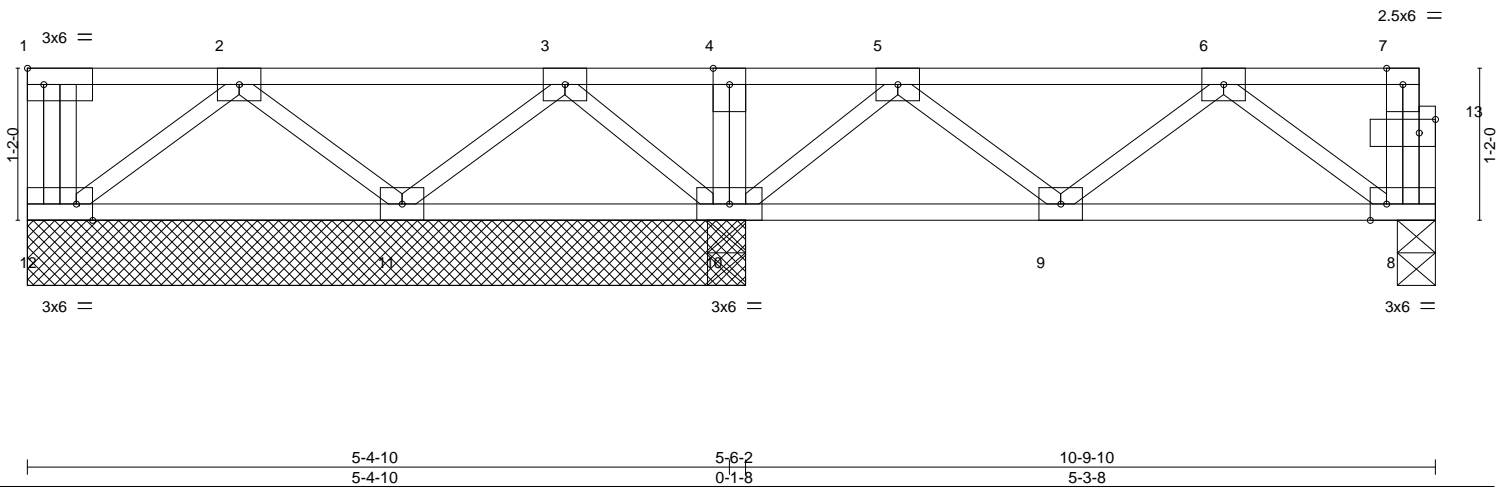ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-gp9sXXS_a8E0jobsu8PA8C81EevlpLPNm8QXrVzSR37

1-3-0   1-1-10   1-2-0   0-1-8

Scale = 1:17.7

5-4-10   5-6-2   10-9-10
5-4-10   0-1-8   5-3-8

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

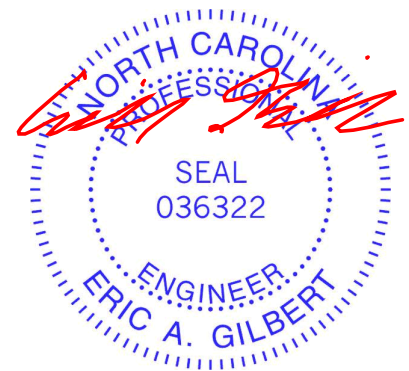| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	-0.00	9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.08	Vert(CT)	-0.01	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 61 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
              6-0-0 oc bracing: 10-11.

REACTIONS.   All bearings 5-6-2 except (jt=length) 8=0-3-8.
   (lb) - Max Grav   All reactions 250 lb or less at joint(s) 12, 8 except 10=521(LC 1), 10=521(LC 1), 11=293(LC 3)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD   8-9=0/275
WEBS   6-8=-337/0, 5-10=-447/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
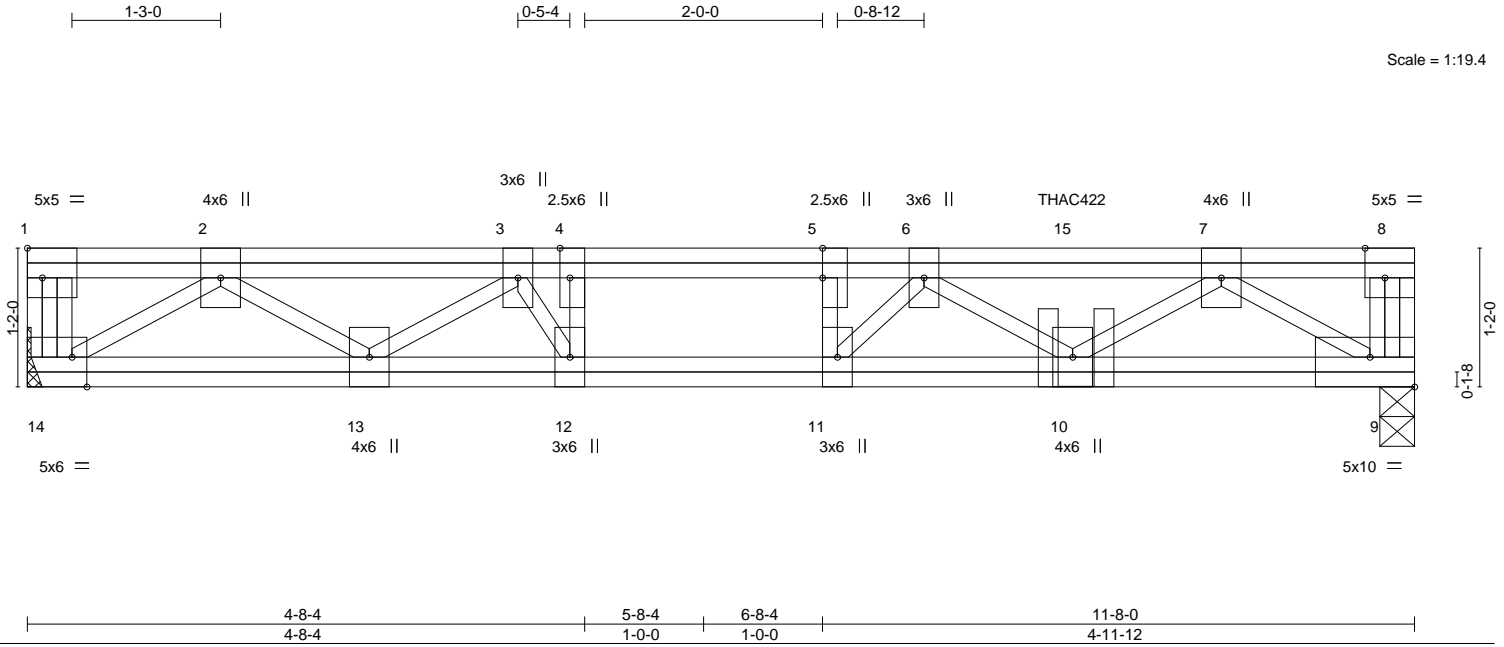7) CAUTION, Do not erect truss backwards.

SEAL
036322
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282430
P20-04004	F24	Floor Girder	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,
8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:03 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-8?jEktTcLSMtLxA3SrwPgQhA?2CZYk4W?o94OxzSR36

1-3-0   0-5-4   2-0-0   0-8-12

Scale = 1:19.4

3x6 ||

5x5 =   4x6 || 2.5x6 || 2.5x6 || 3x6 || THAC422   4x6 || 5x5 =
1   2   3   4   5   6   15   7   8

1-2-0

1-2-0

0-1-8

14   13   12   11   10   9
4x6 || 3x6 || 3x6 || 4x6 ||

5x6 =   5x10 =

4-8-4	5-8-4	6-8-4	11-8-0
4-8-4	1-0-0	1-0-0	4-11-12

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	-0.05	11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.30	Vert(CT)	-0.07	11	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.01	9	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 93 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
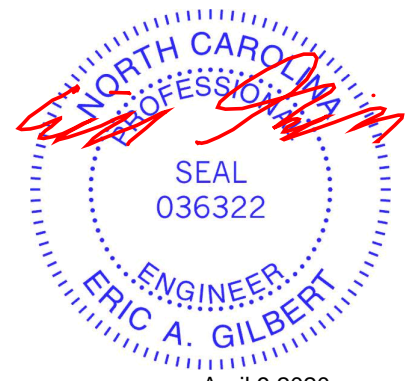
BRACING-
TOP CHORD   Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   14=Mechanical, 9=0-3-8
              Max Grav 14=682(LC 1), 9=806(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1482/0, 3-4=-2167/0, 4-5=-2167/0, 5-6=-2167/0, 6-7=-1743/0
BOT CHORD   13-14=0/955, 12-13=0/2006, 11-12=0/2167, 10-11=0/2235, 9-10=0/1200
WEBS   4-12=-413/0, 2-14=-1137/0, 2-13=0/653, 3-13=-650/0, 7-9=-1425/0, 7-10=0/673,
              6-10=-610/0, 3-12=0/593, 6-11=-293/39

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) Use Simpson Strong-Tie THAC422 (6-16d Girder, 6-16d Truss) or equivalent at 8-9-13 from the left end to connect truss(es) to front
   face of top chord.
8) Fill all nail holes where hanger is in contact with lumber.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
         Vert: 9-14=-10, 1-8=-100
   Concentrated Loads (lb)
         Vert: 15=-234(F)

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F25	Floor	2	1		E14282431
					Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:04 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-cCHcyDUE6lUkz5lF0ZSeDdEKCSWQHDbgDSvewNzSR35

Scale = 1:19.0

Plate Offsets (X,Y)--   [9:0-1-8,Edge], [11:0-1-8,Edge], [12:0-1-8,Edge], [14:0-1-8,Edge]
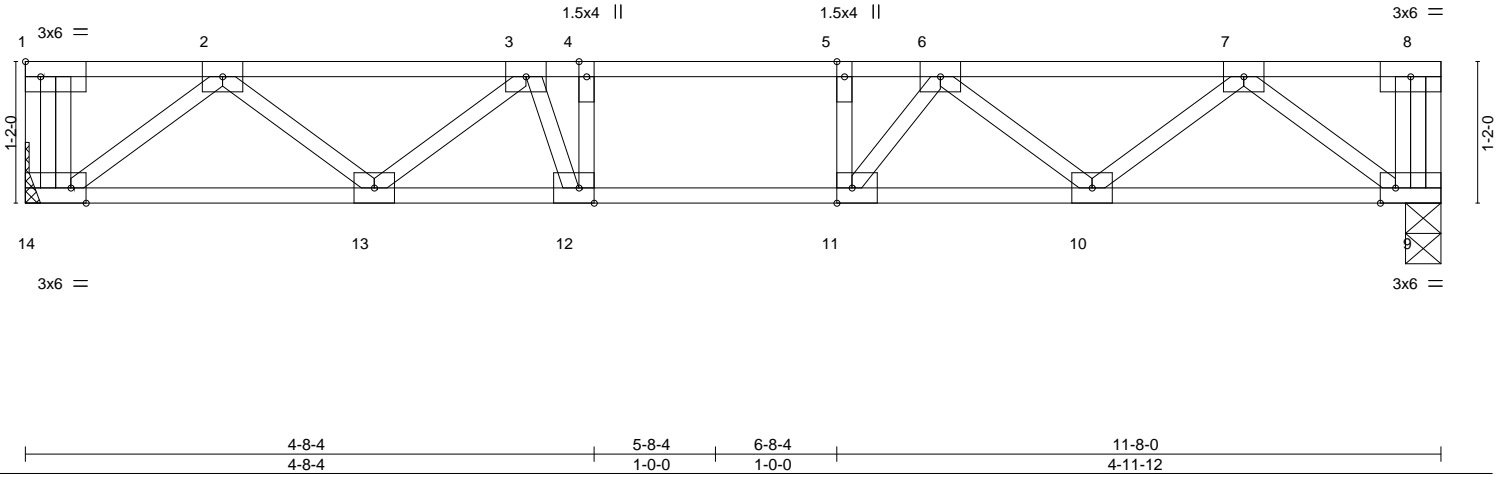
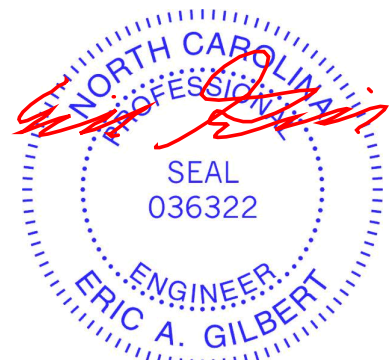| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.07	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.39	Vert(CT)	-0.09	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 63 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   14=Mechanical, 9=0-3-8
                Max Grav 14=628(LC 1), 9=628(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1223/0, 3-4=-1672/0, 4-5=-1680/0, 5-6=-1680/0, 6-7=-1225/0
BOT CHORD   13-14=0/818, 12-13=0/1607, 11-12=0/1680, 10-11=0/1594, 9-10=0/819
WEBS   4-12=-350/38, 2-14=-996/0, 2-13=0/528, 3-13=-497/0, 7-9=-998/0, 7-10=0/528,
                6-10=-480/0, 3-12=-69/452, 6-11=-48/377

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.

April 9,2020

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	F26	Floor	7	1		E14282432
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,
8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:04 2020 Page 1
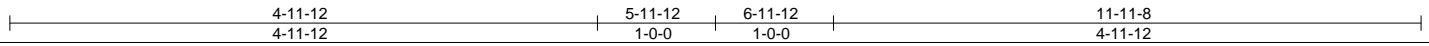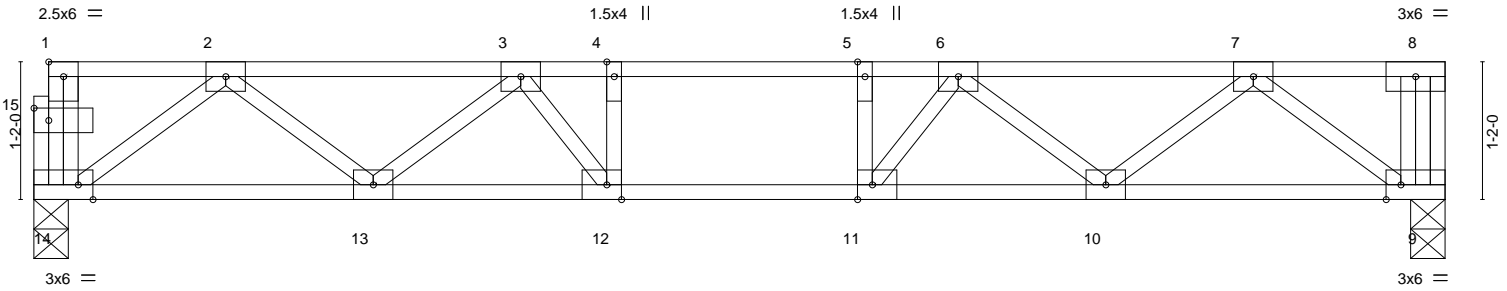ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-cCHcyDUE6lUkz5lF0ZSeDdEKZSWMHCNgDSvewNzSR35

0-1-8

1-3-0   0-8-12   2-0-0   0-8-12

Scale = 1:19.5

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [9:0-1-8,Edge], [11:0-1-8,Edge], [12:0-1-8,Edge], [14:0-1-8,Edge], [15:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.07	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.39	Vert(CT)	-0.09	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 63 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   14=0-3-8, 9=0-3-8
Max Grav 14=634(LC 1), 9=640(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1235/0, 3-4=-1750/0, 4-5=-1750/0, 5-6=-1750/0, 6-7=-1257/0
BOT CHORD   13-14=0/808, 12-13=0/1632, 11-12=0/1750, 10-11=0/1643, 9-10=0/837
WEBS   4-12=-267/0, 5-11=-260/0, 2-14=-995/0, 2-13=0/557, 3-13=-517/0, 3-12=-18/421,
             7-9=-1020/0, 7-10=0/547, 6-10=-502/0, 6-11=-31/408

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

April 9,2020

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

0-1-8   0-1-8

Scale = 1:33.3

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [37:0-1-8,0-1-4], [38:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	19	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 87 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
OTHERS   2x4 SP No.3(flat)

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

REACTIONS.   All bearings 19-11-0.
    (lb) - Max Grav   All reactions 250 lb or less at joint(s) 36, 19, 27, 20, 21, 22, 23, 24, 25, 26, 35, 34, 33, 32, 30, 29, 28

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

April 9,2020

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

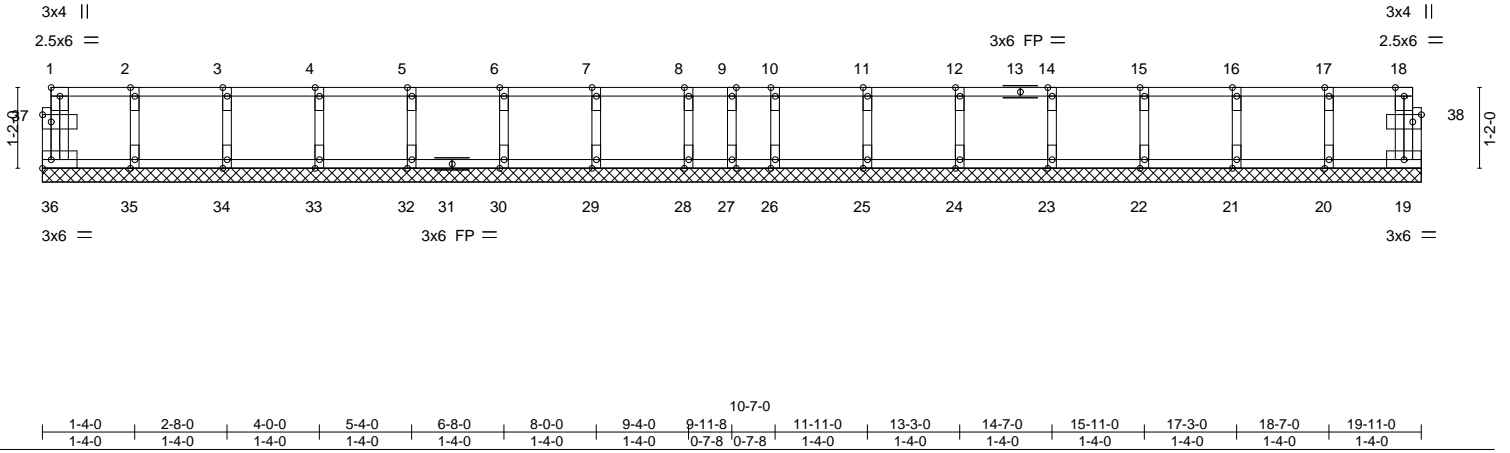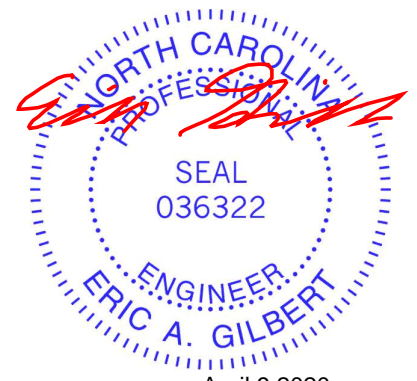| Job	Truss	Truss Type		Qty	Ply	JOB 09-2020-020	E14282434
P20-04004	F28	Floor		3	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:06 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-ZaPNNvVVeNkSCPve7_U6I2Jc7G8zl0pzhmOk?GzSR33

0-1-8

1-3-0   0-11-8 | 2-0-0 | 0-11-8   0-1-8
                                                    Scale = 1:33.9

2.5x6   4x4   3x6 FP   4x4   2.5x6
 1   2   3   4   5   6   7   8   9   10   11
                                                                              26

24   23   22 21 20   19   18   17 16   15 14   13   12
3x8   4x4   3x6 FP   3x6 ‖ 2.5x6 ‖   2.5x6 ‖ 3x6 ‖   5x5   4x4   3x8

                    1.5x4 SP

                    5x5

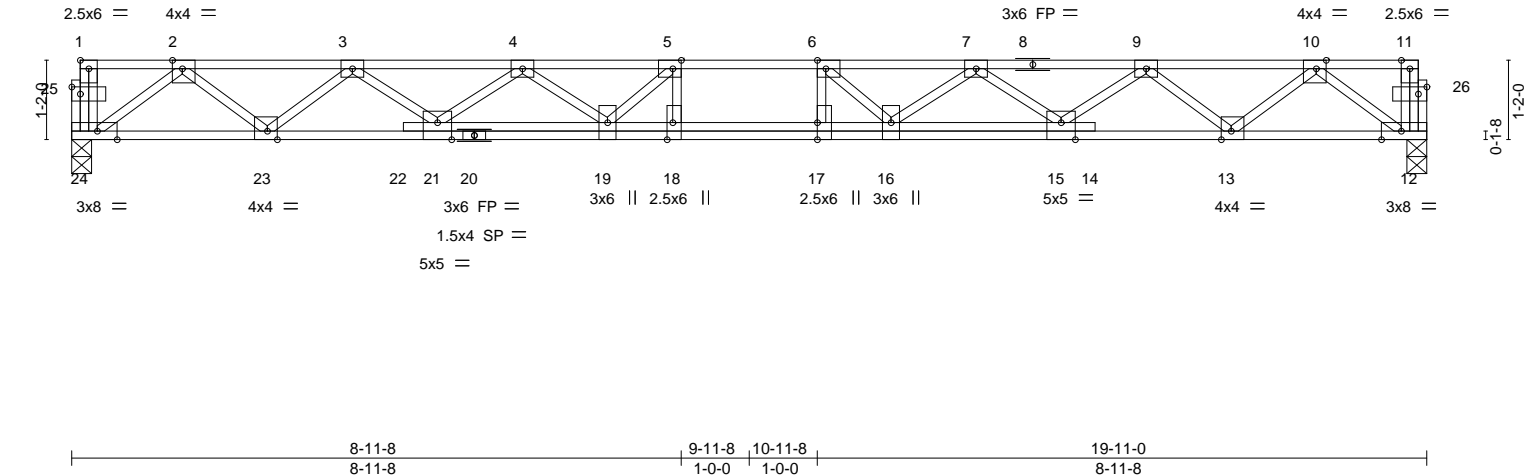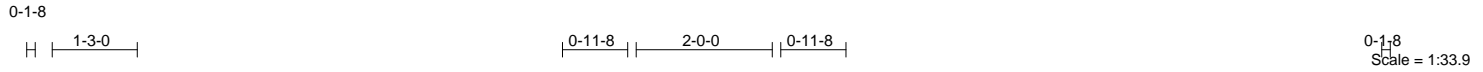| 8-11-8	9-11-8	10-11-8	19-11-0
8-11-8	1-0-0	1-0-0	8-11-8

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [2:0-1-12,Edge], [5:0-1-8,Edge], [6:0-1-8,Edge], [10:0-1-12,Edge], [12:0-3-8,Edge], [13:0-1-12,Edge], [15:0-2-8,Edge], [17:0-3-0,0-0-0], [18:0-3-0,Edge], [21:0-2-8,Edge], [23:0-1-12,Edge], [24:0-3-8,Edge], [25:0-1-8,0-1-4], [26:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.37	17-18	>629	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.51	17-18	>457	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.07	12	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 115 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 5-1-10 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   12=0-3-8, 24=0-3-8
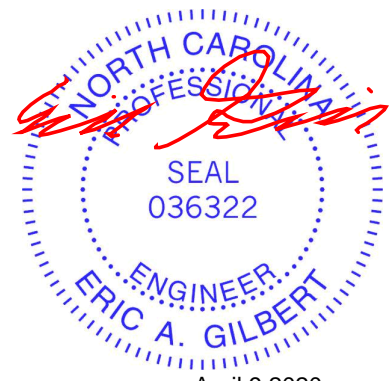   Max Grav 12=1069(LC 1), 24=1069(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2344/0, 3-4=-3988/0, 4-5=-5070/0, 5-6=-5277/0, 6-7=-5070/0, 7-9=-3988/0,
             9-10=-2344/0
BOT CHORD   23-24=0/1393, 21-23=0/3300, 19-21=0/4682, 18-19=0/5277, 17-18=0/5277, 16-17=0/5277,
             15-16=0/4682, 13-15=0/3300, 12-13=0/1393
WEBS   5-18=-320/306, 6-17=-320/306, 2-24=-1718/0, 2-23=0/1238, 3-23=-1244/0, 3-21=0/874,
             4-21=-882/0, 4-19=0/576, 5-19=-670/181, 10-12=-1718/0, 10-13=0/1238, 9-13=-1244/0,
             9-15=0/874, 7-15=-882/0, 7-16=0/576, 6-16=-670/181

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) The Fabrication Tolerance at joint 20 = 4%
5) Plates checked for a plus or minus 0 degree rotation about its center.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.

SEAL
036322
ERIC A. GILBERT
NORTH CAROLINA
PROFESSIONAL
ENGINEER

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282435
P20-04004	F29	Floor	7	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:07 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-1nylaEW7PgsJqZUqhh?LrGrnnfS2UT16wQ7IXizSR32

Scale = 1:33.6
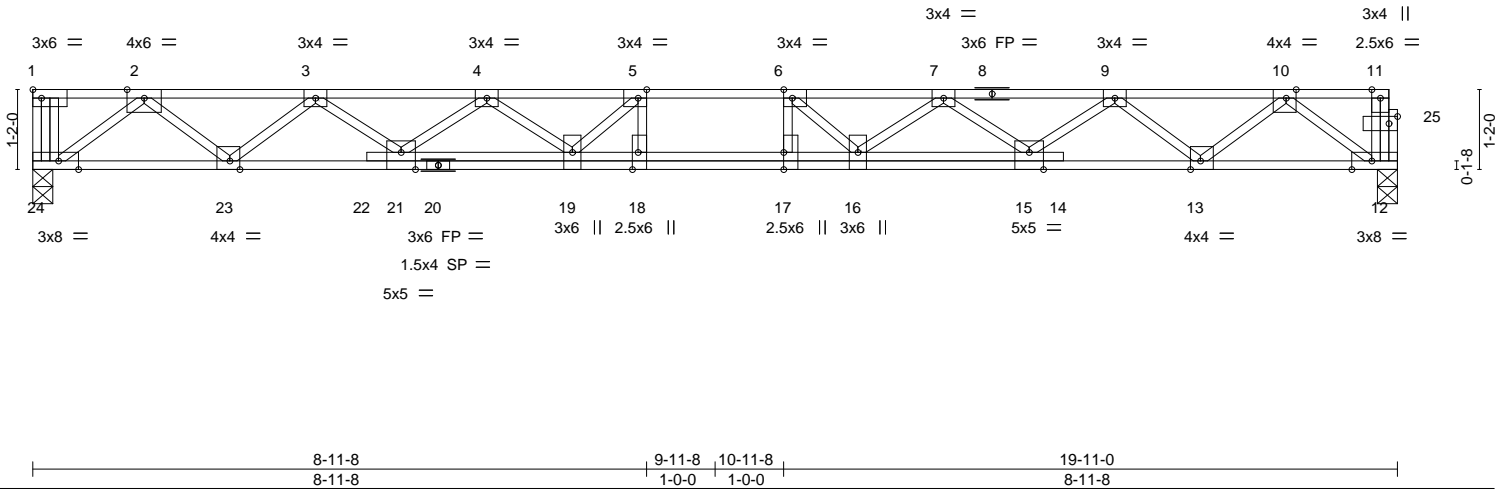
Plate Offsets (X,Y)-- [5:0-1-8,Edge], [6:0-1-8,Edge], [10:0-1-12,Edge], [12:0-3-8,Edge], [13:0-1-12,Edge], [15:0-2-8,Edge], [17:0-3-0,0-0-0], [18:0-3-0,Edge], [21:0-2-8,Edge], [23:0-1-12,Edge], [24:0-3-8,Edge], [25:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.38	17-18	>623	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.71	Vert(CT)	-0.52	17-18	>452	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.07	12	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 115 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 5-1-3 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   12=0-3-8, 24=0-3-8
            Max Grav   12=1072(LC 1), 24=1078(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2400/0, 3-4=-4036/0, 4-5=-5112/0, 5-6=-5311/0, 6-7=-5097/0, 7-9=-4005/0,
              9-10=-2353/0
BOT CHORD   23-24=0/1454, 21-23=0/3351, 19-21=0/4728, 18-19=0/5311, 17-18=0/5311, 16-17=0/5311,
              15-16=0/4704, 13-15=0/3313, 12-13=0/1398
WEBS   5-18=-326/302, 6-17=-316/311, 2-24=-1770/0, 2-23=0/1232, 3-23=-1238/0, 3-21=0/869,
              4-21=-879/0, 4-19=0/574, 10-12=-1723/0, 10-13=0/1243, 9-13=-1250/0, 9-15=0/880,
              7-15=-888/0, 7-16=0/581, 6-16=-679/176, 5-19=-665/190

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
3) The Fabrication Tolerance at joint 20 = 4%
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

NORTH CAROLINA PROFESSIONAL
SEAL
036322
ERIC A. GILBERT
ENGINEER

April 9,2020

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282436
P20-04004	F30	Floor	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:08 2020 Page 1
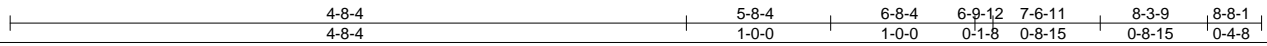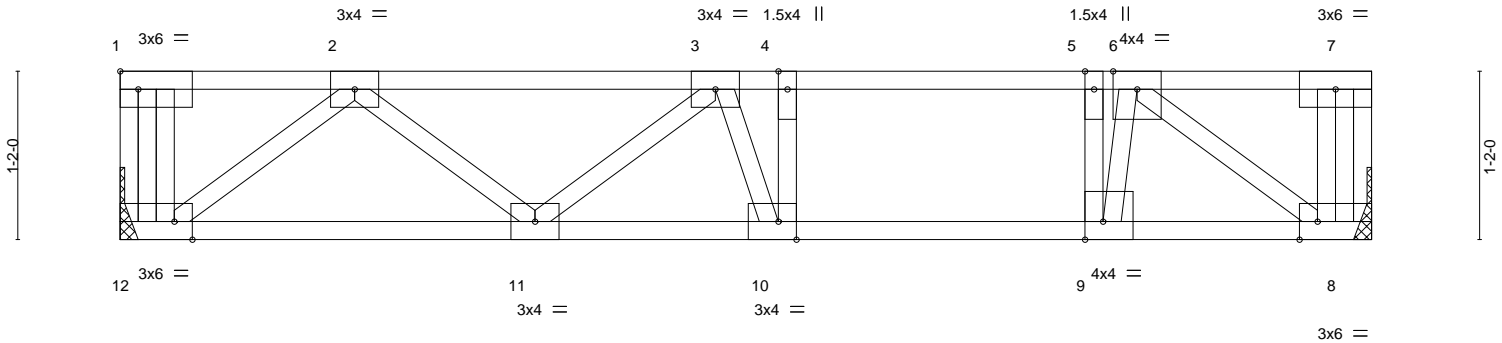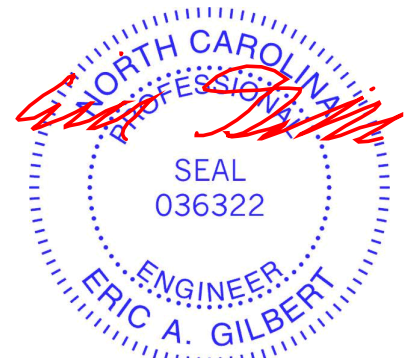ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-VzW7oaXl9__ASj30FPWaNTOwd3tZDzEG84tr39zSR31

1-3-0   0-5-4   2-0-0   0-2-13

Scale: 3/4"=1'

4-8-4   5-8-4   6-8-4   6-9-12   7-6-11   8-3-9   8-8-1
4-8-4   1-0-0   1-0-0   0-1-8   0-8-15   0-8-15   0-4-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	-0.07	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.44	Vert(CT)	-0.10	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01	8	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 49 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   12=Mechanical, 8=Mechanical
          Max Grav 12=463(LC 1), 8=463(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-805/0, 3-4=-823/0, 4-5=-808/0, 5-6=-771/0
BOT CHORD   11-12=0/586, 10-11=0/943, 9-10=0/808, 8-9=0/614
WEBS   4-10=-46/261, 5-9=-718/0, 2-12=-713/0, 2-11=0/285, 6-8=-746/0, 3-10=-367/34,
              6-9=0/845

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282437
P20-04004	F31	Floor	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:09 2020 Page 1
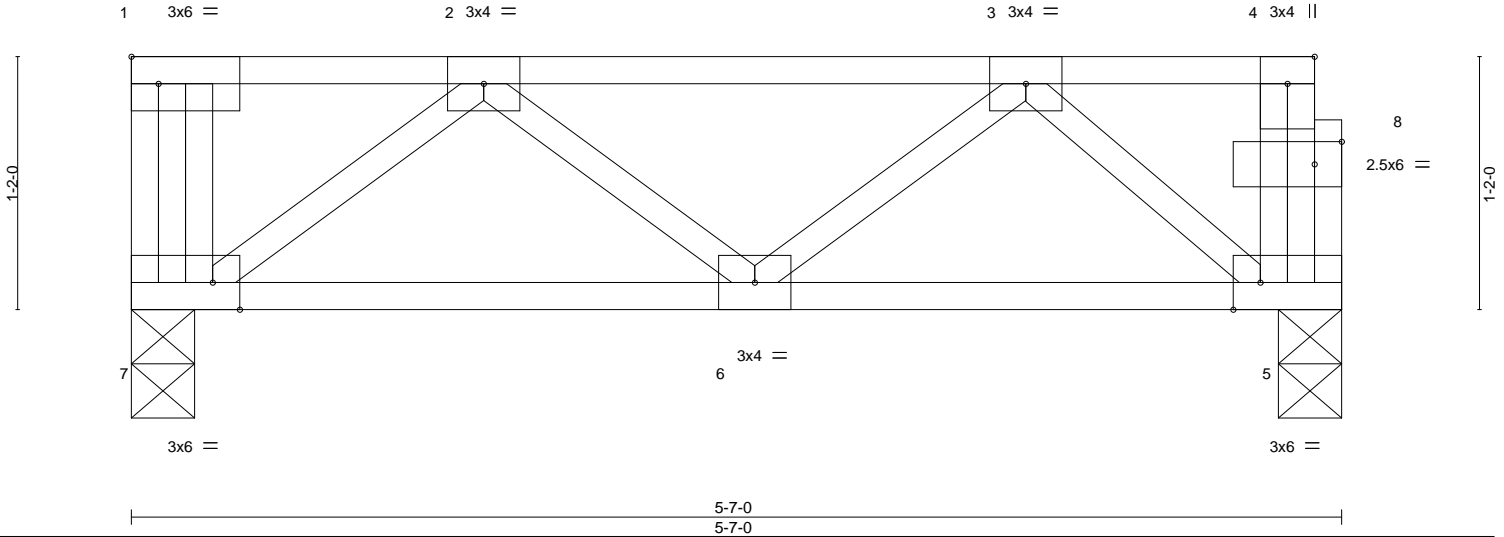ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-z94V?wYNwl603seCp61pwhxEiTIEyVFPNkcPbbzSR30

1-3-0   1-1-0   0-1-8

Scale = 1:10.6

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.18	Vert(LL)	-0.00	6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.09	Vert(CT)	-0.01	6-7	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-P							Weight: 33 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

BRACING-
TOP CHORD   Sheathed or 5-7-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   7=0-3-8, 5=0-3-8
            Max Grav 7=290(LC 1), 5=284(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-338/0
BOT CHORD   6-7=0/335, 5-6=0/303
WEBS   2-7=-408/0, 3-5=-390/0

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) Plates checked for a plus or minus 0 degree rotation about its center.
3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
						E14282438
P20-04004	F32	Floor Girder	1	1		
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc.   Thu Apr 9 13:43:09 2020   Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-z94V?wYNwI603seCp61pwhxFWTIcyUVPNkcPbbzSR30

3x6 ‖   3x6 ‖   5x5 ═

1-3-0

0-7-8

1   2   3

THAC422   Scale = 1:8.6

1-2-0   1-2-0

0-1-8

6   5   4

5x5 ═

3x6 ‖

3x6 ‖

	2-9-0	3-7-8
	2-9-0	0-10-8
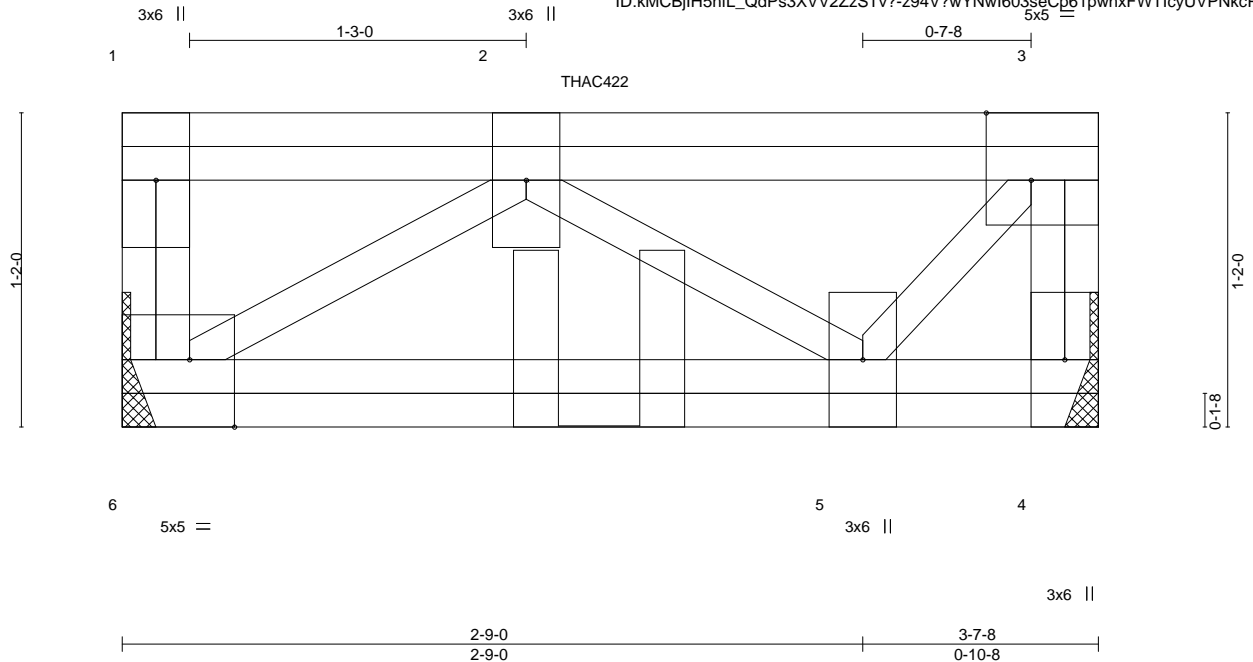
Plate Offsets (X,Y)--   [3:0-2-0,Edge], [6:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	-0.00	5	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.07	Vert(CT)	-0.00	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-P							Weight: 31 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
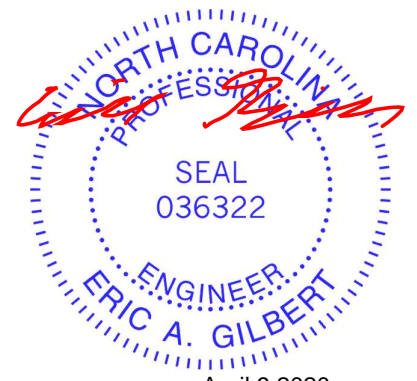BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)

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

REACTIONS.   (size)   6=Mechanical, 4=Mechanical
             Max Grav 6=401(LC 1), 4=334(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-4=-324/0
BOT CHORD   5-6=0/499
WEBS   2-6=-600/0, 2-5=-381/0, 3-5=0/304

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) Plates checked for a plus or minus 0 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) Use Simpson Strong-Tie THAC422 (6-16d Girder, 6-16d Truss) or equivalent at 1-9-4 from the left end to connect truss(es) to back
   face of top chord.
7) Fill all nail holes where hanger is in contact with lumber.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)   Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
       Vert: 4-6=-10, 1-3=-100
   Concentrated Loads (lb)
       Vert: 2=-363(B)

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
						E14282439
P20-04004	F33	GABLE	1	1		
					Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:10 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-RMetDGY?hbEth0DPMpY2TuTRMtfmhzWYcOMy81zSR3?

0-1-8

Scale: 1/2"=1'
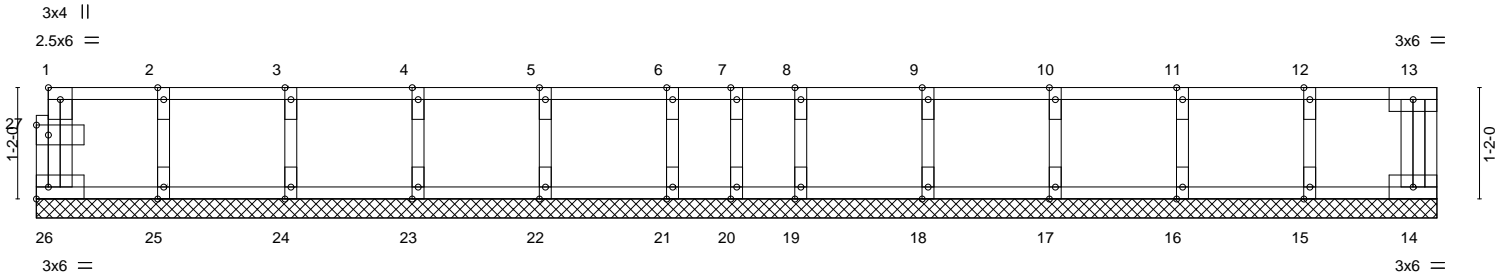
	1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	7-4-1	8-0-2	9-4-2	10-8-2	12-0-2	13-4-2	14-8-2
	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-8-1	0-8-1	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0

Plate Offsets (X,Y)--   [1:Edge,0-1-8], [27:0-1-8,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	14	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 66 lb	FT = 8%F, 4%E

LUMBER-
TOP CHORD   2x4 SP No.1(flat)
BOT CHORD   2x4 SP No.1(flat)
WEBS   2x4 SP No.3(flat)
OTHERS   2x4 SP No.3(flat)

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

REACTIONS.   All bearings 14-8-2.
    (lb) - Max Grav   All reactions 250 lb or less at joint(s) 26, 14, 20, 15, 16, 17, 18, 19, 25, 24, 23, 22, 21

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

NOTES-
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is
   the responsibility of the fabricator to increase plate sizes to account for these factors.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
   Strongbacks to be attached to walls at their outer ends or restrained by other means.
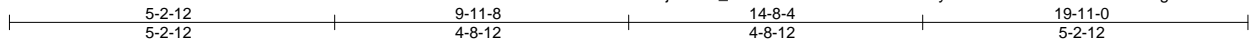9) CAUTION, Do not erect truss backwards.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:12 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-NkmedyaGDDVbwKMnUEbWYJZhUg9F9h7r3ir3BwzSR2z

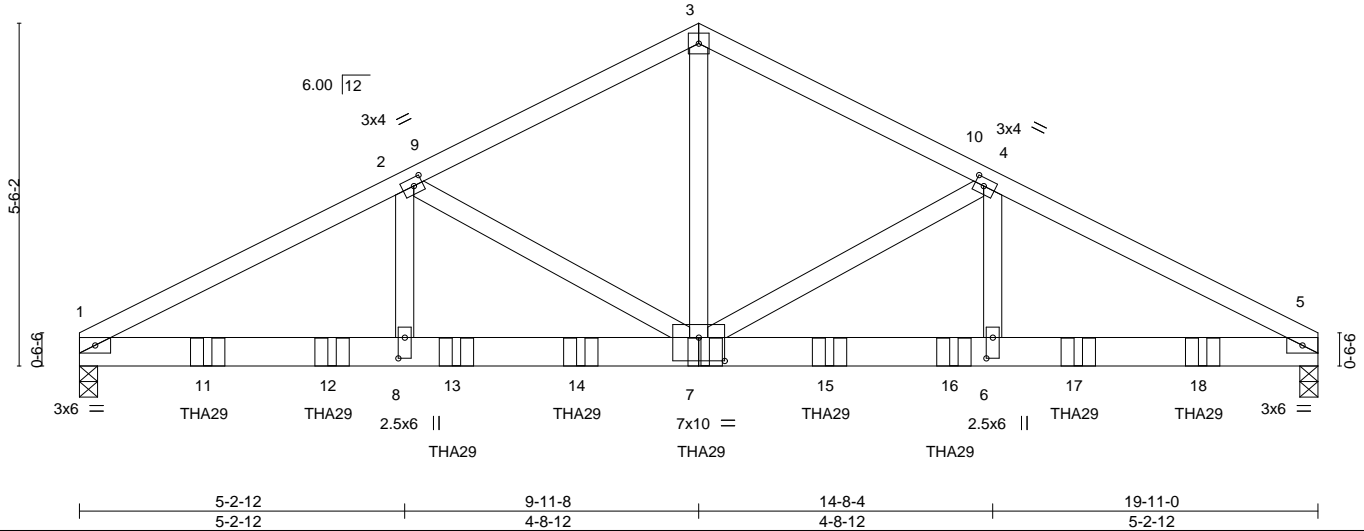Plate Offsets (X,Y)--   [2:0-1-12,0-1-8], [4:0-1-12,0-1-8], [6:0-4-0,0-1-4], [7:0-5-0,0-4-8], [8:0-4-0,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.09	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.17	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.05	5	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 328 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   (size)   1=0-3-8, 5=0-3-8
             Max Horz 1=88(LC 36)
             Max Grav 1=5555(LC 3), 5=5648(LC 3)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-9811/0, 2-3=-6747/0, 3-4=-6748/0, 4-5=-9803/0
BOT CHORD   1-8=0/8592, 7-8=0/8592, 6-7=0/8586, 5-6=0/8586
WEBS   3-7=0/5740, 4-7=-3018/0, 4-6=0/2911, 2-7=-3025/0, 2-8=0/2920

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 0-7-0 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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat.
   II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60
   plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate
   DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.
10) Use Simpson Strong-Tie THA29 (10-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left
    end to 18-0-12 to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

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

April 9,2020

Continued on page 2

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	G01	Common Girder	1	**3**		E14282440
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:13 2020 Page 2
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-sxK0rIbu_WdSYUx_2y6l4X5sE4UUu8N?IMacjMzSR2y

LOAD CASE(S) Standard
    Uniform Loads (plf)
        Vert: 1-3=-43, 3-5=-43, 1-5=-20
    Concentrated Loads (lb)
        Vert: 7=-800(B) 11=-800(B) 12=-800(B) 13=-800(B) 14=-800(B) 15=-800(B) 16=-800(B) 17=-800(B) 18=-800(B)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	M01	Monopitch Supported Gable	1	1		E14282441
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:13 2020 Page 1
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Scale = 1:17.9

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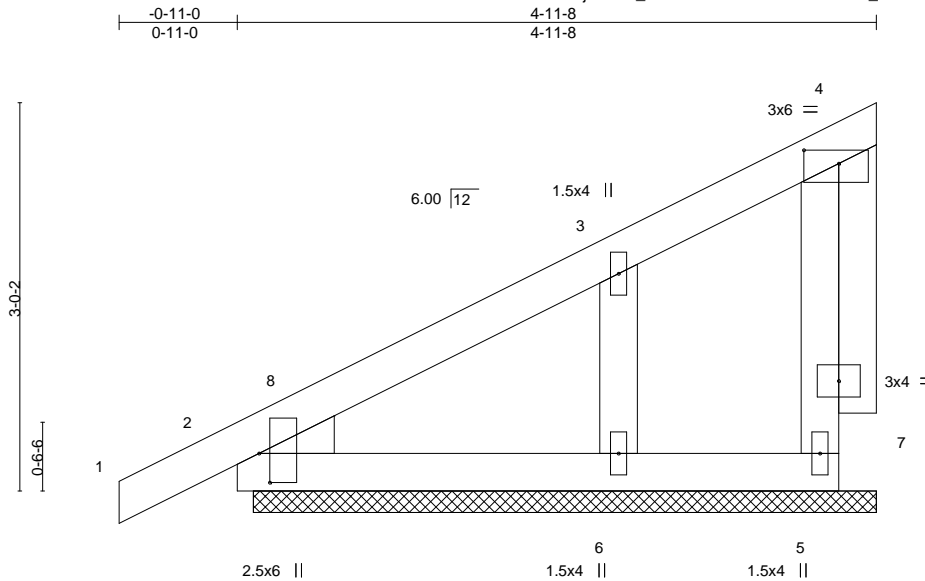
Plate Offsets (X,Y)--   [2:0-2-11,0-1-0], [2:0-1-0,0-6-11], [2:0-0-8,0-1-0], [4:0-3-4,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P								
BCDL	10.0										Weight: 26 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3
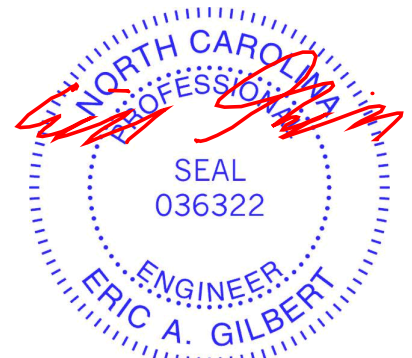WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD   Sheathed or 4-11-8 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.   (size)   5=4-10-0, 2=4-10-0, 6=4-10-0
                  Max Horz 2=80(LC 9)
                  Max Uplift 5=-11(LC 9), 2=-17(LC 12), 6=-15(LC 12)
                  Max Grav 5=36(LC 17), 2=162(LC 2), 6=257(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 5, 17 lb uplift at joint 2 and 15 lb uplift at joint 6.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	M02	Monopitch	4	1	Job Reference (optional)	E14282442

Longleaf Truss Company,　　West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:14 2020 Page 1
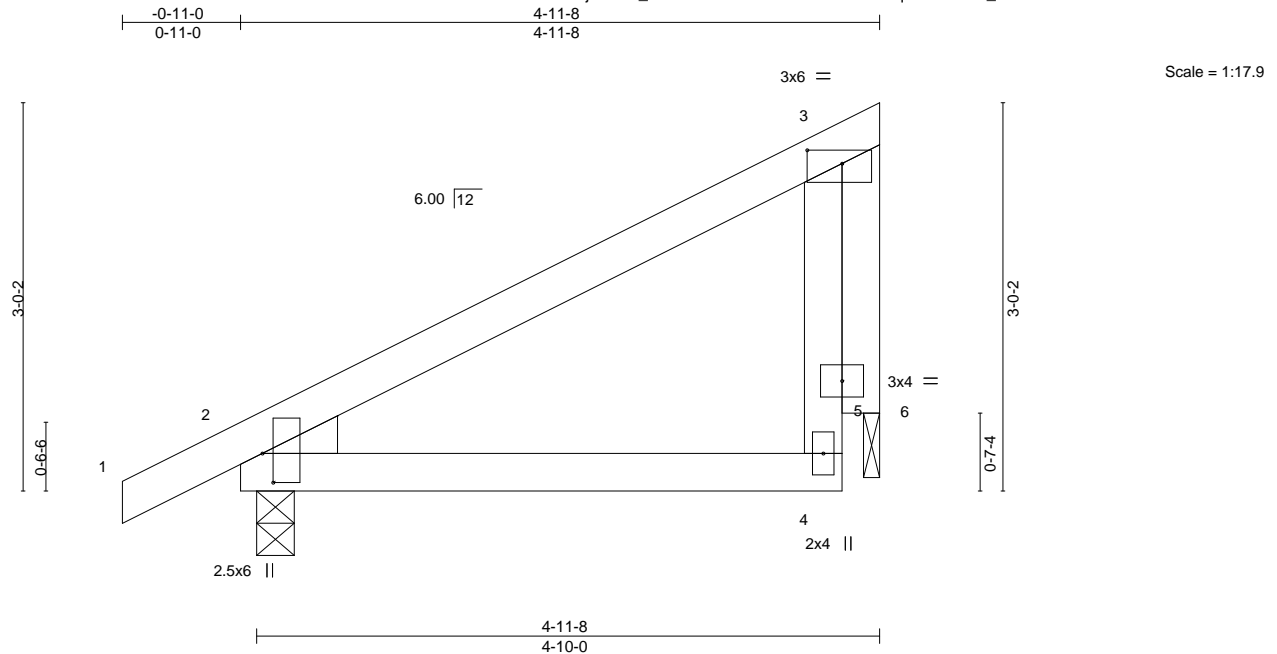ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-K7uO2ecWlqlJAeWAbfd_dke4PU?8dkH8X?KAGozSR2x

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.01	2-4	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	2-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	-0.00	6	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-R							Weight: 24 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD   Sheathed or 4-11-8 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   2=0-3-8, 6=0-1-8
Max Horz 2=59(LC 12)
Max Uplift 2=-14(LC 12), 6=-12(LC 12)
Max Grav 2=260(LC 2), 6=172(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 2 and 12 lb uplift at joint 6.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 9,2020

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

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:15 2020 Page 1
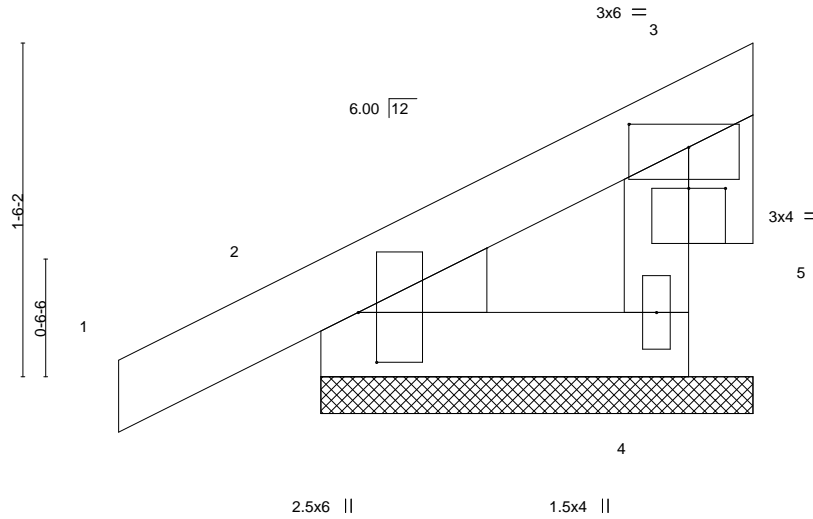ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-oJRmG_c8W8tAnn5M9N8DAyBIOuMnMEEIlf3joFzSR2w

Scale = 1:10.4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							Weight: 10 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3
WEDGE
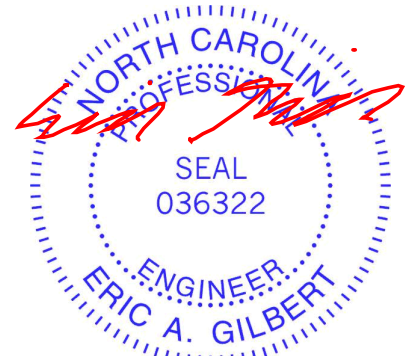Left: 2x4 SP No.3

BRACING-
TOP CHORD   Sheathed or 1-11-8 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.   (size)   4=1-11-8, 2=1-11-8
             Max Horz 2=35(LC 9)
             Max Uplift 4=-8(LC 9), 2=-29(LC 12)
             Max Grav 4=57(LC 24), 2=133(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 4 and 29 lb uplift at joint 2.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 9,2020

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:16 2020 Page 1
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Scale = 1:10.4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	2	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	2	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-R							Weight: 10 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3
WEDGE
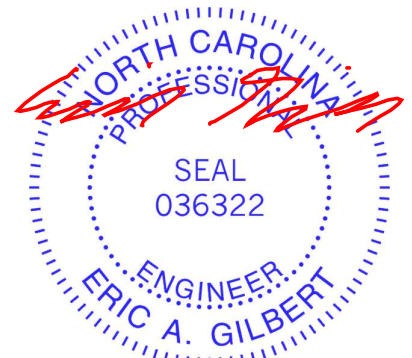Left: 2x4 SP No.3

BRACING-
TOP CHORD   Sheathed or 1-11-8 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   2=0-3-8, 6=0-1-8
           Max Horz 2=26(LC 9)
           Max Uplift 2=-25(LC 12), 6=-1(LC 9)
           Max Grav 2=144(LC 17), 6=34(LC 24)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 2 and 1 lb uplift at joint 6.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

SEAL
036322

NORTH CAROLINA
PROFESSIONAL ENGINEER
ERIC A. GILBERT

April 9,2020

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282445
P20-04004	T01	Common	2	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:18 2020 Page 1
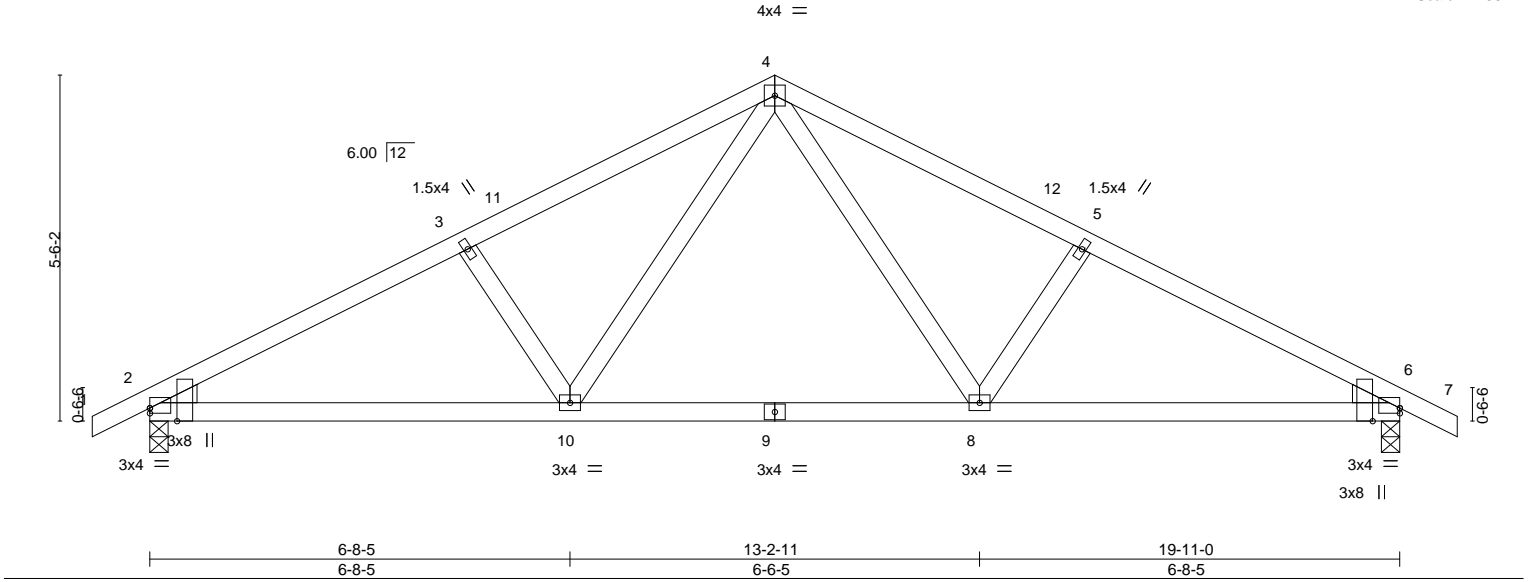ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-Cu7vu?f0p3FleFqxqViwnapmU5JHZZGkRdINPZzSR2t

Scale = 1:36.7

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.05	6-8	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.11	6-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 94 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD   Sheathed or 5-3-8 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size) 2=0-3-8, 6=0-3-8
Max Horz 2=94(LC 11)
Max Uplift 2=-26(LC 12), 6=-26(LC 12)
Max Grav 2=849(LC 2), 6=849(LC 2)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1302/29, 3-4=-1142/49, 4-5=-1142/49, 5-6=-1302/29
BOT CHORD   2-10=0/1083, 8-10=0/741, 6-8=0/1083
WEBS   4-8=0/422, 5-8=-255/85, 4-10=0/422, 3-10=-255/85

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2 and 26 lb uplift at joint 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

SEAL 036322 — NORTH CAROLINA PROFESSIONAL ENGINEER — ERIC A. GILBERT

April 9,2020

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
						E14282446
P20-04004	T01GE	Common Supported Gable	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:19 2020 Page 1
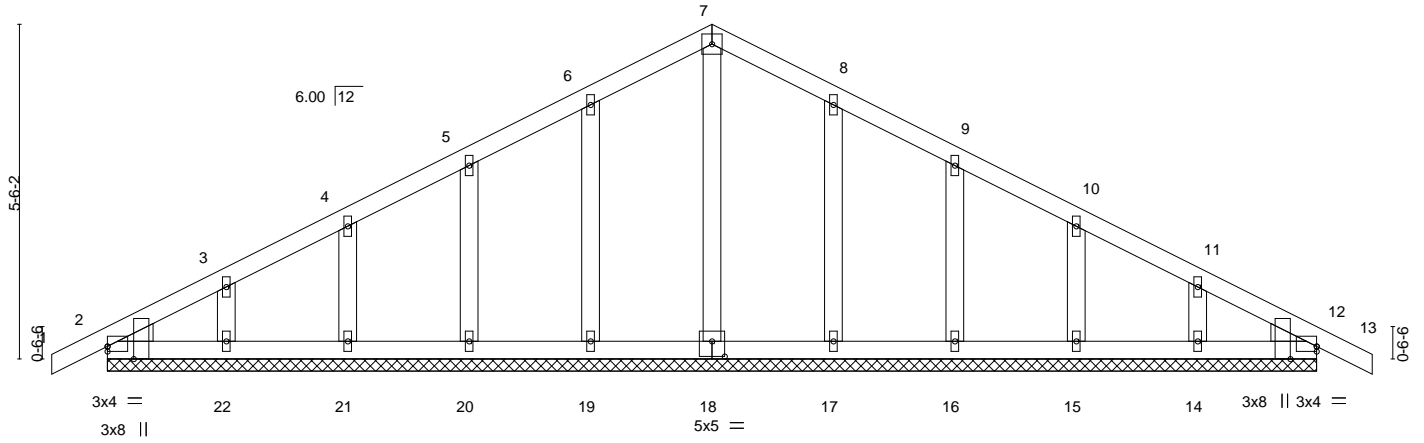ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-g4hH5LffaMNcGPP7OCD9KoLzNVkeI2NtgH1xx0zSR2s
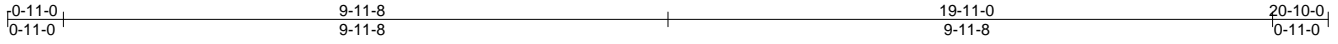
Scale = 1:37.9

Plate Offsets (X,Y)--   [2:Edge,0-1-0], [2:0-2-8,Edge], [12:0-2-8,Edge], [12:Edge,0-1-0], [18:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	13	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S								
BCDL	10.0										Weight: 105 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

REACTIONS.   All bearings 19-11-0.
          (lb) - Max Horz 2=-94(LC 10)
               Max Uplift   All uplift 100 lb or less at joint(s) 2, 19, 20, 21, 22, 17, 16, 15, 14, 12
               Max Grav   All reactions 250 lb or less at joint(s) 2, 18, 19, 20, 21, 22, 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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 19, 20, 21, 22, 17, 16, 15, 14, 12.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

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

Scale = 1:46.3

| -0-11-0 | 6-6-12 | 12-11-8 | 19-4-4 | 25-11-0 | 26-10-0 |
| 0-11-0 | 6-6-12 | 6-4-12 | 6-4-12 | 6-6-12 | 0-11-0 |

4x4 =
6.00 |12
1.5x4 \\
1.5x4 //
3x4 =   3x4 =   3x4 =   3x4 =   3x4 =
3x8 || 3x8 ||

7-0-2
0-6-9
0-6-6

| 8-8-5 | 17-2-11 | 25-11-0 |
| 8-8-5 | 8-6-5 | 8-8-5 |

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.16	8-10	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.29	6-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.05	6	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S								
BCDL	10.0										Weight: 121 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD   Sheathed or 4-1-9 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

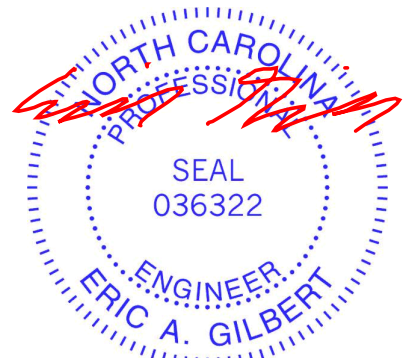REACTIONS.   (size) 2=0-3-8, 6=0-3-8
                Max Horz 2=122(LC 11)
                Max Uplift 2=-26(LC 12), 6=-26(LC 12)
                Max Grav 2=1207(LC 24), 6=1207(LC 25)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1895/40, 3-4=-1730/65, 4-5=-1730/65, 5-6=-1895/40
BOT CHORD   2-10=0/1705, 8-10=0/1126, 6-8=0/1614
WEBS   4-8=0/749, 5-8=-354/112, 4-10=0/749, 3-10=-354/112

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=26ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282448
P20-04004	T02GE	Common Supported Gable	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:22 2020 Page 1
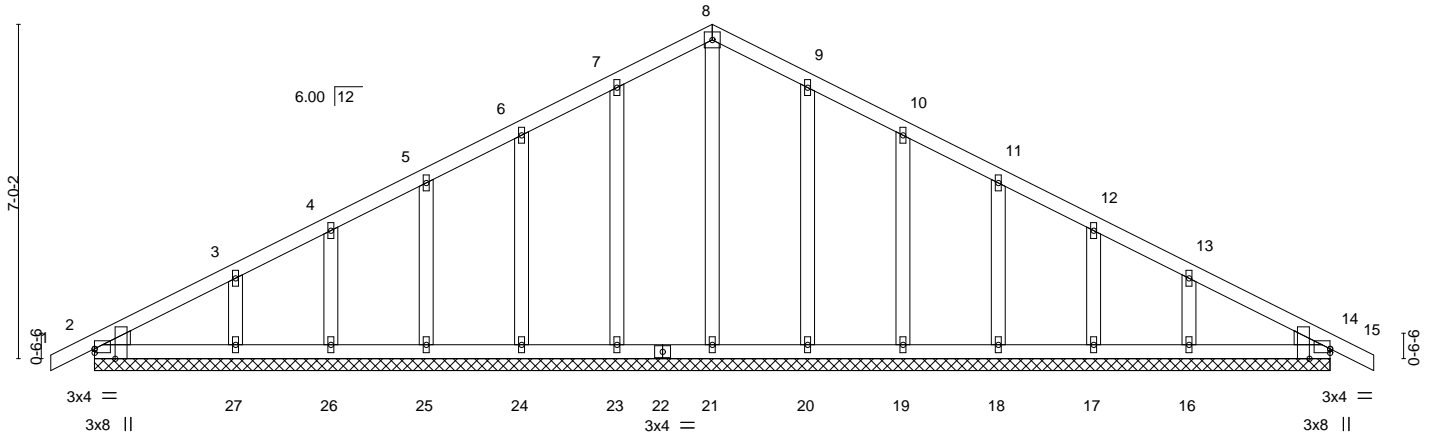ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-5fMQkNiXsHlA7s7i3LmsyQzUJil_VOVJMFGbYLzSR2p

Scale: 1/4"=1'

Plate Offsets (X,Y)-- [2:Edge,0-1-0], [2:0-2-8,Edge], [14:0-0-0,0-1-0], [14:0-2-8,Edge]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	14	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	15	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S								
BCDL	10.0										Weight: 148 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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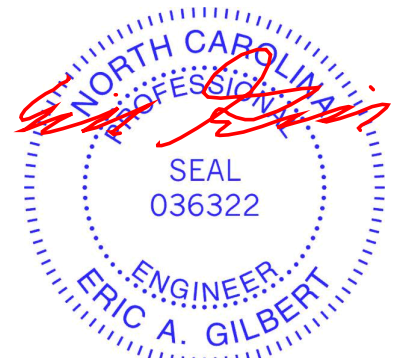BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   All bearings 25-11-0.
   (lb) - Max Horz 2=-122(LC 10)
         Max Uplift   All uplift 100 lb or less at joint(s) 2, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14
         Max Grav   All reactions 250 lb or less at joint(s) 2, 21, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=26ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 9,2020

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	T03	Common	1	1		E14282449
					Job Reference (optional)	

Longleaf Truss Company,　　West End, NC - 27376,
8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:24 2020 Page 1
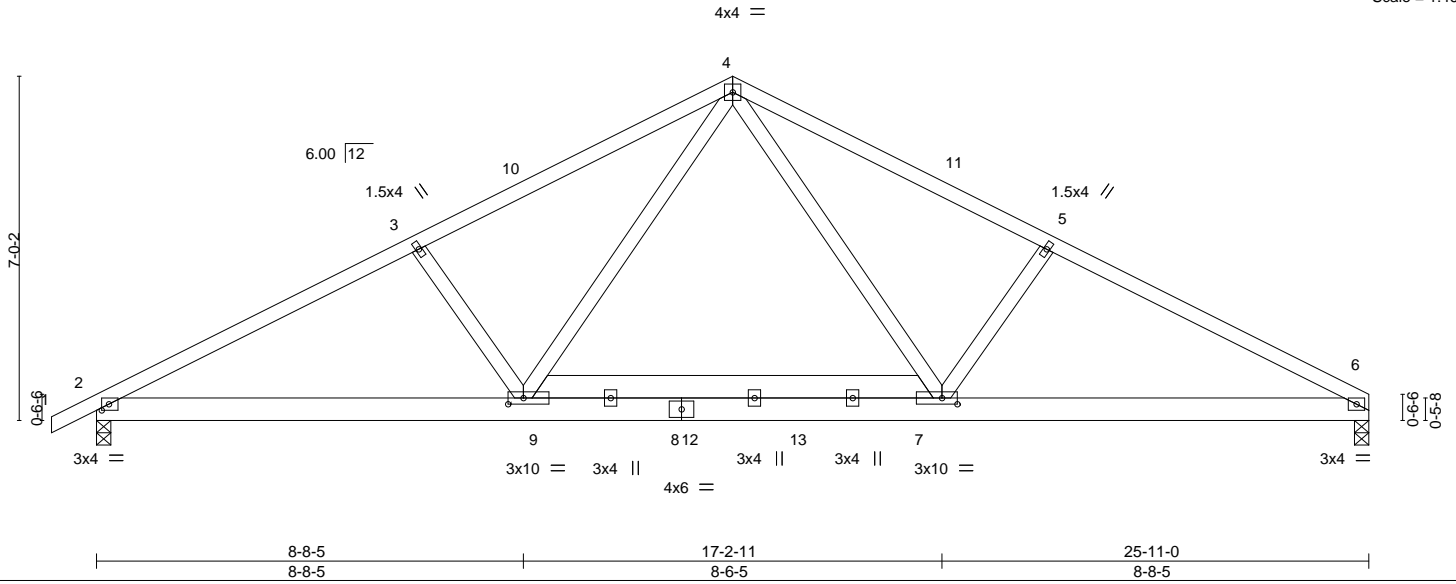ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-12UA93jnOv?uMAH5BmpK1r3k0WLlzEocqZlhcDzSR2n

-0-11-0	6-6-12	12-11-8		19-4-4	25-11-0	
0-11-0	6-6-12	6-4-12		6-4-12	6-6-12	

Scale = 1:46.9

8-8-5	17-2-11	25-11-0
8-8-5	8-6-5	8-8-5

Plate Offsets (X,Y)--　　[2:0-1-12,0-1-8], [7:0-3-12,0-1-8], [9:0-3-12,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.08	2-9	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.15	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S								
BCDL	10.0										Weight: 158 lb	FT = 20%

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

BRACING-
TOP CHORD　　Sheathed or 4-0-11 oc purlins.
BOT CHORD　　Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.　　(size)　6=0-3-8, 2=0-3-8
　　　　　　　　Max Horz　2=120(LC 11)
　　　　　　　　Max Uplift　2=-26(LC 12)
　　　　　　　　Max Grav　6=1144(LC 25), 2=1203(LC 24)

FORCES.　(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD　　2-3=-2010/42, 3-4=-1793/54, 4-5=-1793/56, 5-6=-2011/45
BOT CHORD　　2-9=0/1799, 7-9=0/1179, 6-7=0/1715
WEBS　　　　　4-7=0/773, 5-7=-367/118, 4-9=0/770, 3-9=-358/113

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=26ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

SEAL
036322
ERIC A. GILBERT
NORTH CAROLINA
PROFESSIONAL
ENGINEER

April 9,2020

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

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	
P20-04004	T03GE	Common Supported Gable	1	1		E14282450
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,   8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:26 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-zRcwZkl2wWFccURUIAro6G897K6uRBVvHtEoh6zSR2l

Scale: 1/4"=1'
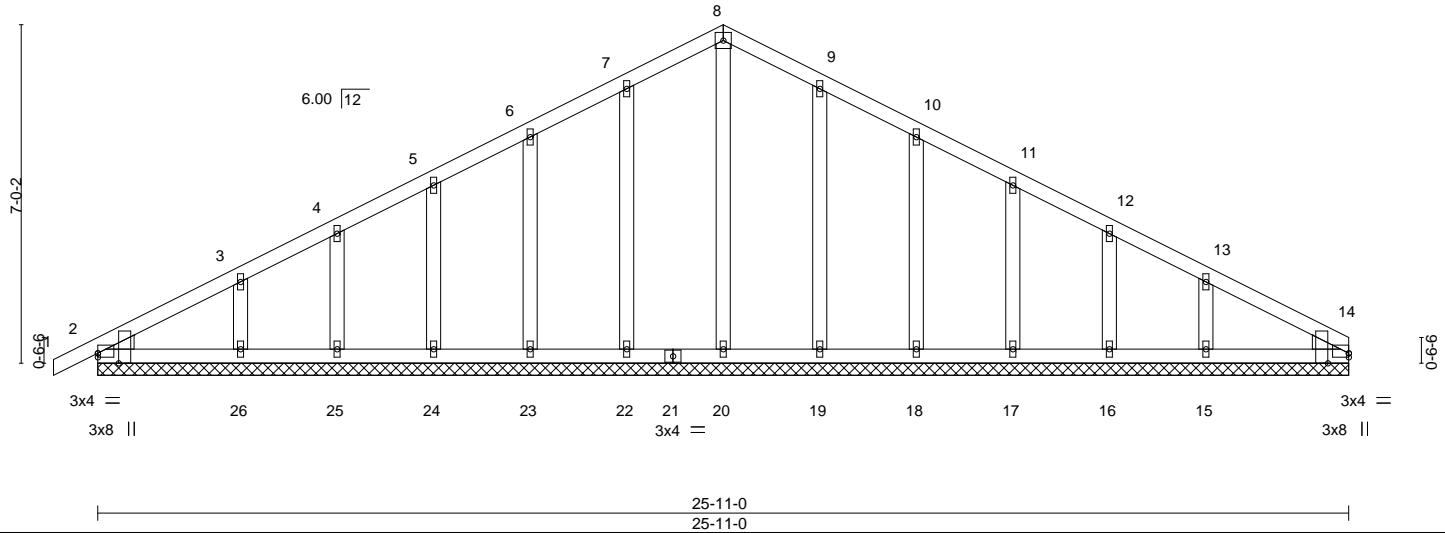
Plate Offsets (X,Y)-- [2:0-0-0,0-1-0], [2:0-2-8,Edge], [14:Edge,0-1-0], [14:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S								
BCDL	10.0										Weight: 146 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

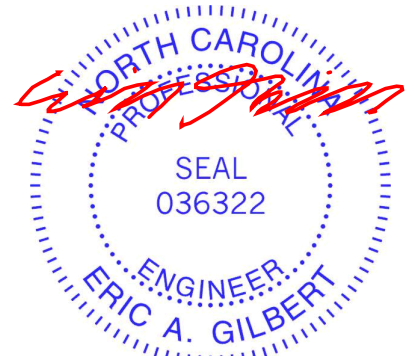REACTIONS.   All bearings 25-11-0.
        (lb) - Max Horz 2=121(LC 11)
              Max Uplift   All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 25, 26, 19, 18, 17, 16, 15
              Max Grav   All reactions 250 lb or less at joint(s) 2, 20, 22, 23, 24, 25, 26, 19, 18, 17, 16, 15, 14

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=26ft; eave=2ft; Cat.
   II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60
   plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate
   DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs
   non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
    will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 23, 24, 25,
    26, 19, 18, 17, 16, 15.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 14.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
    referenced standard ANSI/TPI 1.

NORTH CAROLINA
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SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
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A MiTek Affiliate

818 Soundside Road
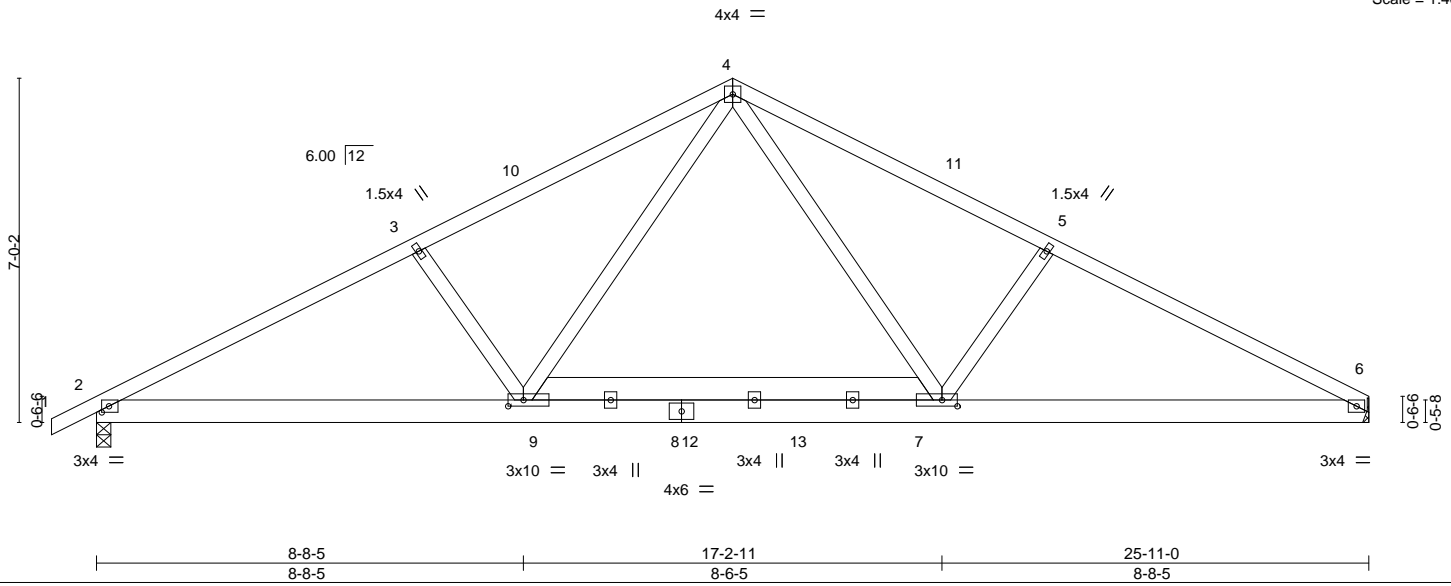Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282451
P20-04004	T04	Common	9	1	Job Reference (optional)	

Longleaf Truss Company,　　West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:27 2020 Page 1
ID:kMCBjIH5nfL_QdPs3XVV2ZzSTv?-RdAJn4mghqNTDd0gsuM1fUgF9jMKAbT3WXzMDYzSR2k

-0-11-0 | 6-6-12 | 12-11-8 | 19-4-4 | 25-11-0
0-11-0 | 6-6-12 | 6-4-12 | 6-4-12 | 6-6-12

Scale = 1:46.9

8-8-5 | 17-2-11 | 25-11-0
8-8-5 | 8-6-5 | 8-8-5

Plate Offsets (X,Y)--   [2:0-1-12,0-1-8], [7:0-3-12,0-1-8], [9:0-3-12,0-1-8]

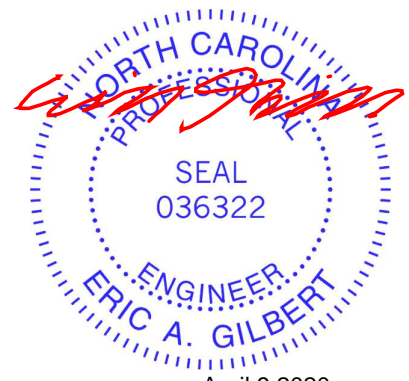| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.08	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.16	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 158 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD   Sheathed or 4-0-1 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   6=Mechanical, 2=0-3-8
              Max Horz 2=120(LC 11)
              Max Uplift 2=-26(LC 12)
              Max Grav 6=1148(LC 25), 2=1206(LC 24)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2018/42, 3-4=-1801/54, 4-5=-1811/55, 5-6=-2033/45
BOT CHORD   2-9=0/1806, 7-9=0/1187, 6-7=0/1739
WEBS   4-7=0/789, 5-7=-378/119, 4-9=0/769, 3-9=-358/113

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=26ft; eave=4ft; Cat.
   II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60
   plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate
   DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs
   non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 09-2020-020	E14282452
P20-04004	T04GE	Common Supported Gable	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.330 s Mar 23 2020 MiTek Industries, Inc. Thu Apr 9 13:43:28 2020 Page 1
ID:kMCBjlH5nfL_QdPs3XVV2ZzSTv?-vpkh_QmIS7WKrnbsQbtGBhDWw7obv6xClBjvl_zSR2j

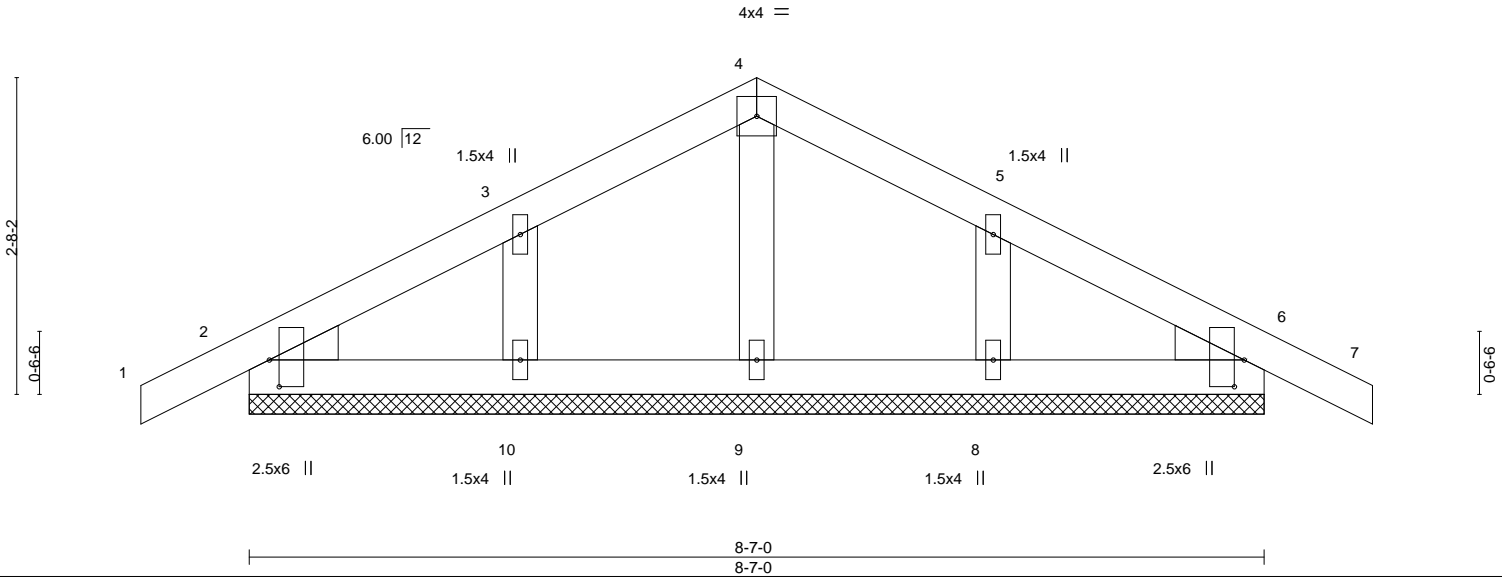| -0-11-0	4-3-8	8-7-0	9-6-0
0-11-0	4-3-8	4-3-8	0-11-0
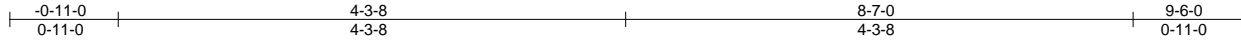
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Plate Offsets (X,Y)--   [2:0-0-8,0-1-0], [2:0-1-0,0-6-11], [2:0-2-11,0-1-0], [6:0-0-8,0-1-0], [6:0-1-0,0-6-11], [6:0-2-11,0-1-0]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	6	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	6	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							Weight: 39 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

REACTIONS.   All bearings 8-7-0.
        (lb) - Max Horz 2=-45(LC 10)
                Max Uplift   All uplift 100 lb or less at joint(s) 2, 6, 10, 8
                Max Grav   All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 10, 8.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

SEAL
036322

April 9,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Longleaf Truss Company,   West End, NC - 27376,

-0-11-0	4-3-8	8-7-0	9-6-0
0-11-0	4-3-8	4-3-8	0-11-0

Scale = 1:19.2

4x4 =

6.00 |12

2-8-2

0-6-6

2.5x6 ||

1.5x4 ||
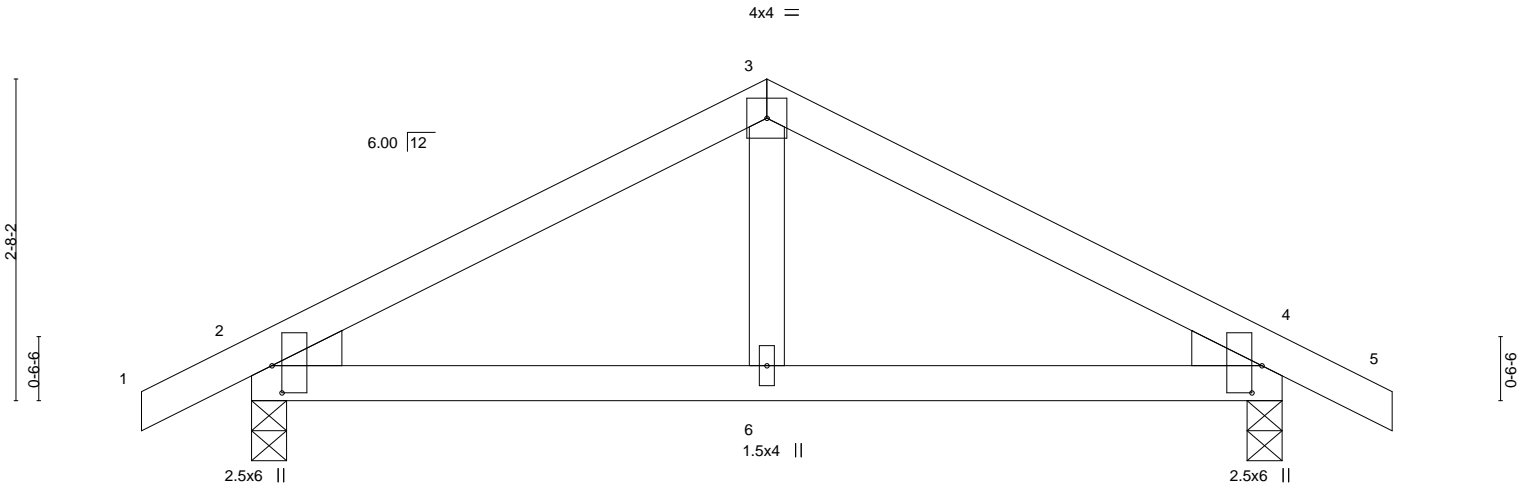
2.5x6 ||

4-3-8	8-7-0
4-3-8	4-3-8

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

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.01	4-6	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	4-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							Weight: 35 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

REACTIONS.   (size)   2=0-3-8, 4=0-3-8
          Max Horz 2=45(LC 11)
          Max Uplift 2=-26(LC 12), 4=-26(LC 12)
          Max Grav 2=395(LC 2), 4=395(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-401/0, 3-4=-401/0
BOT CHORD   2-6=0/291, 4-6=0/291

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

NORTH CAROLINA PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

April 9,2020

ENGINEERING BY
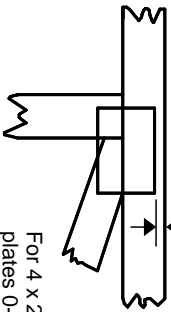TRENCO
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818 Soundside Road
Edenton, NC 27932

Symbols

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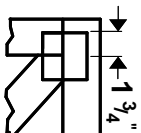
Center plate on joint unless x, y offsets are indicated.
Dimensions are in ft-in-sixteenths.
Apply plates to both sides of truss and fully embed teeth.

1 ¾"

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.
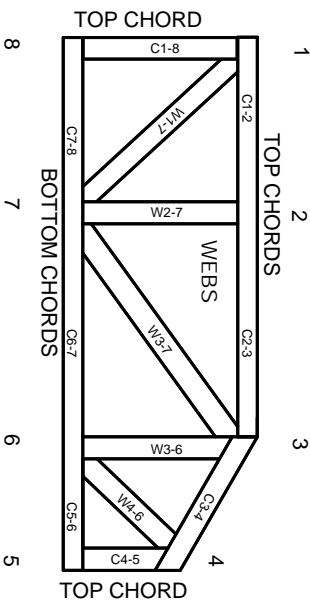
BEARING

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.

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

Numbering System

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

TOP CHORDS

WEBS

BOTTOM CHORDS

TOP CHORD

C1-8, C1-2, W1-7, W2-7, C2-3, W3-7, C6-7, W3-6, C2-4, W4-6, C5-6, C4-5, C7-8

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.