ENGINEERING BY
TRENCO
A MiTek Affiliate

TAYLOR CONSTRUCTION
SFD1909 - 0021
PATTERSON JOB

RE: P19-10021 - PATTERSON

Trenco
818 Soundside Rd
Edenton, NC 27932

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):

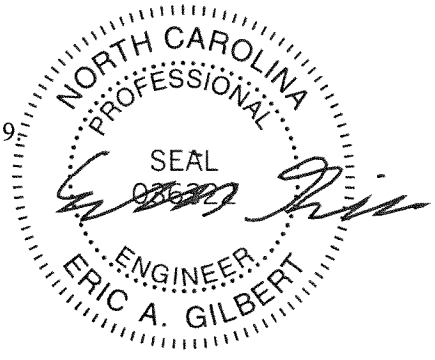
Design Code: IRC2018/TPI2014
Design Program: MiTek 20/20 8.3
Wind Code: N/A Wind Speed: 130 mph
Design Method: User defined
Roof Load: 40.0 psf
Floor Load: 55.0 psf

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

No.	Seal#	Truss Name	Date
1		F01	12/10/19
2	E13847281	F02	12/10/19
3	E13847282	F03	12/10/19
4	E13847283	F04	12/10/19
5	E13847284	F05	12/10/19
6	E13847285	F06	12/10/19
7	E13847286	F07	12/10/19
8	E13847287	PB01	12/10/19
9	E13847288	PB02	12/10/19
10	E13847289	T01	12/10/19
11	E13847290	T01GE	12/10/19
12	E13847291	T02	12/10/19
13	E13847292	T03	12/10/19
14	E13847293	T04	12/10/19
	E13847294	M01	12/10/19
16	E13847295	M02	12/10/19
17	E13847296	T02GE	12/10/19
18	E13847297	T05	12/10/19
19	E13847298	T06	12/10/19
20	E13847299	T07	12/10/19

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, 2019.



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.

December 10,2019

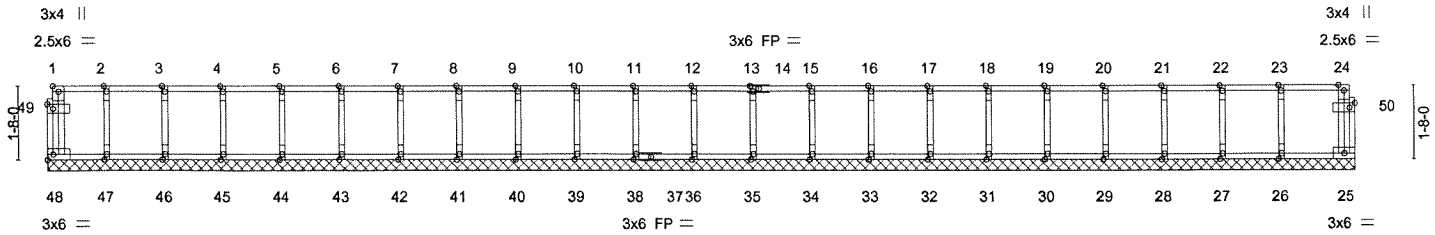
Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	F01	Floor Supported Gable	1	1	E13847280
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:22 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-17tGrKNA4ON1Pst?B06Lexg?jn?dX8IQ5MpSGzyAOfV

0-1-8 0-1-8

Scale = 1:50.0



29-8-0
29-8-0

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [49:0-1-8,0-1-4], [50:0-1-8,0-1-4]

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	25	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 144 lb	FT = 8%F, 4%E

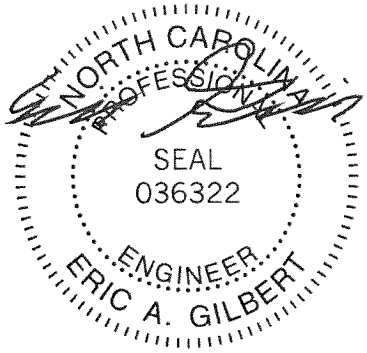
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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 29-8-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 48, 25, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26

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.



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Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	F02	Floor	4	1	E13847281
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:23 2019 Page 1
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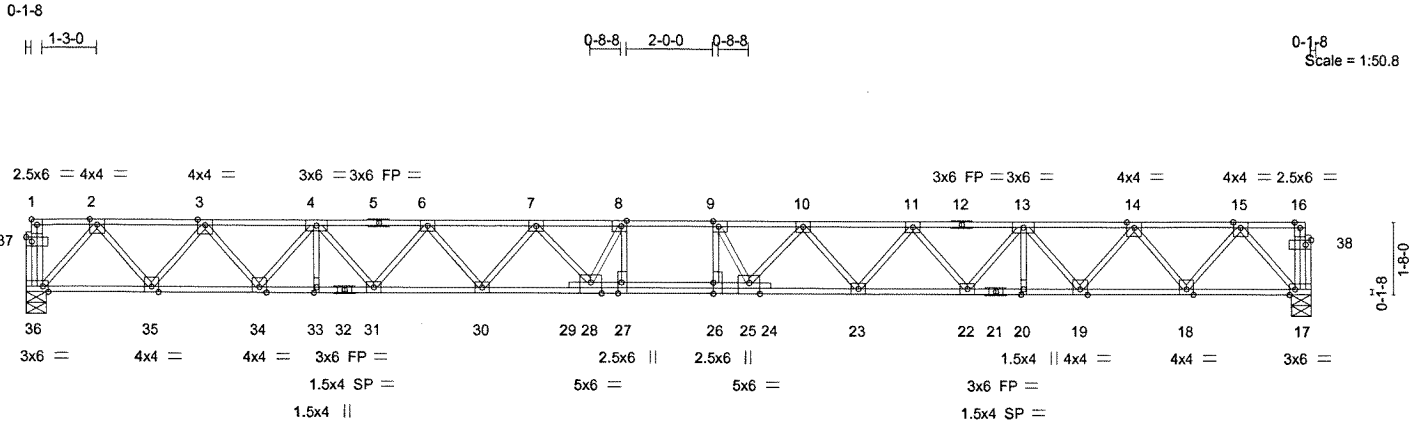


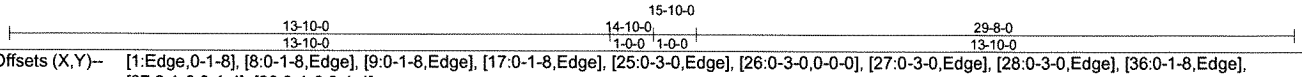


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [8:0-1-8,Edge], [9:0-1-8,Edge], [17:0-1-8,Edge], [25:0-3-0,Edge], [26:0-3-0,0-0-0], [27:0-3-0,Edge], [28:0-3-0,Edge], [36:0-1-8,Edge], [37:0-1-8,0-1-4], [38:0-1-8,0-1-4]

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.54	Vert(LL)	-0.61	26-27	>578	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.99	Vert(CT)	-0.84	26-27	>421	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.13	17	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 175 lb	FT = 8%F, 4%E

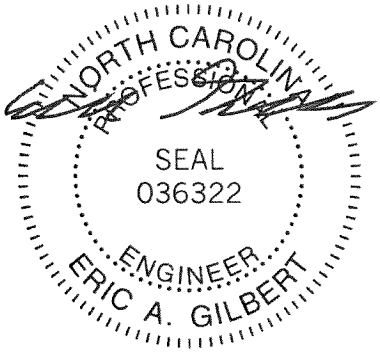
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Sheathed or 5-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 28-30,23-25.

REACTIONS. (lb/size) 17=1070/0-5-8, 36=1070/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1686/0, 3-4=-2957/0, 4-6=-3975/0, 6-7=-4625/0, 7-8=-5053/0, 8-9=-5288/0, 9-10=-5053/0, 10-11=-4625/0, 11-13=-3975/0, 13-14=-2957/0, 14-15=-1686/0
BOT CHORD 35-36=0/965, 34-35=0/2392, 33-34=0/3538, 31-33=0/3538, 30-31=0/4370, 28-30=0/4897, 27-28=0/5288, 26-27=0/5288, 25-26=0/5288, 23-25=0/4897, 22-23=0/4370, 20-22=0/3538, 19-20=0/3538, 18-19=0/2392, 17-18=0/965
WEBS 8-27=-127/556, 9-26=-127/556, 2-36=-1413/0, 2-35=0/1146, 3-35=-1121/0, 3-34=0/897, 4-34=-895/0, 4-31=0/675, 6-31=-627/0, 6-30=0/405, 7-30=-431/0, 7-28=-1/404, 8-28=-766/25, 15-17=-1413/0, 15-18=0/1146, 14-18=-1121/0, 14-19=0/897, 13-19=-895/0, 13-22=0/675, 11-22=-627/0, 11-23=0/405, 10-23=-431/0, 10-25=-1/404, 9-25=-766/25

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 32 = 4%, joint 21 = 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.



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	F03	Floor	3	1	E13847282
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:25 2019 Page 1
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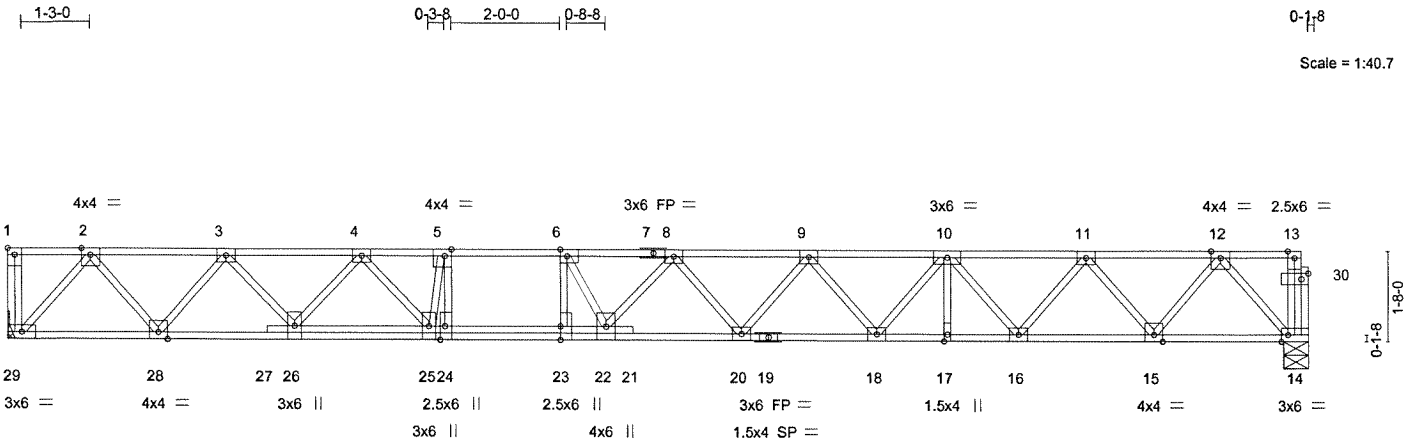


8-2-0 | 9-2-0 | 10-2-0 | 24-0-0
8-2-0 | 1-0-0 | 1-0-0 | 13-10-0

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [6:0-1-8,Edge], [14:0-1-8,Edge], [23:0-3-0,0-0-0], [24:0-3-0,Edge], [30:0-1-8,0-1-4]

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.29	22	>983	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.40	22	>715	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 146 lb	FT = 8%F, 4%E

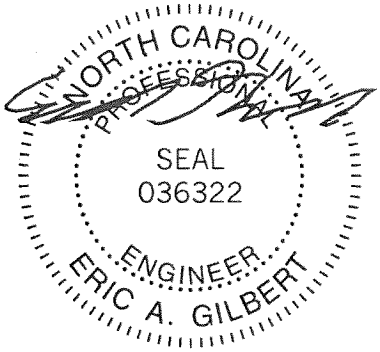
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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. (lb/size) 29=869/Mechanical, 14=864/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1298/0, 3-4=-2281/0, 4-5=-3089/0, 5-6=-3254/0, 6-8=-3324/0, 8-9=-3257/0, 9-10=-2935/0, 10-11=-2267/0, 11-12=-1329/0
BOT CHORD 28-29=0/740, 26-28=0/1854, 25-26=0/2727, 24-25=0/3229, 23-24=0/3254, 22-23=0/3254, 20-22=0/3360, 18-20=0/3164, 17-18=0/2673, 16-17=0/2673, 15-16=0/1868, 14-15=0/774
WEBS 5-24=-51/834, 6-23=-413/117, 2-29=-1112/0, 2-28=0/886, 3-28=-883/0, 3-26=0/662, 4-26=-691/0, 4-25=0/612, 5-25=-1008/0, 12-14=-1133/0, 12-15=0/882, 11-15=-857/0, 11-16=0/633, 10-16=-627/0, 10-18=0/403, 9-18=-364/0, 6-22=-236/373

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 19 = 4%
5) Plates checked for a plus or minus 0 degree rotation about its center.
6) Refer to girder(s) for truss to truss connections.
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.



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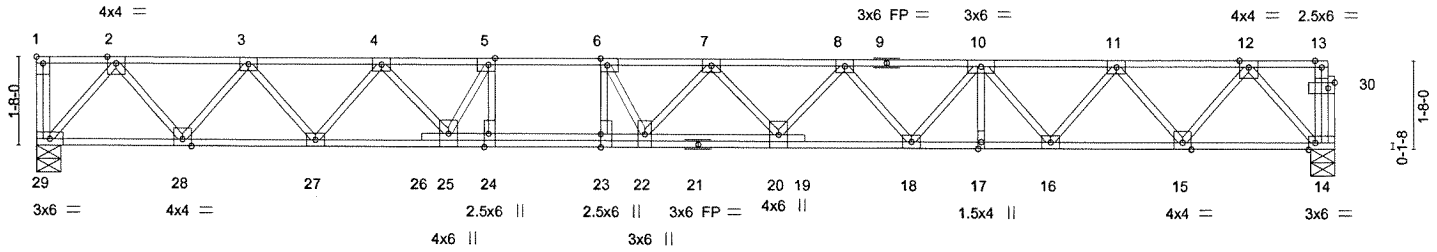
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	F04	Floor	8	1	E13847283
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:27 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-N5h9v2Rlvw0JWemy_ZiWL?NnDoXeCJH9EeXDxByAOfQ

1-3-0 | 0-9-0 | 2-0-0 | 0-8-8 | 0-1-8

Scale = 1:41.5



	8-7-8	9-7-8	10-7-8	24-5-8
	8-7-8	1-0-0	1-0-0	13-10-0

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [6:0-1-8,Edge], [14:0-1-8,Edge], [23:0-3-0,0-0-0], [24:0-3-0,Edge], [30:0-1-8,0-1-4]

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.30	20-22	>963	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.41	20-22	>700	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 148 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. (lb/size) 29=885/0-5-8, 14=881/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1332/0, 3-4=-2298/0, 4-5=-3025/0, 5-6=-3421/0, 6-7=-3602/0, 7-8=-3424/0, 8-10=-3005/0, 10-11=-2323/0, 11-12=-1358/0
BOT CHORD 28-29=0/758, 27-28=0/1887, 25-27=0/2709, 24-25=0/3421, 23-24=0/3421, 22-23=0/3421, 20-22=0/3585, 18-20=0/3279, 17-18=0/2748, 16-17=0/2748, 15-16=0/1911, 14-15=0/789
WEBS 5-24=0/664, 6-23=-616/27, 2-29=-1139/0, 2-28=0/911, 3-28=-882/0, 3-27=0/652, 4-27=-653/0, 4-25=0/533, 5-25=-920/0, 12-14=-1156/0, 12-15=0/903, 11-15=-877/0, 11-16=0/654, 10-16=-656/0, 10-18=0/396, 8-18=-436/0, 6-22=-132/601

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.

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Job	Truss	Truss Type	Qty	Ply	PATTERSON	E13847284
P19-10021	F05	Floor	26	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:29 2019 Page 1
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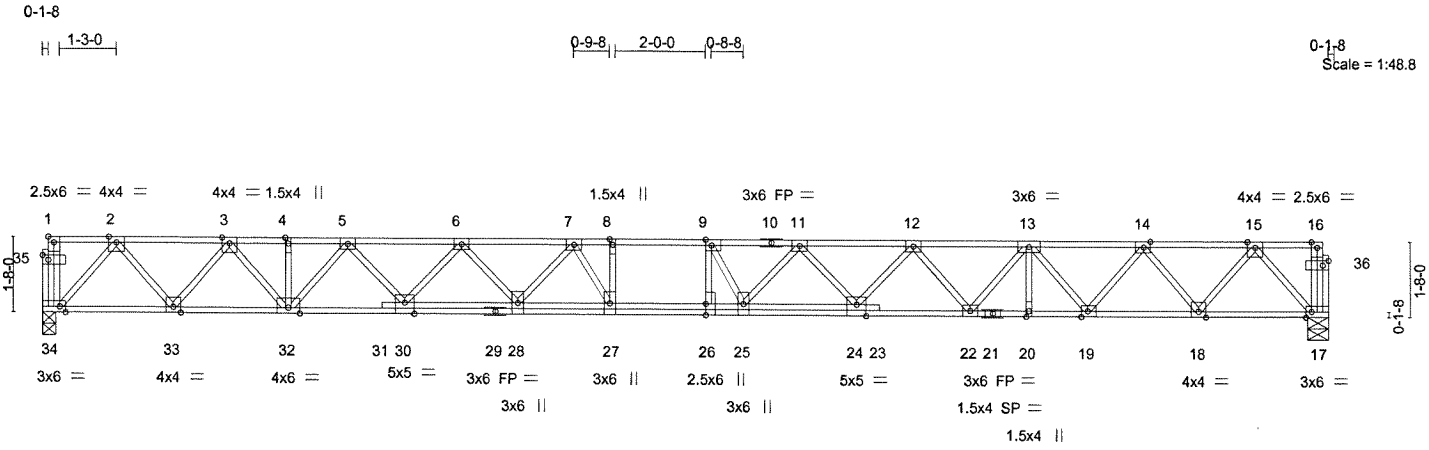


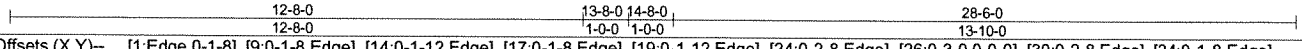


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [9:0-1-8,Edge], [14:0-1-12,Edge], [17:0-1-8,Edge], [19:0-1-12,Edge], [24:0-2-8,Edge], [26:0-3-0,0-0-0], [30:0-2-8,Edge], [34:0-1-8,Edge], [35:0-1-8,0-1-4], [36:0-1-8,0-1-4]

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.47	Vert(LL)	-0.49	26	>688	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.92	Vert(CT)	-0.67	26	>501	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.10	17	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							Weight: 178 lb	FT = 8%F, 4%E

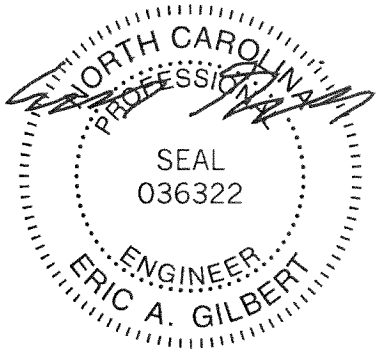
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Sheathed or 5-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 22-24.

REACTIONS. (lb/size) 34=1027/0-3-8, 17=1027/0-5-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1613/0, 3-4=-2842/0, 4-5=-2842/0, 5-6=-3815/0, 6-7=-4534/0, 7-8=-4850/0, 8-9=-4850/0, 9-11=-4868/0, 11-12=-4414/0, 12-13=-3739/0, 13-14=-2813/0, 14-15=-1612/0
BOT CHORD 33-34=0/928, 32-33=0/2274, 30-32=0/3389, 28-30=0/4251, 27-28=0/4756, 26-27=0/4850, 25-26=0/4850, 24-25=0/4708, 22-24=0/4140, 20-22=0/3363, 19-20=0/3363, 18-19=0/2283, 17-18=0/925
WEBS 9-26=-458/253, 2-34=-1359/0, 2-33=0/1087, 3-33=-1050/0, 3-32=0/876, 5-32=-844/0, 5-30=0/660, 6-30=-674/0, 6-28=0/439, 7-28=-487/0, 15-17=-1355/0, 15-18=0/1091, 14-18=-1065/0, 14-19=0/841, 13-19=-848/0, 13-22=0/581, 12-22=-637/0, 12-24=0/425, 11-24=-454/0, 11-25=0/388, 9-25=-428/421, 7-27=-156/489

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 21 = 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.



December 10,2019

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

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	F06	Floor Supported Gable	1	1	E13847285
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:30 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-ogMIX4TBCrOuN5UXfiFDzd?Nn0jaPmIbwcltYWyAOfN

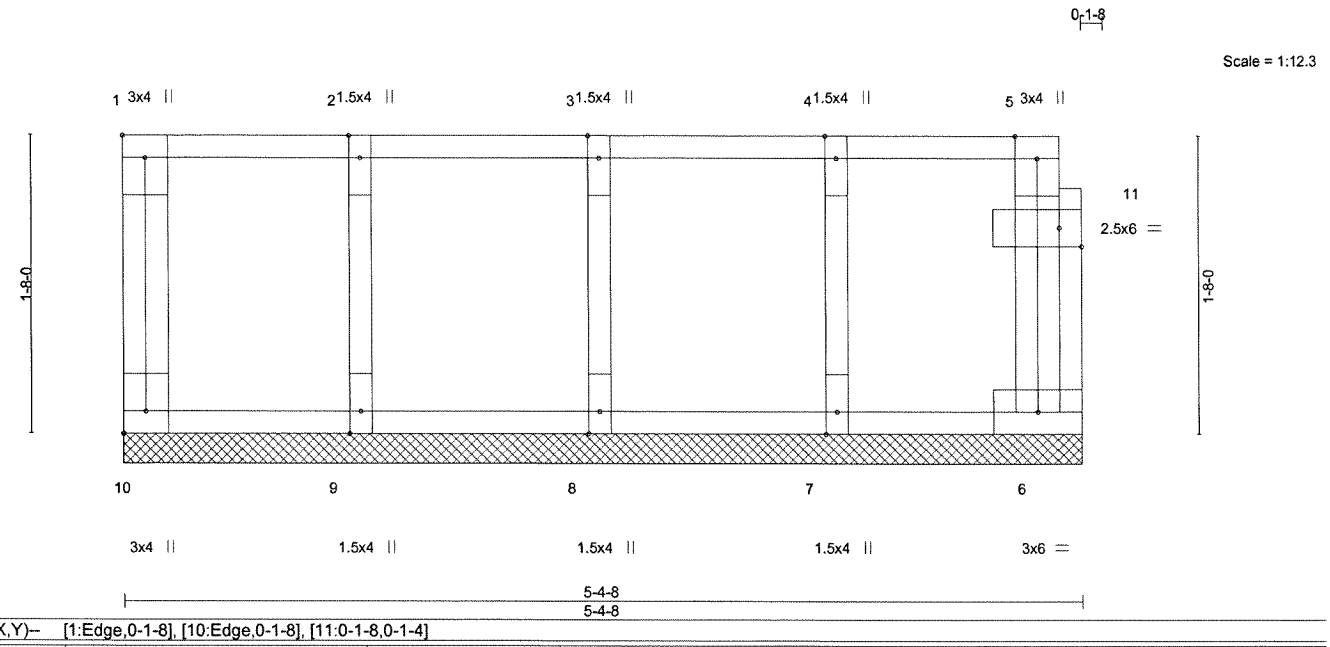


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [10:Edge,0-1-8], [11:0-1-8,0-1-4]

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	6	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 32 lb	FT = 8%F, 4%E

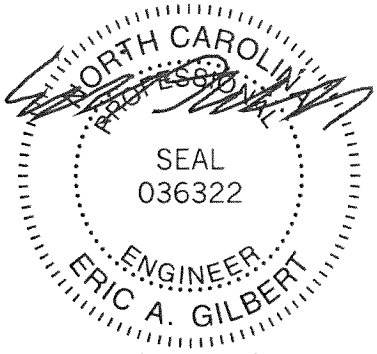
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Sheathed or 5-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 5-4-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 9, 8, 7

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) Plates checked for a plus or minus 0 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
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) 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.



December 10,2019

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

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	F07	Floor Supported Gable	1	1	E13847286
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:31 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-GswgkPUpz9WI?F3jDPmSVrYYYQ3s8DYk9GVQ4yyAOfM

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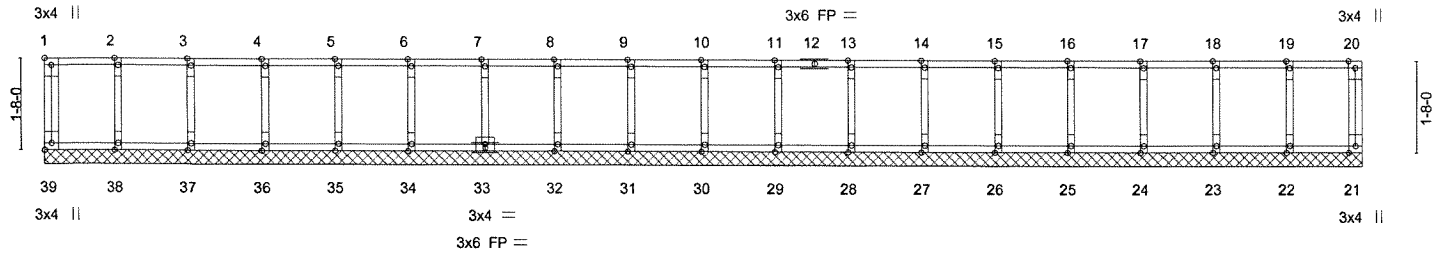


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [39:Edge,0-1-8]

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	21	n/a	n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R							Weight: 116 lb	FT = 8%F, 4%E

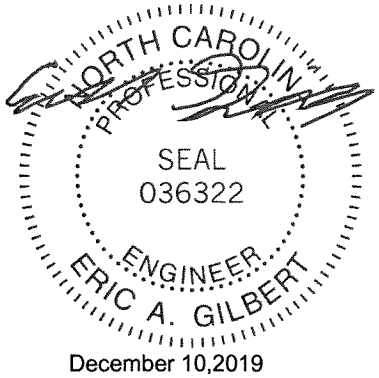
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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 24-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 39, 21, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22

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.

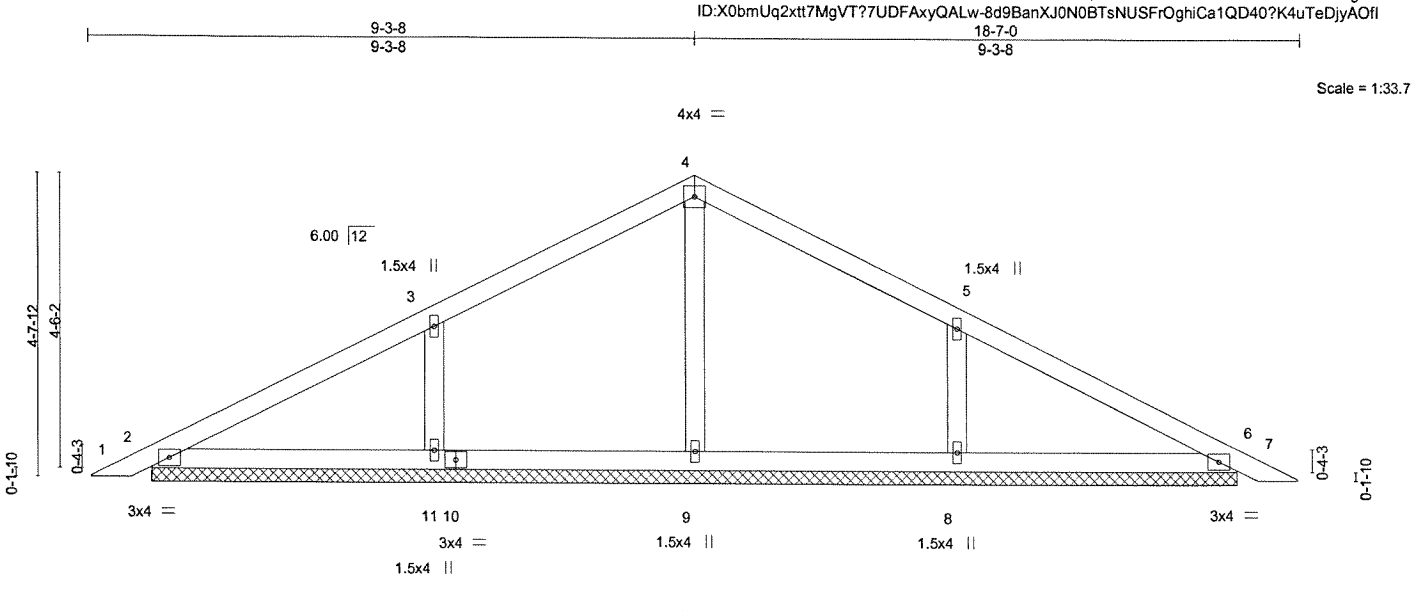


December 10,2019

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

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	PB01	Piggyback	1	1	E13847287
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:35 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-8d9BanXJ0N0BTsNUSFrOghiCa1QD40?K4uTeDjyAOfI



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	0.00	7	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.01	7	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 67 lb	FT = 20%
BCDL	10.0											

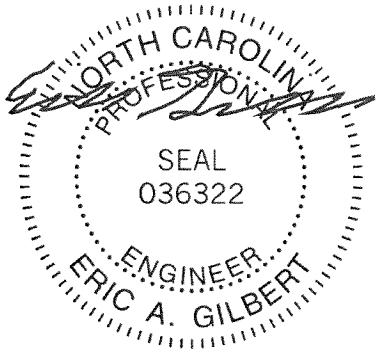
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.3

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 16-7-14.
(lb) - Max Horz 2=77(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 11, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 2, 9, 6 except 11=397(LC 30), 8=397(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-11=-293/82, 5-8=-293/82

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) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11, 8, 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.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 10,2019

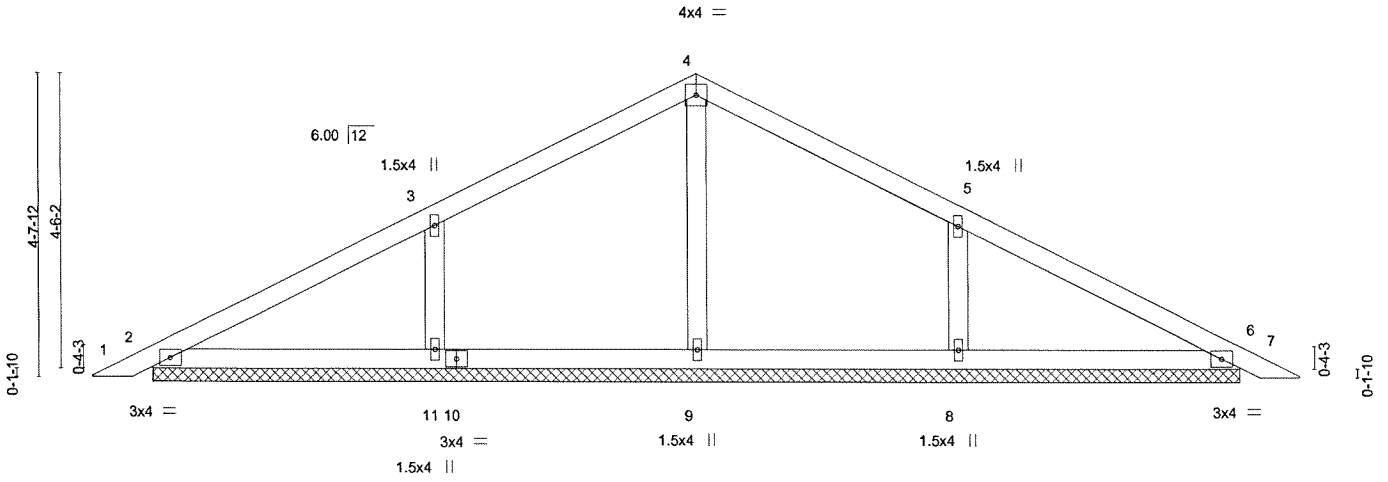
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	PB02	Piggyback	23	1	E13847288
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:36 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-cqjZo7Yynh8150yh0yMdCuFNKRmSpTFUJYCBl9yAOfH

9-3-8 / 9-3-8 — 18-7-0 / 9-3-8

Scale = 1:33.7



18-7-0 / 18-7-0

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	0.18	Vert(LL)	0.00	7	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.01	7	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 67 lb	FT = 20%
BCDL	10.0											

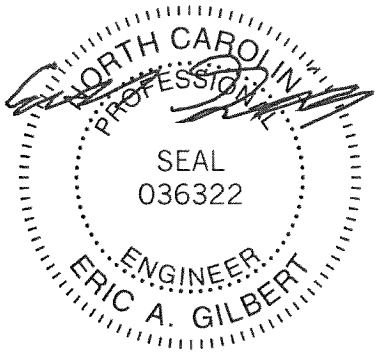
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.3

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 16-7-14.
(lb) - Max Horz 2=77(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 11, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 2, 9, 6 except 11=397(LC 30), 8=397(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-11=-293/82, 5-8=-293/82

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) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11, 8, 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.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 10,2019

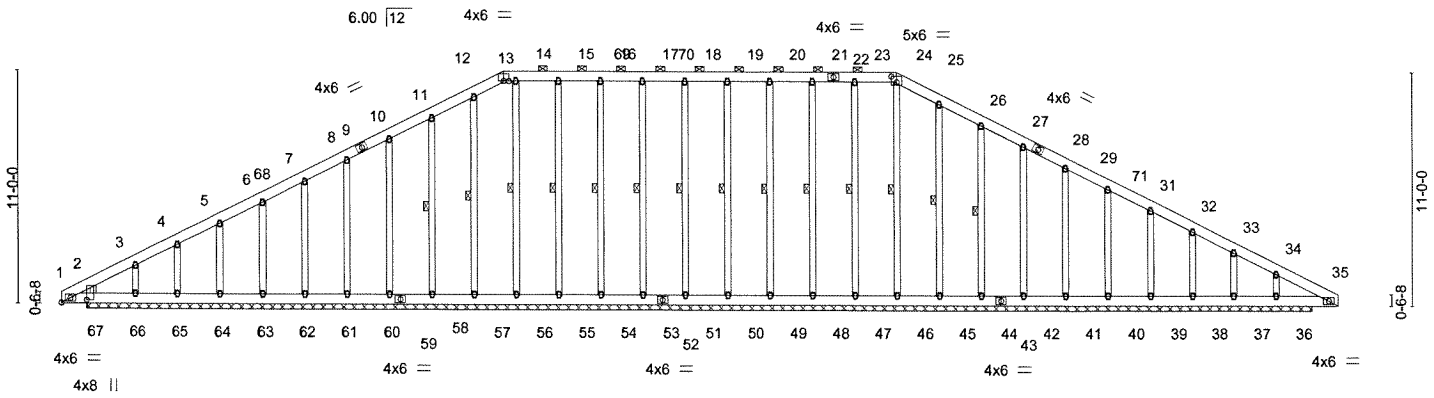
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	T01	Piggyback Base Supported Gable	1	1	E13847289
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:41 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-znXSrqc4cDmKBnqepWypvyyFMSTzUisDSpwyRNyAOfC

20-11-0 | 39-6-0 | 60-5-0
20-11-0 | 18-7-0 | 20-11-0

Scale = 1:104.2



59-2-8 | 60-5-0
59-2-8 | 1-2-8

Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [24:0-3-0,0-3-4], [67:0-1-6,1-2-4], [67:0-0-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	-0.01	36	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 586 lb	FT = 20%

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

BRACING-
TOP CHORD Sheathed or 10-0-0 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 13-24.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 24-46, 23-47, 21-48, 20-49, 19-50, 18-51, 17-53, 16-54, 15-55, 14-56, 12-57, 11-58, 25-45, 26-44

REACTIONS. All bearings 58-0-0.
(lb) - Max Horz 67=-204(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 48, 49, 54, 58, 60, 61, 62, 63, 64, 65, 66, 67, 44, 42, 41, 40, 39, 38, 37
Max Grav All reactions 250 lb or less at joint(s) 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 66, 67, 45, 44, 42, 41, 40, 39, 38, 37 except 36=408(LC 50)

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=60ft; 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=16.5 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, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
5) Unbalanced snow loads have been considered for this design.
6) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
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) 48, 49, 54, 58, 60, 61, 62, 63, 64, 65, 66, 67, 44, 42, 41, 40, 39, 38, 37.
13) Non-Standard bearing condition. Review required.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT
December 10,2019

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

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	T01	Piggyback Base Supported Gable	1	1	E13847289 Job Reference (optional)

NOTES-

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.

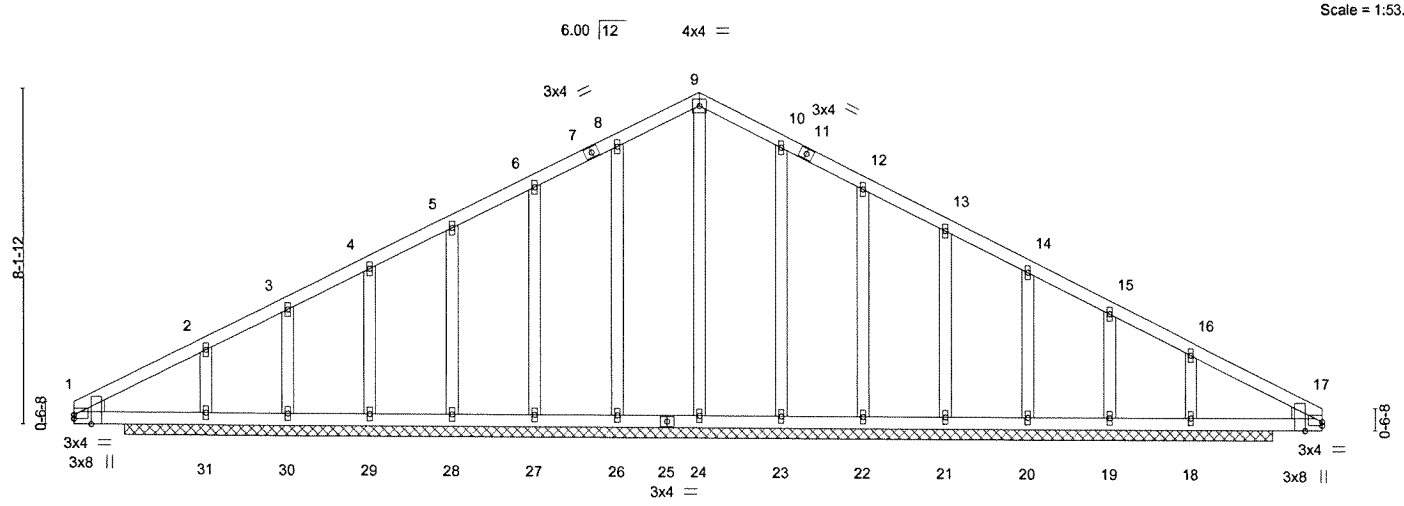
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	T01GE	Common Supported Gable	1	1	E13847290
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:44 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-NMCbTsezv89v2FZDUeVWXaak9fTsh1Lf8n8c1iyAOf9

15-2-8 / 15-2-8 — 30-5-0 / 15-2-8

Scale = 1:53.6



1-2-8 / 1-2-8 — 30-5-0 / 29-2-8

Plate Offsets (X,Y)-- [1:0-0-0,0-1-1], [1:0-2-9,Edge], [17:Edge,0-1-1], [17:0-2-9,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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	-0.01	18	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 182 lb	FT = 20%

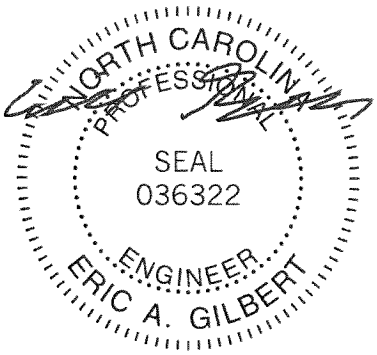
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

REACTIONS. All bearings 28-0-0.
(lb) - Max Horz 31=142(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 26, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19, 18
Max Grav All reactions 250 lb or less at joint(s) 26, 27, 28, 29, 30, 23, 22, 21, 20, 19 except 24=304(LC 2), 31=373(LC 29), 18=373(LC 30)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-14/268, 16-17=-13/265
WEBS 9-24=-264/0

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=30ft; 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) All plates are 1.5x4 MT20 unless otherwise indicated.
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 100 lb uplift at joint(s) 26, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19, 18.
11) Non Standard bearing condition. Review required.
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.



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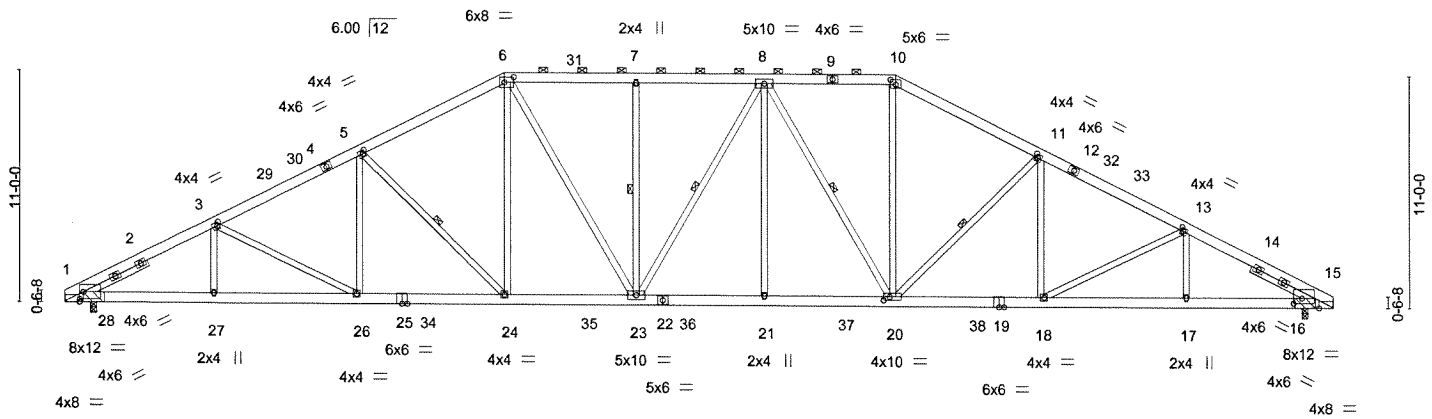
Job	Truss	Truss Type	Qty	Ply	PATTERSON	E13847291
P19-10021	T02	Piggyback Base	7	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:47 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-oxuj5uhrB3XUviHo9m3D9DCDwsNduIN5qlNGe1yAOf6

7-0-14	13-11-15	20-11-0	27-1-15	33-3-1	39-6-0	46-5-1	53-4-2	60-5-0
7-0-14	6-11-1	6-11-1	6-2-15	6-1-3	6-2-15	6-11-1	6-11-1	7-0-14

Scale = 1:104.9



1-4-4										60-5-0
1-2-8	7-0-14	13-11-15	20-11-0	27-1-15	33-3-1	39-6-0	46-5-1	53-4-2	59-0-12	59-2-8
1-2-8	5-8-10	6-11-1	6-11-1	6-2-15	6-1-3	6-2-15	6-11-1	6-11-1	5-8-10	0-1-12
0-1-12										1-2-8

Plate Offsets (X,Y)-- [1:0-2-1,0-4-0], [1:0-2-2,Edge], [3:0-1-8,0-2-0], [5:0-1-8,0-2-0], [6:0-5-4,0-3-0], [10:0-3-0,0-2-12], [11:0-1-8,0-2-0], [13:0-1-8,0-2-0], [15:0-10-0,Edge], [15:0-4-13,0-2-14], [20:0-3-8,0-2-0]

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	0.29	Vert(LL)	-0.31	21-23	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.56	21-23	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.23	15	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 501 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -H 3-4-11, Right 2x4 SP No.3 -H 3-4-11

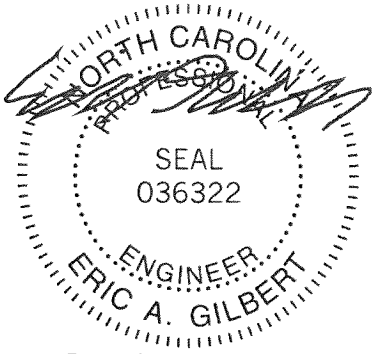
BRACING-
TOP CHORD Sheathed or 3-4-5 oc purlins, except 2-0-0 oc purlins (3-10-9 max.): 6-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-24, 7-23, 8-23, 8-20, 11-20

REACTIONS. (lb/size) 1=1990/(0-3-8 + bearing block) (req. 0-4-6), 15=1990/(0-3-8 + bearing block) (req. 0-4-6)
Max Horz 1=-204(LC 10)
Max Grav 1=2799(LC 23), 15=2797(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-5469/23, 3-5=-4872/69, 5-6=-4150/114, 6-7=-3954/125, 7-8=-3954/125, 8-10=-3666/123, 10-11=-4148/113, 11-13=-4866/70, 13-15=-5466/23
BOT CHORD 1-27=0/4942, 26-27=0/4942, 24-26=0/4409, 23-24=0/3726, 21-23=0/3984, 20-21=0/3984, 18-20=0/4249, 17-18=0/4787, 15-17=0/4787
WEBS 3-27=0/274, 3-26=-601/49, 5-26=0/570, 5-24=-1032/66, 6-24=0/1014, 6-23=-2/828, 7-23=-481/73, 8-21=0/332, 8-20=-835/5, 10-20=0/1469, 11-20=-1026/67, 11-18=0/568, 13-18=-606/49, 13-17=0/275

NOTES-
1) 2x6 SP No.1 bearing block 12" long at jt. 1 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. User Defined Bearing crushing capacity= 425psi.
2) 2x6 SP No.1 bearing block 12" long at jt. 15 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. User Defined Bearing crushing capacity= 425psi.
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=60ft; eave=7ft; 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=16.5 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, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
6) Unbalanced snow loads have been considered for this design.
7) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

Continued on page 2



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NOTES-

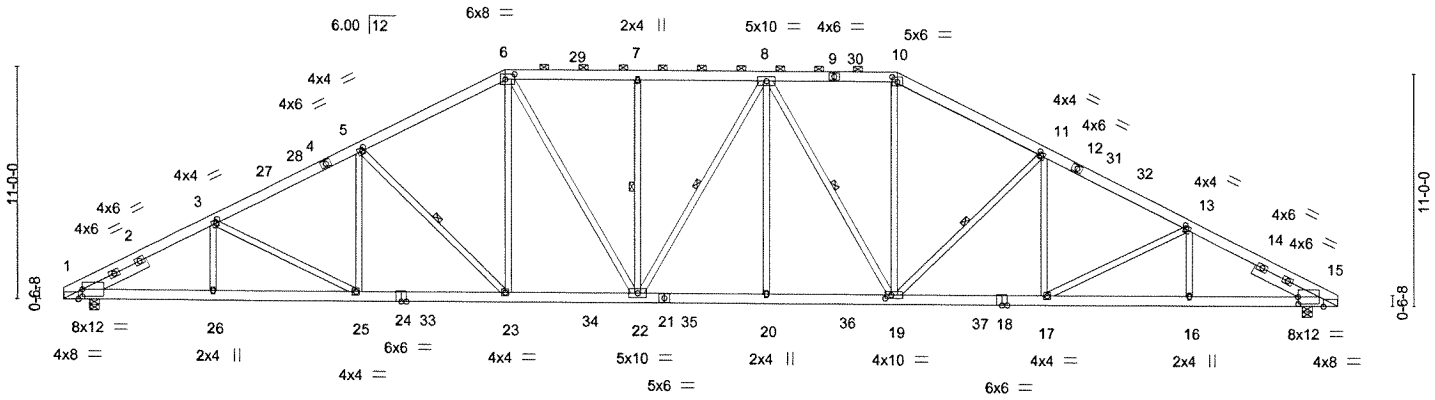
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	PATTERSON	E13847292
P19-10021	T03	Piggyback Base	16	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:52 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-8vhc8bl_0c9m0TAmyJeOsGv4Xt58ZaRq_141JEyAOf1

7-0-14	13-11-15	20-11-0	27-1-15	33-3-1	39-6-0	46-5-1	53-4-2	60-5-0
7-0-14	6-11-1	6-11-1	6-2-15	6-1-3	6-2-15	6-11-1	6-11-1	7-0-14

Scale = 1:104.4



1-5-4									60-5-0
1-2-8	7-0-14	13-11-15	20-11-0	27-1-15	33-3-1	39-6-0	46-5-1	53-4-2	58-11-12	59-2-8
1-2-8	5-7-10	6-11-1	6-11-1	6-2-15	6-1-3	6-2-15	6-11-1	6-11-1	5-7-10	0-2-12
0-2-12										1-2-8

Plate Offsets (X,Y)-- [1:0-0-2,0-4-0], [1:0-2-2,Edge], [3:0-1-8,0-2-0], [5:0-1-8,0-2-0], [6:0-5-4,0-3-0], [10:0-3-0,0-2-12], [11:0-1-8,0-2-0], [13:0-1-8,0-2-0], [15:1-2-7,Edge], [15:0-0-2,0-4-0], [19:0-3-8,0-2-0]

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	0.30	Vert(LL)	-0.31	20-22	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.55	20-22	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.23	15	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 502 lb	FT = 20%
BCDL	10.0											

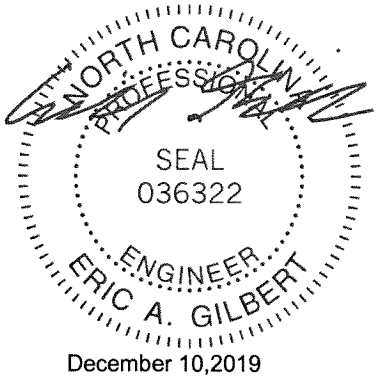
LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -H 3-4-11, Right 2x6 SP No.1 -H 3-4-11

BRACING-
TOP CHORD Sheathed or 3-4-14 oc purlins, except 2-0-0 oc purlins (3-10-11 max.): 6-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-23, 7-22, 8-22, 8-19, 11-19

REACTIONS. (lb/size) 1=1985/0-5-8, 15=1985/0-5-8
Max Horz 1=204(LC 11)
Max Grav 1=2792(LC 23), 15=2790(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-5400/23, 3-5=-4819/69, 5-6=-4127/114, 6-7=-3933/125, 7-8=-3932/125, 8-10=-3644/123, 10-11=-4124/113, 11-13=-4813/70, 13-15=-5397/23
BOT CHORD 1-26=0/4869, 25-26=0/4869, 23-25=0/4377, 22-23=0/3704, 20-22=0/3963, 19-20=0/3963, 17-19=0/4218, 16-17=0/4714, 15-16=0/4714
WEBS 3-26=0/268, 3-25=-554/49, 5-25=0/550, 5-23=-1020/66, 6-23=0/1005, 6-22=-2/828, 7-22=-481/73, 8-20=0/333, 8-19=-835/5, 10-19=0/1459, 11-19=-1013/67, 11-17=0/547, 13-17=-559/48, 13-16=0/269

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=60ft; eave=7ft; 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=16.5 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, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	PATTERSON	E13847293
P19-10021	T04	Common	14	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:54 2019 Page 1
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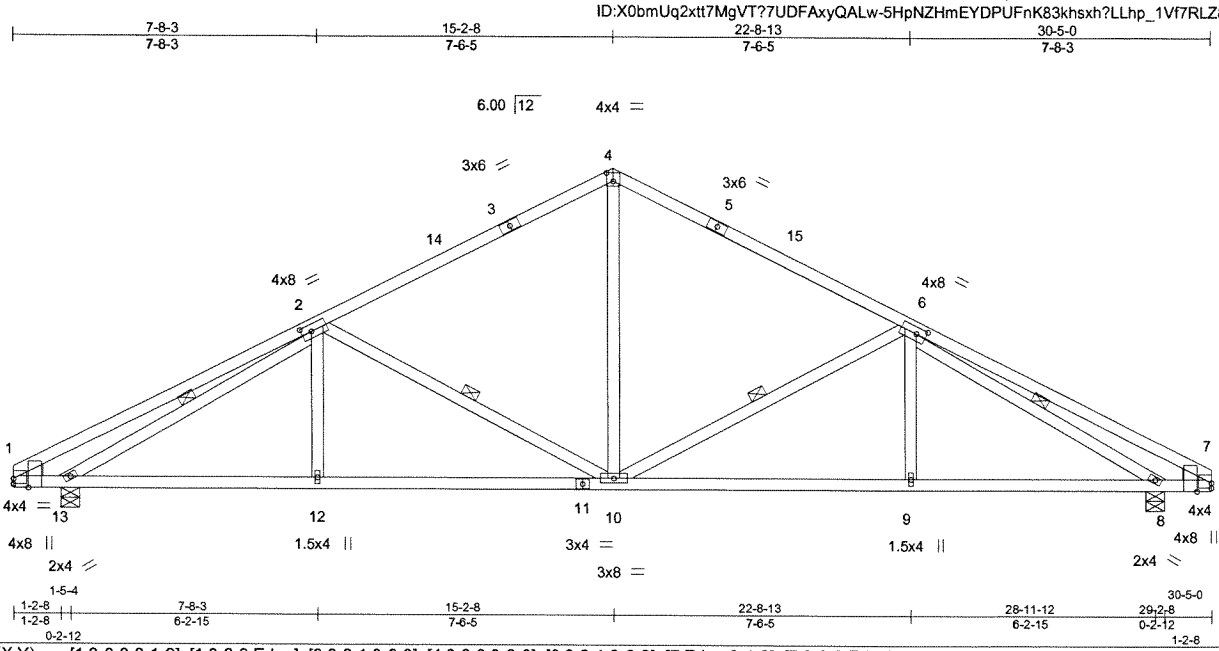


Plate Offsets (X,Y)-- [1:0-0-0,0-1-9], [1:0-2-9,Edge], [2:0-3-1,0-2-0], [4:0-2-0,0-2-8], [6:0-3-1,0-2-0], [7:Edge,0-1-9], [7:0-2-9,Edge]

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	0.60	Vert(LL)	-0.07	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.17	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.06	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 167 lb	FT = 20%

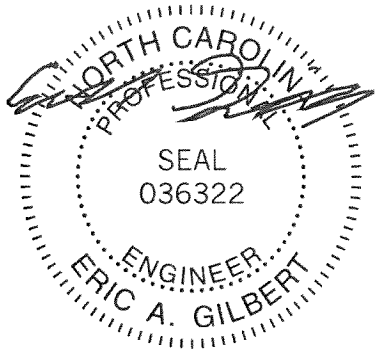
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Sheathed or 4-10-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-10, 2-10, 2-13, 6-8

REACTIONS. (lb/size) 13=960/0-5-8, 8=960/0-5-8
Max Horz 13=142(LC 11)
Max Uplift 13=-20(LC 12)
Max Grav 13=1217(LC 2), 8=1217(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-251/29, 2-4=-1265/75, 4-6=-1265/75, 6-7=-251/29
BOT CHORD 12-13=0/1455, 10-12=0/1455, 9-10=0/1455, 8-9=0/1455
WEBS 4-10=0/645, 6-10=-528/70, 6-9=0/268, 2-10=-528/68, 2-12=0/268, 2-13=-1592/62, 6-8=-1592/47

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=30ft; 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13.
8) 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.



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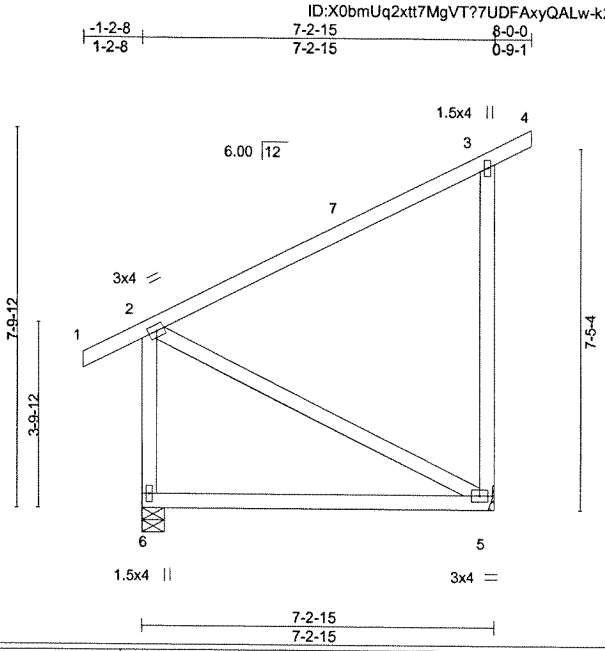
Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	M01	Jack-Closed	14	1	E13847294
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:32 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-k2U2ylVRjSeccPewn7Hh224ZQplwtfKuOwEzcOyAOfL



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	0.69	Vert(LL)	-0.12	5-6	>680	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.25	5-6	>340	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-P							Weight: 52 lb	FT = 20%
BCDL	10.0											

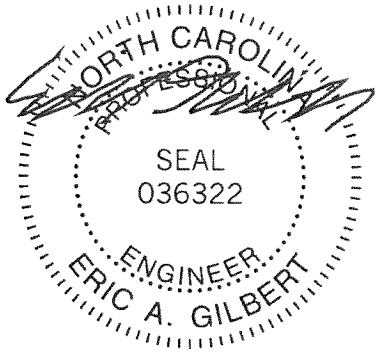
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3

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. (lb/size) 6=243/0-5-8, 5=222/Mechanical
Max Horz 6=228(LC 9)
Max Uplift 5=-119(LC 9)
Max Grav 6=366(LC 25), 5=363(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-297/40, 3-5=-258/81

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=10.0 psf; Pf=7.7 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 7.7 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint 5.
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.



December 10,2019

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

Job	Truss	Truss Type	Qty	Ply	PATTERSON
P19-10021	M02	Monopitch Supported Gable	1	1	E13847295
					Job Reference (optional)

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:33 2019 Page 1
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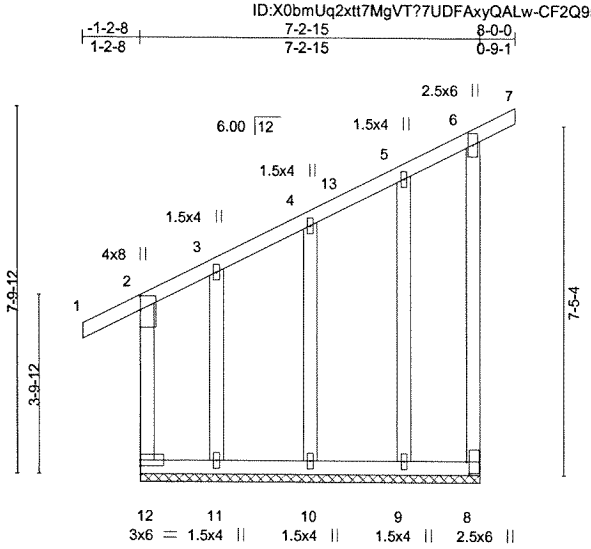


Plate Offsets (X,Y)-- [2:0-3-10,0-0-0], [8:0-3-0,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.00	6	n/r	120	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.00	6	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	-0.00	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-R							Weight: 64 lb	FT = 20%
BCDL	10.0											

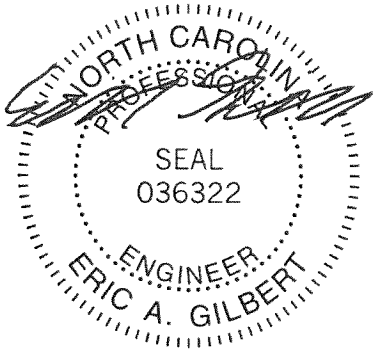
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

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. All bearings 7-2-15.
(lb) - Max Horz 12=228(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) except 12=-187(LC 10), 8=-153(LC 9), 11=-440(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 8, 10, 9 except 12=439(LC 9), 11=356(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-12=-262/67

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=10.0 psf; Pf=7.7 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 7.7 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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 187 lb uplift at joint 12, 153 lb uplift at joint 8 and 440 lb uplift at joint 11.
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.



December 10,2019

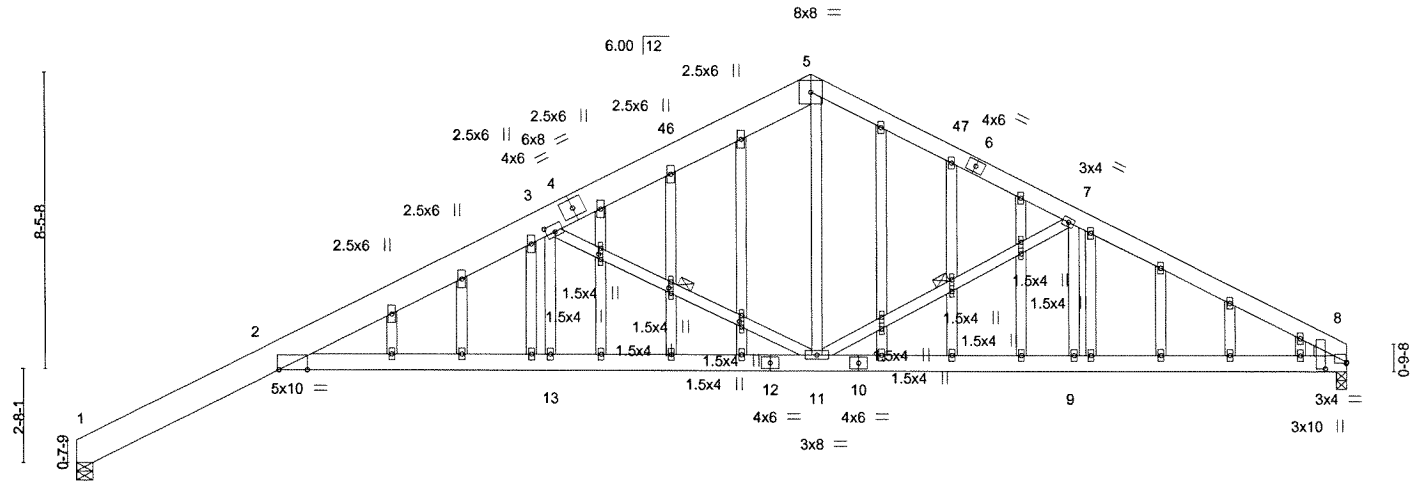
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	PATTERSON	E13847296
P19-10021	T02GE	GABLE	1	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:49 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-kK0UWZi6jhnB90RBHB5hEeHQHg4QMEAOI3sNjvyAOf4

-5-9-10	7-8-15	15-2-6	22-8-10	30-6-6
5-9-10	7-8-15	7-5-7	7-6-4	7-9-12

Scale = 1:62.9



-5-9-10	7-8-15	15-2-6	22-8-10	30-6-6
5-9-10	7-8-15	7-5-7	7-6-4	7-9-12

Plate Offsets (X,Y)-- [2:0-9-8,0-0-0], [3:0-3-0,0-2-8], [8:0-0-2,0-0-7], [8:0-2-6,0-7-7], [14:0-1-14,0-0-12], [17:0-1-14,0-0-12], [20:0-1-14,0-0-12]

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.51	2-13	>851	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-1.02	2-13	>421	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	-0.50	1	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 321 lb	FT = 20%

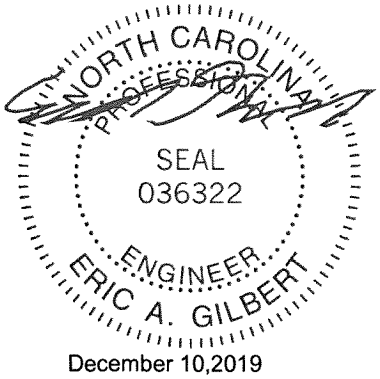
LUMBER-
TOP CHORD 2x10 SP DSS *Except*
5-6,6-8: 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Sheathed or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-11, 7-11

REACTIONS. (lb/size) 8=665/0-3-8, 1=671/0-5-8
Max Horz 8=-112(LC 10)
Max Grav 8=959(LC 2), 1=966(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-394/38, 2-3=-2316/9, 3-5=-1325/47, 5-7=-1286/48, 7-8=-1687/17
BOT CHORD 2-13=0/2258, 11-13=0/2260, 9-11=0/1436, 8-9=0/1436
WEBS 3-13=0/272, 3-11=-1347/33, 5-11=0/921, 7-11=-425/45

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=31ft; 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) 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=10.0 psf; Pf=7.7 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) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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.



December 10,2019

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

Job	Truss	Truss Type	Qty	Ply	PATTERSON	E13847297
P19-10021	T05	Common	4	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:55 2019 Page 1
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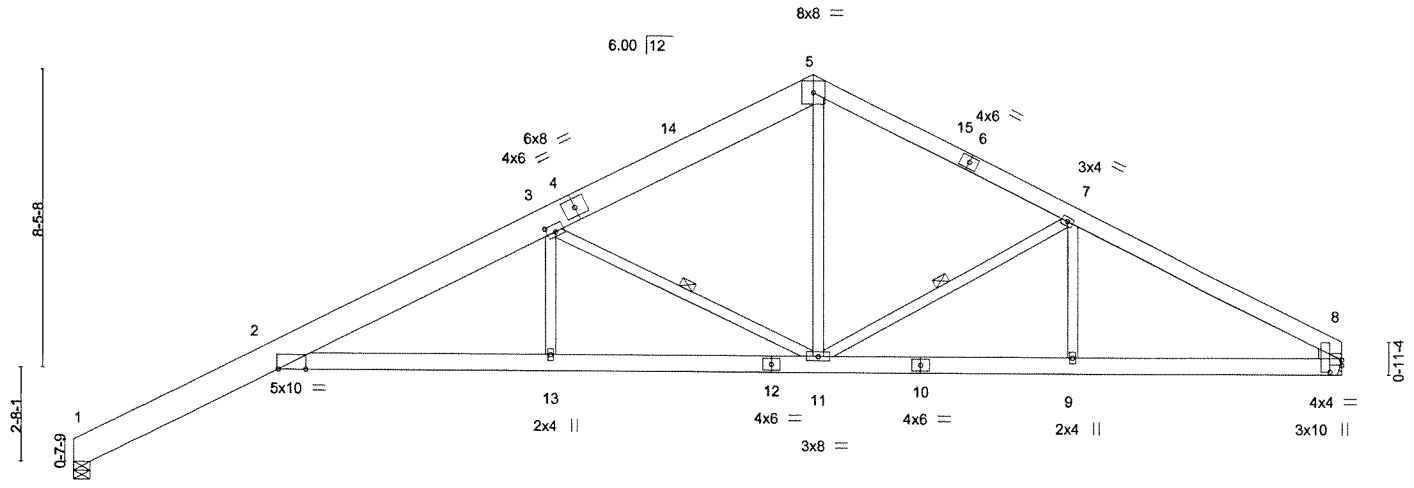
-5-9-10	7-8-15	15-2-6	22-6-14	30-2-14
5-9-10	7-8-15	7-5-7	7-4-8	7-8-0

Scale = 1:62.7



-5-9-10	7-8-15	15-2-6	22-6-14	30-2-14
5-9-10	7-8-15	7-5-7	7-4-8	7-8-0

Plate Offsets (X,Y)-- [2:0-9-8,0-0-0], [3:0-3-0,0-2-8], [8:0-0-0,0-1-13], [8:0-4-2,0-3-15]

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.50	2-13	>854	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-1.02	2-13	>423	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	-0.50	1	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 251 lb	FT = 20%

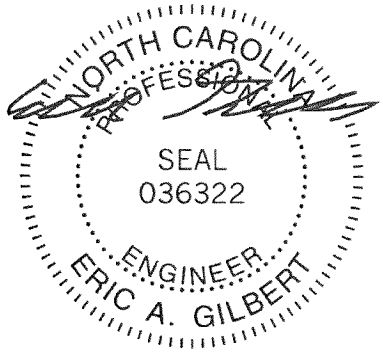
LUMBER-
TOP CHORD 2x10 SP DSS *Except*
5-6,6-8: 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Sheathed or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-11, 7-11

REACTIONS. (lb/size) 8=661/Mechanical, 1=667/0-5-8
Max Horz 8=-112(LC 10)
Max Grav 8=954(LC 2), 1=960(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-391/38, 2-3=-2296/9, 3-5=-1307/47, 5-7=-1267/48, 7-8=-1648/17
BOT CHORD 2-13=0/2239, 11-13=0/2241, 9-11=0/1393, 8-9=0/1393
WEBS 3-13=0/272, 3-11=-1343/33, 5-11=0/908, 7-11=-399/44

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=30ft; 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=10.0 psf; Pf=7.7 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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.



December 10,2019

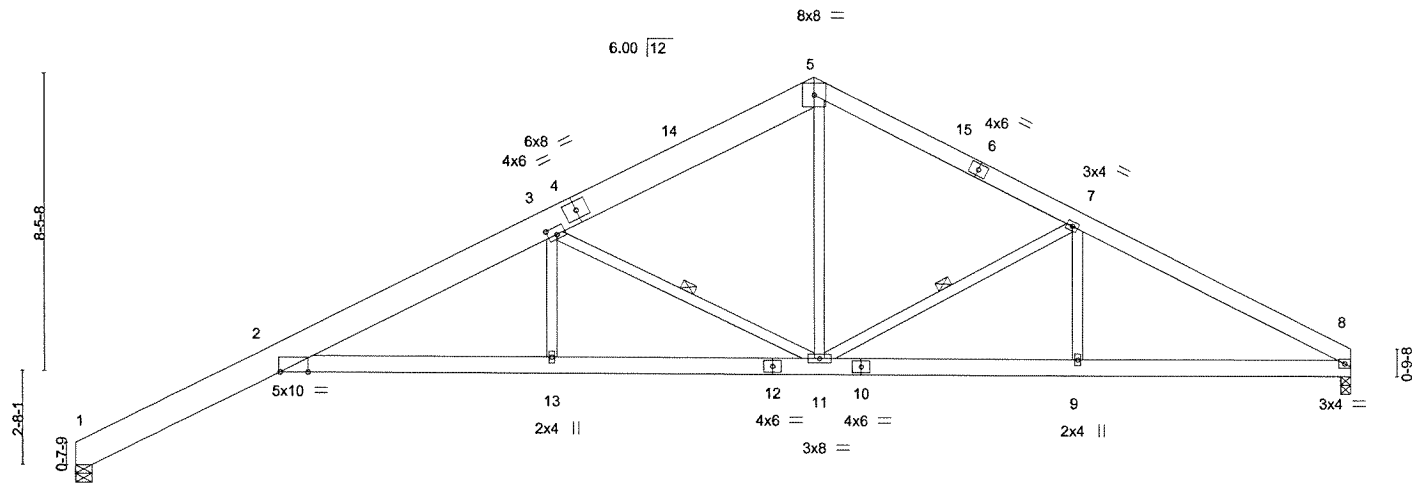
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	PATTERSON	E13847298
P19-10021	T06	Common	18	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:56 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-1gx7_yoV4qfCV5UXB9jK064dWVS3VPvQvf2FR?yAOez

-5-9-10	7-8-15	15-2-6	22-8-10	30-6-6
5-9-10	7-8-15	7-5-7	7-6-4	7-9-12

Scale = 1:62.8



-5-9-10	7-8-15	15-2-6	22-8-10	30-6-6
5-9-10	7-8-15	7-5-7	7-6-4	7-9-12

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

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.51	2-13	>851	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-1.02	2-13	>421	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	-0.50	1	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 251 lb	FT = 20%
BCDL	10.0											

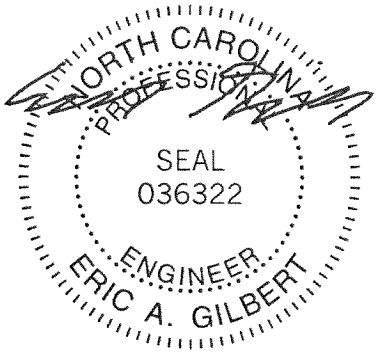
LUMBER-
TOP CHORD 2x10 SP DSS *Except* 5-6,6-8: 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Sheathed or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-11, 7-11

REACTIONS. (lb/size) 8=665/0-3-8, 1=671/0-5-8
Max Horz 8=-112(LC 10)
Max Grav 8=959(LC 2), 1=966(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-394/38, 2-3=-2316/9, 3-5=-1325/47, 5-7=-1286/48, 7-8=-1687/17
BOT CHORD 2-13=0/2258, 11-13=0/2260, 9-11=0/1436, 8-9=0/1436
WEBS 3-13=0/272, 3-11=-1347/33, 5-11=0/921, 7-11=-425/45

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=31ft; 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=10.0 psf; Pf=7.7 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 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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) 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.



December 10,2019

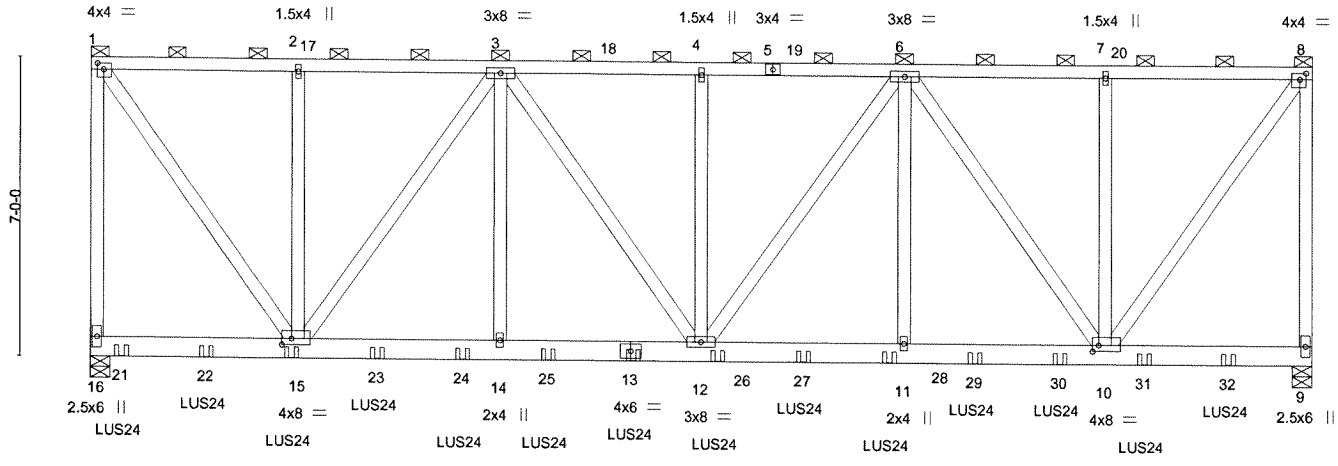
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	PATTERSON	
P19-10021	T07	FLAT GIRDER	1	2	Job Reference (optional)	E13847299

Longleaf Truss Company, West End, NC - 27376, 8.330 s Dec 5 2019 MiTek Industries, Inc. Tue Dec 10 10:30:59 2019 Page 1
ID:X0bmUq2xtt7MgVT?7UDFAxyQALw-RFcGc_qNNl2nMYC6slG1ekiDaiYAiigsbdHv2KyAOew

4-10-8	9-7-4	14-4-0	19-0-12	23-9-8	28-8-0
4-10-8	4-8-12	4-8-12	4-8-12	4-8-12	4-10-8

Scale = 1:51.7



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4-10-8	4-8-12	4-8-12	4-8-12	4-8-12	4-10-8

Plate Offsets (X,Y)-- [1:0-1-12,0-1-12], [8:0-1-12,0-1-12], [10:0-1-12,0-1-12], [15:0-2-12,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.07	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.13	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.72	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 486 lb	FT = 20%
BCDL	10.0											

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

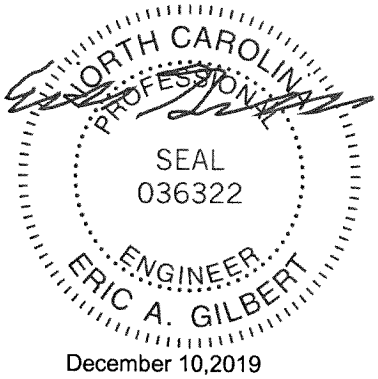
BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 16=2889/0-5-8, 9=2726/0-5-8
Max Horz 16=-186(LC 10)
Max Uplift 16=-953(LC 12), 9=-878(LC 12)
Max Grav 16=3384(LC 2), 9=3199(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-16=-2970/835, 1-2=-2044/638, 2-3=-2044/638, 3-4=-3615/1077, 4-6=-3615/1077, 6-7=-2037/635, 7-8=-2037/635, 8-9=-2960/831
BOT CHORD 14-15=-914/3218, 12-14=-914/3218, 11-12=-911/3212, 10-11=-911/3212
WEBS 1-15=-983/3493, 2-15=-301/76, 3-15=-2022/566, 3-14=-251/812, 3-12=-190/683, 4-12=-280/58, 6-12=-195/695, 6-11=-246/803, 6-10=-2022/566, 7-10=-301/76, 8-10=-979/3481

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=29ft; 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
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 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, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=953, 9=878.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2



December 10,2019

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

NOTES-

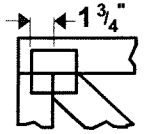
12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-8-12 from the left end to 26-8-12 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

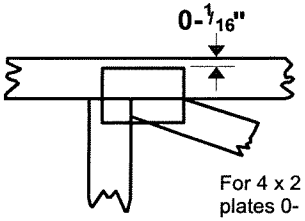
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-8=-45, 9-16=-20
   Concentrated Loads (lb)
   Vert: 13=-268(B) 15=-268(B) 21=-272(B) 22=-268(B) 23=-268(B) 24=-268(B) 25=-268(B) 26=-268(B) 27=-268(B) 28=-268(B) 29=-268(B) 30=-268(B) 31=-268(B) 32=-268(B)

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

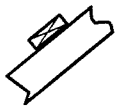
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

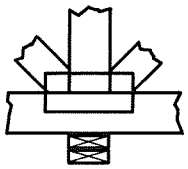
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

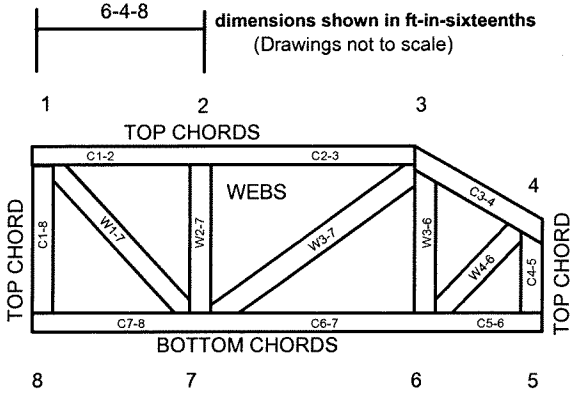


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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.

MiTek

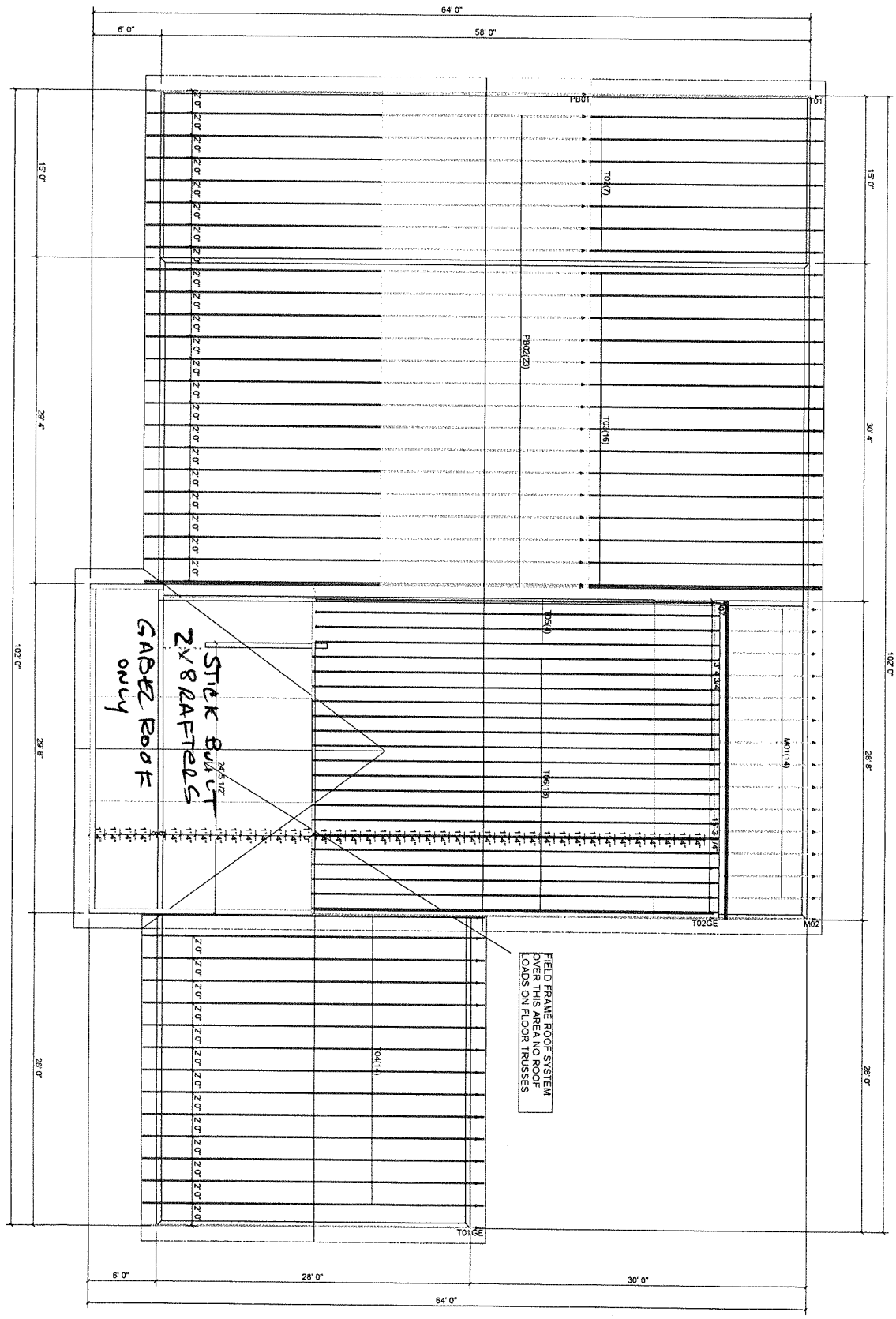
ENGINEERING BY TRENCO
A MiTek Affiliate

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.

Floor Area: 1623 SF
Floor Plywood: 1843.45
Roof Area: 6468.21 SF
Roof Plywood: 90 sheets
Roof Shingles: 81 Squares



ROOF TRUSS LAYOUT

1/4" = 1'-0"

SFD1909-0021

Client: SERVICE BUILDING SUPPLY SANF			
Project: PATTERSON			
Model: ROOF			
Lot #:	Subdivision:		
Order #: P19-10021	Designer:	Date: / /	

LONGLEAF TRUSS CO.
4476 Hwy. 21 W
West End, NC 27376
(910) 673-4711

NOTE

IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER OR ARCHITECT TO PROVIDE AN APPROPRIATE CONNECTION FOR TRUSSES TO SUPPORTING STRUCTURE PERREACTIONS SHOWN ON TRUSS ENGINEERING. SPECIAL CONSIDERATIONS FOR MECHANICAL EQUIPMENT AND/OR PLUMBING (AND THEIR CONNECTIONS) IN TRUSS SPACE MUST BE DIAGRAMMED BY BUILDER ON APPROVED TRUSS LAYOUT PRIOR TO FABRICATION.

THIS COMPANY IS A TRUSS MANUFACTURER WHOSE RESPONSIBILITIES ARE LIMITED TO THOSE DESCRIBED IN WTCA1-1995 "DESIGN RESPONSIBILITIES". ACCORDINGLY, IT DISCLAIMS ANY RESPONSIBILITIES AND/OR LIABILITY FOR THE CONSTRUCTION, DESIGN, DRAWINGS, DOCUMENTS INCLUDING THE INSTALLATION AND BRACING OF TRUSSES MANUFACTURED BY THIS COMPANY. SEE http://support.sbcindustry.com/pubs/TTBDResp-D