ENGINEERING BY TRENCO
A MiTek Affiliate

RE: 3882933

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: 3882933
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: Wind Speed: 125 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

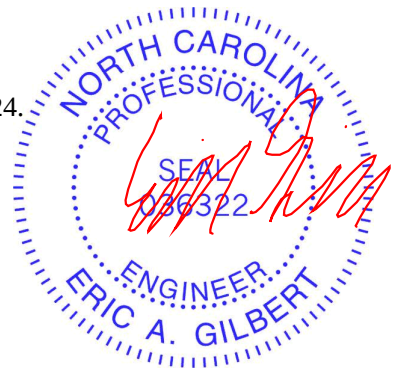
No.	Seal#	Truss Name	Date
1	I63943546	A1	3/1/2024
2	I63943547	A1E	3/1/2024
3	I63943548	A1G	3/1/2024
4	I63943549	PB1	3/1/2024
5	I63943550	T1	3/1/2024
6	I63943551	T1A	3/1/2024
7	I63943552	T1AE	3/1/2024
8	I63943553	T1E	3/1/2024
9	I63943554	T02	3/1/2024
10	I63943555	T02E	3/1/2024
11	I63943556	T2E	3/1/2024
12	I63943557	T3	3/1/2024
13	I63943558	T3E	3/1/2024
14	I63943559	T4	3/1/2024
15	I63943560	T4E	3/1/2024

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Albermarle,NC).

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

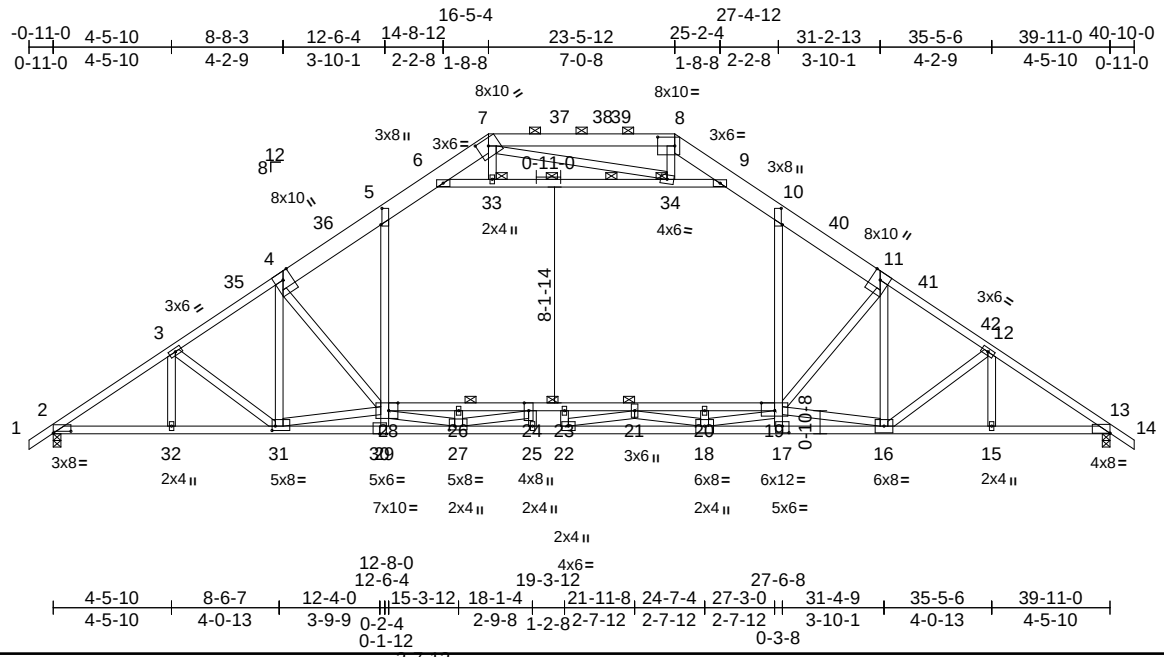
March 01, 2024

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	
3882933	A1	Attic	9	1	I63943546 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:52:47 ID:rjZYkEDDyH86Kz2j?QdO7DzBGNQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:87

Plate Offsets (X, Y): [2:0-8-0,0-0-14], [5:0-7-7,0-0-8], [7:0-5-0,0-3-4], [8:0-7-12,0-4-0], [10:0-7-7,0-0-8], [13:Edge,0-0-1], [17:0-3-0,0-3-0], [19:0-6-0,Edge], [27:0-2-8,0-1-12], [28:0-4-4,Edge], [31:0-1-8,0-2-0]

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	0.65	Vert(LL)	-0.28	21-23	>999	360	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.61	18-22	>782	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.13	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.11	19	>999	240		
BCDL	10.0										Weight: 335 lb	FT = 20%

LUMBER

TOP CHORD 2x8 SP 2400F 2.0E or 2x8 SP DSS *Except* 7-8:2x6 SP No.2, 1-4,11-14:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS

BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS *Except* 28-19:2x4 SP No.2

WEBS 2x4 SP No.3 *Except* 5-29,10-17,6-9,19-16,28-31,18-19,27-28,18-21,27-24,22-21:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-0-2 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 29-31,27-29. 4-8-0 oc bracing: 21-28 6-0-0 oc bracing: 19-21

WEBS 2 Rows at 1/3 pts 33-34

JOINTS 1 Brace at Jt(s): 33, 34, 21

REACTIONS (size) 2=0-3-8, 13=0-3-8
Max Horiz 2=-264 (LC 10)
Max Grav 2=2442 (LC 27), 13=2812 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension

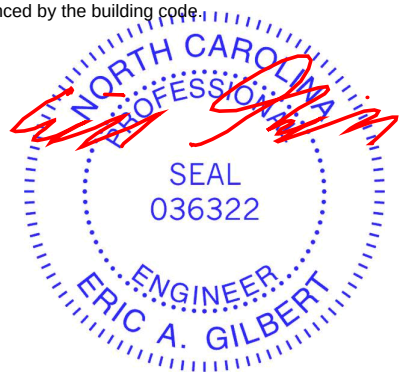
TOP CHORD 1-2=0/30, 2-3=-3942/0, 3-5=-3868/0, 5-6=-2878/0, 6-7=-687/64, 7-8=-613/157, 8-9=-837/0, 9-10=-2894/0, 10-12=-4281/0, 12-13=-4594/0, 13-14=0/30

BOT CHORD 2-32=0/3343, 31-32=0/3343, 29-31=-757/1225, 27-29=-806/1202, 25-27=0/3920, 22-25=0/3920, 18-22=0/3911, 16-18=0/2151, 15-16=0/3720, 13-15=0/3720, 26-28=0/1156, 24-26=0/1156, 23-24=-1206/87, 21-23=-1206/87, 20-21=-643/517, 19-20=-643/517

WEBS 28-29=0/192, 5-28=0/1682, 17-19=0/138, 10-19=0/1731, 6-33=-3251/0, 33-34=-3224/0, 9-34=-3132/0, 11-19=-805/0, 11-16=-224/325, 12-16=-501/0, 16-19=-103/2410, 12-15=0/161, 4-28=-389/376, 3-32=0/177, 3-31=-164/139, 4-31=-583/0, 28-31=0/3023, 7-33=0/244, 7-34=-10/365, 8-34=-37/195, 18-19=0/2307, 27-28=0/2593, 18-20=-337/0, 26-27=-338/0, 18-21=-967/176, 24-27=-1689/0, 21-22=-418/250, 24-25=0/194, 22-23=-87/78

NOTES (15)

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
9) Ceiling dead load (5.0 psf) on member(s). 5-6, 9-10, 6-33, 33-34, 9-34; Wall dead load (5.0psf) on member (s).5-28, 10-19
10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 26-28, 24-26, 23-24, 21-23, 20-21, 19-20
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Attic room checked for L/360 deflection.
15) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-5=-40, 5-6=-50, 6-7=-40, 7-8=-50, 8-9=-40, 9-10=-50, 10-14=-40, 2-13=-20, 19-28=-30, 6-33=-10, 33-34=-10, 9-34=-10
   Drag: 5-28=-10, 10-19=-10
   Concentrated Loads (lb)
   Vert: 39=-280, 42=-460

Job	Truss	Truss Type	Qty	Ply	
3882933	A1E	Attic Structural Gable	1	1	I63943547 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:52:51 Page: 1

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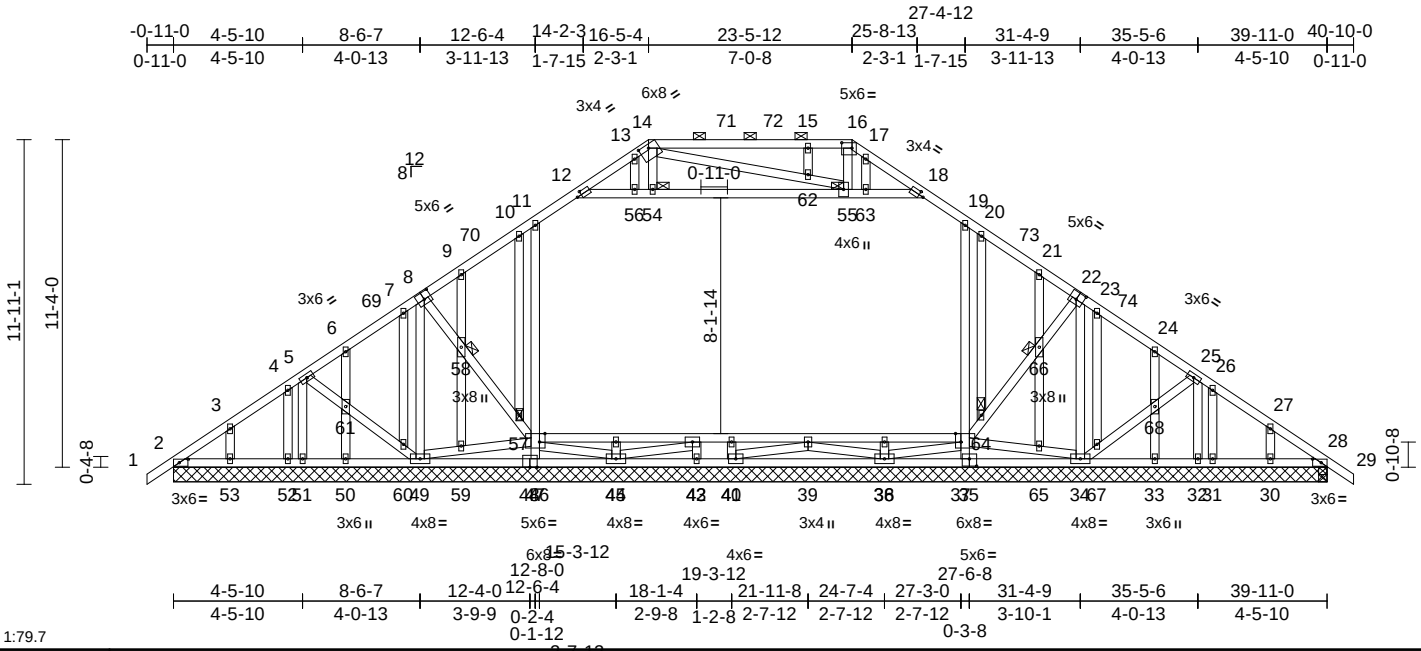

Scale = 1:79.7

Plate Offsets (X, Y): [2:0-3-10,0-1-8], [8:0-3-0,0-3-0], [12:0-1-15,0-1-8], [14:0-4-0,0-1-9], [16:0-4-4,0-2-4], [18:0-1-15,0-1-8], [22:0-3-0,0-3-0], [28:0-3-10,0-1-8], [35:0-3-0,0-3-0], [37:0-2-4,Edge], [46:0-2-4,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	0.63	Vert(LL)	-0.02	36-40	>999	360	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.03	36-40	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.01	28	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.00	19	>999	240		
BCDL	10.0										Weight: 378 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 11-47,19-35,12-18:2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (5-5-7 max.): 14-16.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 54, 55, 57, 58, 64, 66

REACTIONS (size) 2=39-11-0, 28=0-3-8, 30=39-11-0, 31=39-11-0, 32=39-11-0, 33=39-11-0, 34=39-11-0, 35=39-11-0, 36=39-11-0, 39=39-11-0, 40=39-11-0, 43=39-11-0, 45=39-11-0, 47=39-11-0, 49=39-11-0, 50=39-11-0, 51=39-11-0, 52=39-11-0, 53=39-11-0
Max Horiz 2=-265 (LC 10)
Max Uplift 2=-58 (LC 8), 30=-61 (LC 13), 31=-6 (LC 13), 32=-19 (LC 9), 33=-44 (LC 13), 34=-112 (LC 13), 47=-2 (LC 12), 49=-98 (LC 12), 50=-49 (LC 12), 52=-15 (LC 12), 53=-61 (LC 12)
Max Grav 2=257 (LC 2), 28=278 (LC 2), 30=147 (LC 28), 31=175 (LC 2), 32=255 (LC 2), 33=206 (LC 2), 34=402 (LC 36), 35=433 (LC 46), 36=386 (LC 19), 39=338 (LC 30), 40=286 (LC 19), 43=221 (LC 19), 45=384 (LC 19), 47=477 (LC 44), 49=400 (LC 36), 50=205 (LC 2), 51=259 (LC 2), 52=169 (LC 2), 53=169 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/29, 2-3=-298/150, 3-4=-280/142, 4-5=-275/131, 5-6=-466/115, 6-7=-497/110, 7-9=-686/110, 9-10=-655/105, 10-11=-617/112, 11-12=-733/90, 12-13=-782/133, 13-14=-731/126, 14-15=-650/125, 15-16=-652/125, 16-17=-672/105, 17-18=-757/127, 18-19=-734/82, 19-20=-611/90, 20-21=-653/84, 21-23=-686/76, 23-24=-497/69, 24-25=-466/71, 25-26=-260/32, 26-27=-248/34, 27-28=-261/43, 28-29=0/30
BOT CHORD 2-53=-101/240, 52-53=-101/240, 51-52=-101/240, 50-51=-101/240, 49-50=-101/240, 47-49=-54/253, 45-47=-60/300, 43-45=-39/288, 40-43=-39/288, 36-40=-22/183, 34-36=-34/314, 33-34=-24/201, 32-33=-24/201, 31-32=-24/201, 30-31=-24/201, 28-30=-24/201, 44-46=-16/163, 42-44=-16/163, 41-42=-38/274, 39-41=-38/274, 38-39=-36/193, 37-38=-36/193

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WEBS 46-47=-411/45, 11-46=-371/120, 35-37=-393/32, 19-37=-386/113, 12-56=-98/201, 54-56=-98/201, 54-55=-88/207, 55-63=-88/173, 18-63=-88/173, 22-34=-431/20, 37-64=-22/209, 64-66=-25/235, 22-66=-25/262, 25-32=-245/26, 37-65=-26/212, 34-65=-28/220, 34-67=-47/253, 67-68=-44/276, 25-68=-44/260, 8-49=-426/40, 5-51=-248/3, 5-61=0/245, 60-61=0/265, 49-60=0/230, 8-58=0/261, 57-58=0/236, 46-57=0/205, 49-59=-39/206, 46-59=-39/200, 14-54=0/159, 16-55=0/131, 14-62=-90/66, 55-62=-126/81, 36-37=-72/109, 45-46=-1/117, 36-38=-326/0, 44-45=-350/0, 36-39=-20/196, 42-45=-23/116, 39-40=-18/110, 42-43=-216/0, 40-41=-202/0, 13-56=-121/39, 10-57=-42/5, 9-58=-54/33, 58-59=-24/32, 7-60=-56/14, 6-61=-139/70, 50-61=-170/70, 4-52=-139/33, 3-53=-126/87, 15-62=-135/49, 17-63=-101/93, 20-64=-43/5, 21-66=-55/38, 65-66=-27/36, 23-67=-57/13, 24-68=-137/67, 33-68=-170/65, 26-31=-142/24, 27-30=-110/88

NOTES (18)

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
12) Ceiling dead load (5.0 psf) on member(s). 11-12, 18-19, 12-56, 54-56, 54-55, 55-63, 18-63; Wall dead load (5.0psf) on member(s).11-46, 19-37
13) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 44-46, 42-44, 41-42, 39-41, 38-39, 37-38
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 2, 2 lb uplift at joint 47, 112 lb uplift at joint 34, 19 lb uplift at joint 32, 98 lb uplift at joint 49, 49 lb uplift at joint 50, 15 lb uplift at joint 52, 61 lb uplift at joint 53, 44 lb uplift at joint 33, 6 lb uplift at joint 31 and 61 lb uplift at joint 30.
15) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
17) Attic room checked for L/360 deflection.
18) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
3882933	A1G	Attic Girder	2	**2**	I63943548 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:52:54
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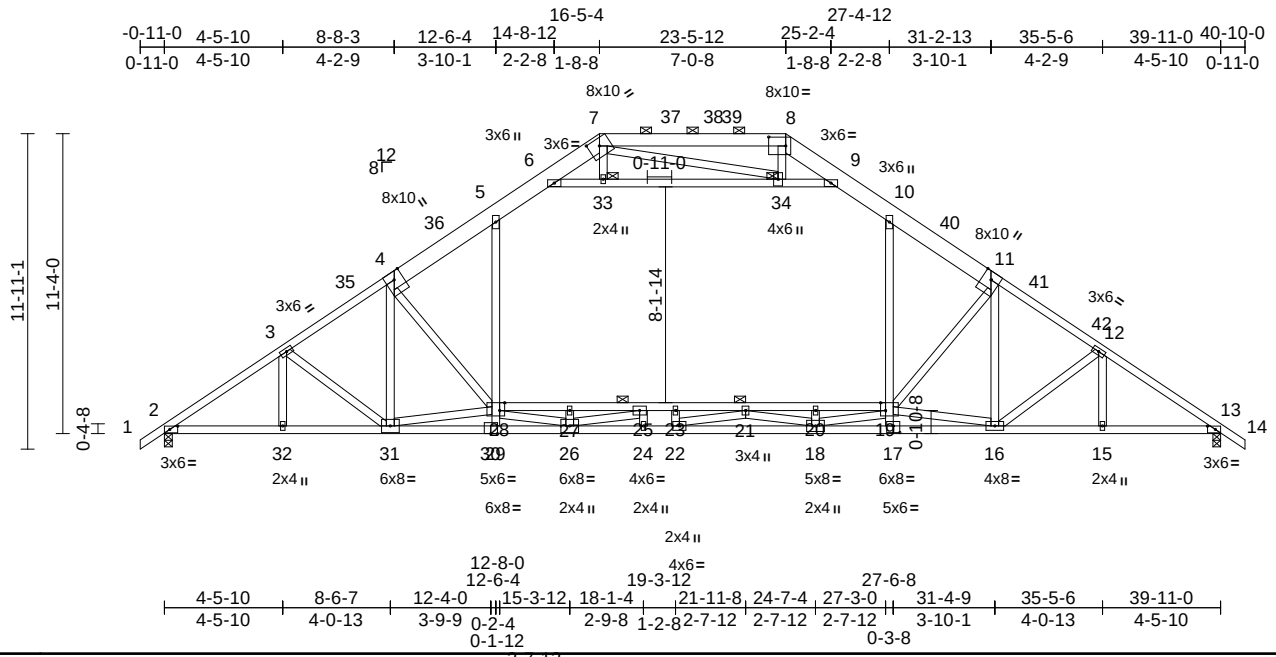

Scale = 1:87.1

Plate Offsets (X, Y): [2:0-3-10,0-1-8], [7:0-5-0,0-3-4], [8:0-7-12,0-4-0], [13:0-3-10,0-1-8], [17:0-3-0,0-3-0], [19:0-2-4,Edge], [28:0-2-4,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	0.32	Vert(LL)	-0.14	21-23	>999	360	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.32	18-22	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.07	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.06	19	>999	240		
BCDL	10.0										Weight: 669 lb	FT = 20%

LUMBER

TOP CHORD 2x8 SP 2400F 2.0E or 2x8 SP DSS *Except* 7-8:2x6 SP No.2, 4-1,11-14:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS

BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS *Except* 28-19:2x4 SP No.2

WEBS 2x4 SP No.3 *Except* 5-29,10-17,6-9:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 29-31,26-29. 6-0-0 oc bracing: 21-28, 19-21

JOINTS 1 Brace at Jt(s): 33, 34, 21

REACTIONS (size) 2=0-3-8, 13=0-3-8
Max Horiz 2=-264 (LC 10)
Max Grav 2=2485 (LC 27), 13=3001 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-4017/0, 3-5=-3975/0, 5-6=-2962/0, 6-7=-659/92, 7-8=-607/163, 8-9=-829/0, 9-10=-2966/0, 10-12=-4597/0, 12-13=-4913/0, 13-14=0/30

BOT CHORD 27-28=0/1314, 25-27=0/1314, 23-25=-1180/126, 21-23=-1180/126, 20-21=-800/344, 19-20=-800/344, 2-32=0/3404, 31-32=0/3404, 29-31=-904/1081, 26-29=-962/1049, 24-26=0/3988, 22-24=0/3988, 18-22=0/4092, 16-18=0/2503, 15-16=0/3995, 13-15=0/3995

WEBS 28-29=0/205, 5-28=0/1724, 17-19=-1/130, 10-19=0/1840, 6-33=-3394/0, 33-34=-3366/0, 9-34=-3232/0, 11-19=-1026/0, 16-19=-205/2268, 4-28=-342/425, 28-31=0/3210, 7-33=0/253, 8-34=-43/188, 7-34=0/411, 18-19=0/2205, 26-28=0/2675, 18-20=-333/0, 26-27=-337/0, 18-21=-866/277, 25-26=-1816/0, 21-22=-535/129, 24-25=0/216, 22-23=-68/97, 11-16=-160/382, 12-15=0/156, 12-16=-551/0, 4-31=-630/0, 3-32=0/178, 3-31=-162/140

NOTES (17)

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, 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) All plates are 3x6 MT20 unless otherwise indicated.
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 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
12) Ceiling dead load (5.0 psf) on member(s). 5-6, 9-10, 6-33, 33-34, 9-34; Wall dead load (5.0psf) on member (s).5-28, 10-19
13) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-28, 25-27, 23-25, 21-23, 20-21, 19-20
14) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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Continued on page 2

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15) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
17) Attic room checked for L/360 deflection.
18) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-5=-40, 5-6=-50, 6-7=-40, 7-8=-50, 8-9=-40, 9-10=-50, 14-42=-40, 19-28=-30, 2-13=-20, 6-33=-10, 33-34=-10, 9-34=-10
   Drag: 5-28=-10, 10-19=-10
   Concentrated Loads (lb)
   Vert: 39=-280, 42=-460
   Trapezoidal Loads (lb/ft)
   Vert: 10=-41-to-40=-55, 40=-55-to-11=-71, 11=-71-to-41=-81, 41=-81-to-42=-100

Job	Truss	Truss Type	Qty	Ply	
3882933	PB1	Piggyback	12	1	I63943549 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:52:56 Page: 1
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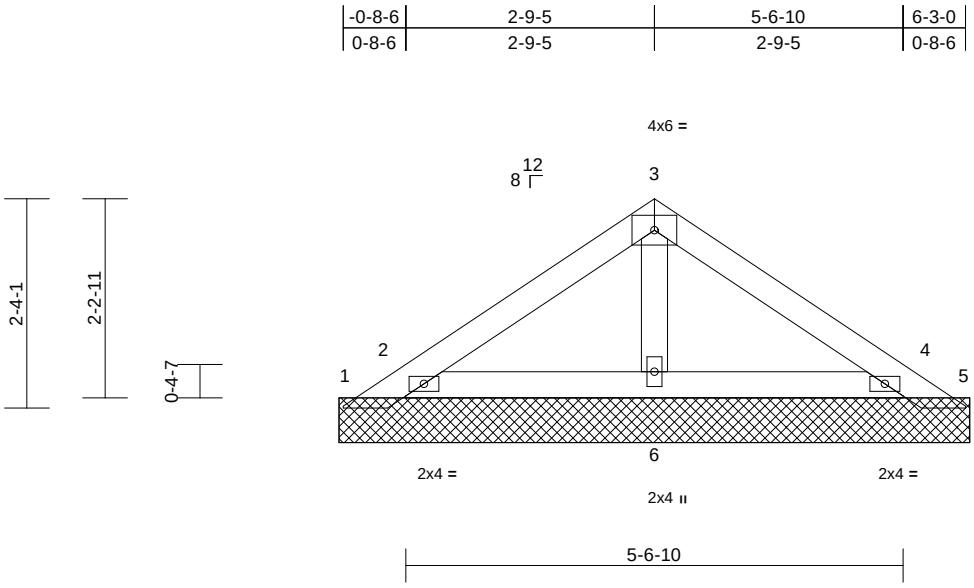

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 23 lb	FT = 20%

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

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

REACTIONS (size) 1=7-0-8, 2=7-0-8, 4=7-0-8, 5=7-0-8, 6=7-0-8
Max Horiz 1=49 (LC 9)
Max Uplift 1=-121 (LC 26), 2=-125 (LC 12), 4=-113 (LC 13), 5=-101 (LC 27)
Max Grav 1=89 (LC 12), 2=281 (LC 26), 4=268 (LC 27), 5=70 (LC 13), 6=180 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-71/107, 2-3=-78/39, 3-4=-75/28, 4-5=-34/65
BOT CHORD 2-6=-14/34, 4-6=-14/34
WEBS 3-6=-110/18

NOTES (13)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) 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 3-06-00 tall by 1-00-00 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 121 lb uplift at joint 1, 101 lb uplift at joint 5, 125 lb uplift at joint 2 and 113 lb uplift at joint 4.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
13) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
3882933	T1	Common	14	1	I63943550 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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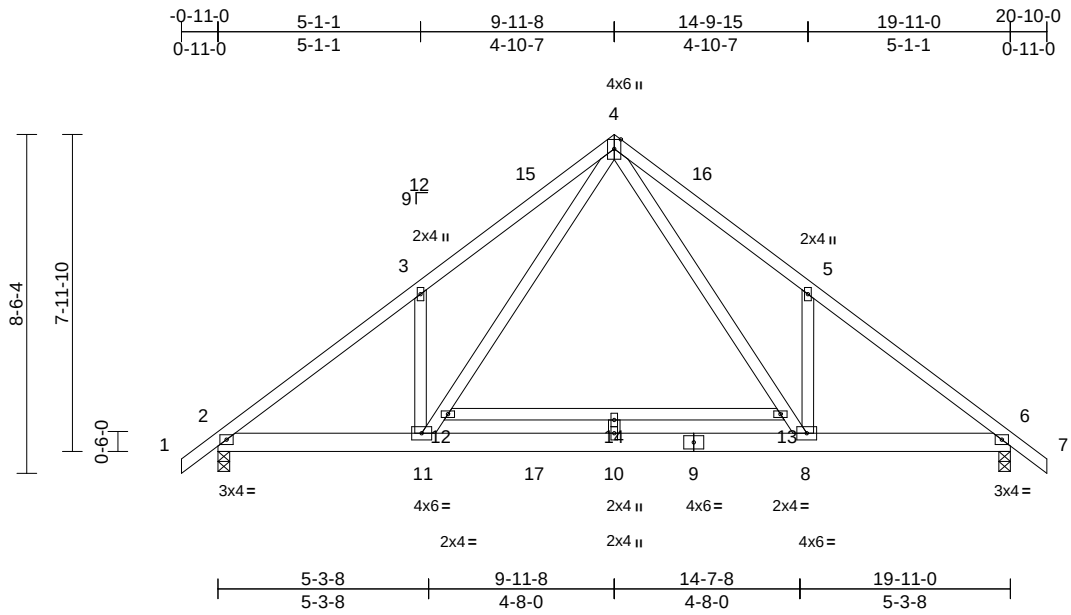

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.07	10	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.16	10	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.04	10	>999	240		
BCDL	10.0										Weight: 137 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-4 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 Horiz 2=-187 (LC 10)
Max Uplift 2=-85 (LC 12), 6=-85 (LC 13)
Max Grav 2=915 (LC 2), 6=915 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-3=-1232/83, 3-4=-1210/259, 4-5=-1207/254, 5-6=-1234/84, 6-7=0/31
BOT CHORD 2-11=-92/931, 10-11=0/557, 8-10=0/557, 6-8=-2/900
WEBS 4-13=-180/670, 8-13=-183/662, 11-12=-189/670, 4-12=-185/677, 3-11=-306/235, 5-8=-302/232, 12-14=-3/8, 13-14=-3/8, 10-14=0/34

NOTES (12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 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 3-06-00 tall by 1-00-00 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 85 lb uplift at joint 2 and 85 lb uplift at joint 6.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 10 lb up at 11-11-8, and 67 lb down and 10 lb up at 7-11-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
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
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-40, 4-7=-40, 2-6=-20
Concentrated Loads (lb)
Vert: 9=-50 (F), 17=-50 (F)

March 1,2024

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
3882933	T1A	Common	7	1	I63943551 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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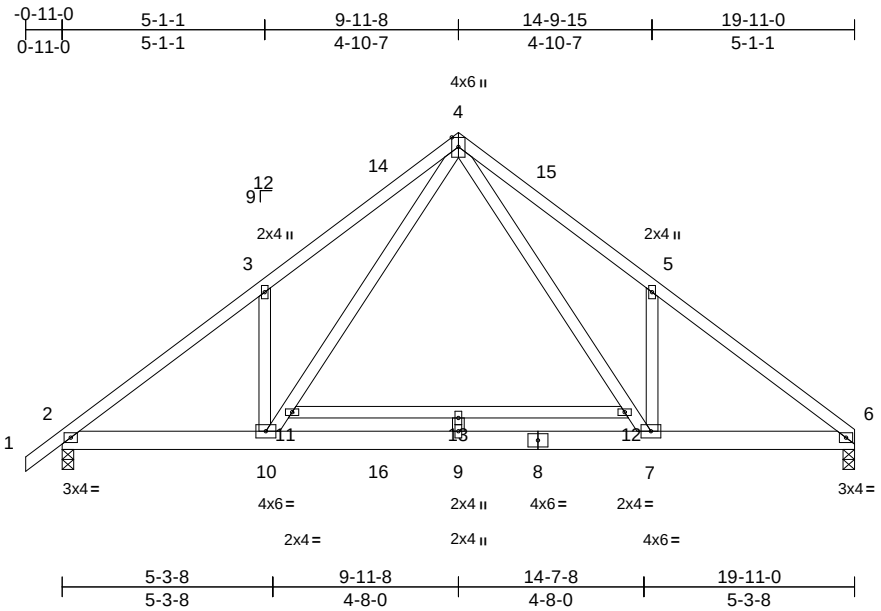

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.07	9	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.16	9	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.05	9	>999	240		
BCDL	10.0										Weight: 135 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-9 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 Horiz 2=182 (LC 9)
Max Uplift 2=-85 (LC 12), 6=-64 (LC 13)
Max Grav 2=917 (LC 2), 6=850 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-3=-1235/84, 3-4=-1214/260, 4-5=-1223/266, 5-6=-1236/84
BOT CHORD 2-10=-101/926, 9-10=0/551, 7-9=0/551, 6-7=-11/905
WEBS 4-12=-192/689, 7-12=-195/682, 10-11=-189/671, 4-11=-186/678, 5-7=-321/244, 3-10=-307/235, 11-13=-3/9, 12-13=-3/9, 9-13=0/34

NOTES (12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 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 3-06-00 tall by 1-00-00 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 64 lb uplift at joint 6 and 85 lb uplift at joint 2.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 10 lb up at 11-11-8, and 67 lb down and 10 lb up at 7-11-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
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
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-40, 4-6=-40, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-50 (F), 16=-50 (F)

March 1,2024

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
3882933	T1AE	Common	1	1	I63943552 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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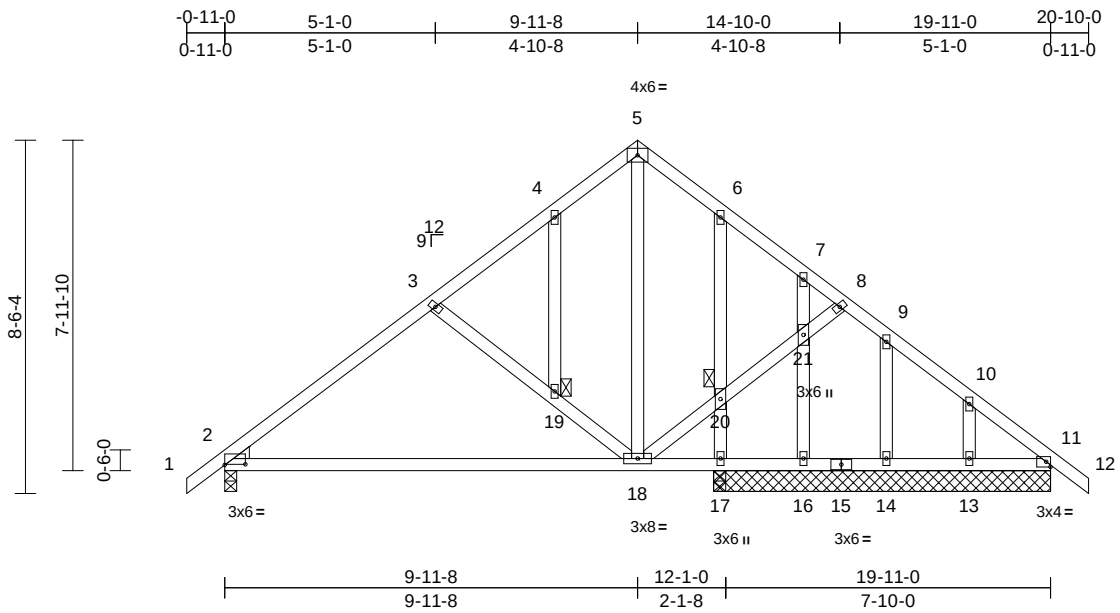

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Plate Offsets (X, Y): [2:0-6-0,0-0-3]

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	0.34	Vert(LL)	-0.23	2-18	>614	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.47	2-18	>299	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	2-18	>999	240		
BCDL	10.0										Weight: 128 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 19, 20

REACTIONS (size) 2=0-3-8, 11=8-1-8, 13=8-1-8, 14=8-1-8, 16=8-1-8, 17=0-3-8
Max Horiz 2=-187 (LC 10)
Max Uplift 2=-45 (LC 12), 13=-87 (LC 13), 14=-8 (LC 12), 17=-134 (LC 13)
Max Grav 2=650 (LC 2), 11=203 (LC 2), 13=148 (LC 27), 14=325 (LC 2), 16=330 (LC 2), 17=81 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/28, 2-3=-672/58, 3-4=-433/24, 4-5=-342/58, 5-6=-373/84, 6-7=-391/54, 7-8=-274/23, 8-9=-219/21, 9-10=-120/6, 10-11=-177/13, 11-12=0/27
BOT CHORD	2-18=-74/562, 17-18=-13/140, 16-17=-13/140, 14-16=-13/140, 13-14=-13/140, 11-13=-13/140
WEBS	5-18=-14/358, 18-20=0/283, 20-21=0/274, 8-21=0/262, 3-19=-287/186, 18-19=-313/206, 4-19=-43/32, 6-20=-128/89, 17-20=-140/88, 7-21=-266/31, 16-21=-284/28, 9-14=-288/26, 10-13=-104/113

NOTES (13)

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
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 3-06-00 tall by 1-00-00 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 45 lb uplift at joint 2, 8 lb uplift at joint 14, 87 lb uplift at joint 13 and 134 lb uplift at joint 17.
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
3882933	T1E	Common Supported Gable	1	1	I63943553 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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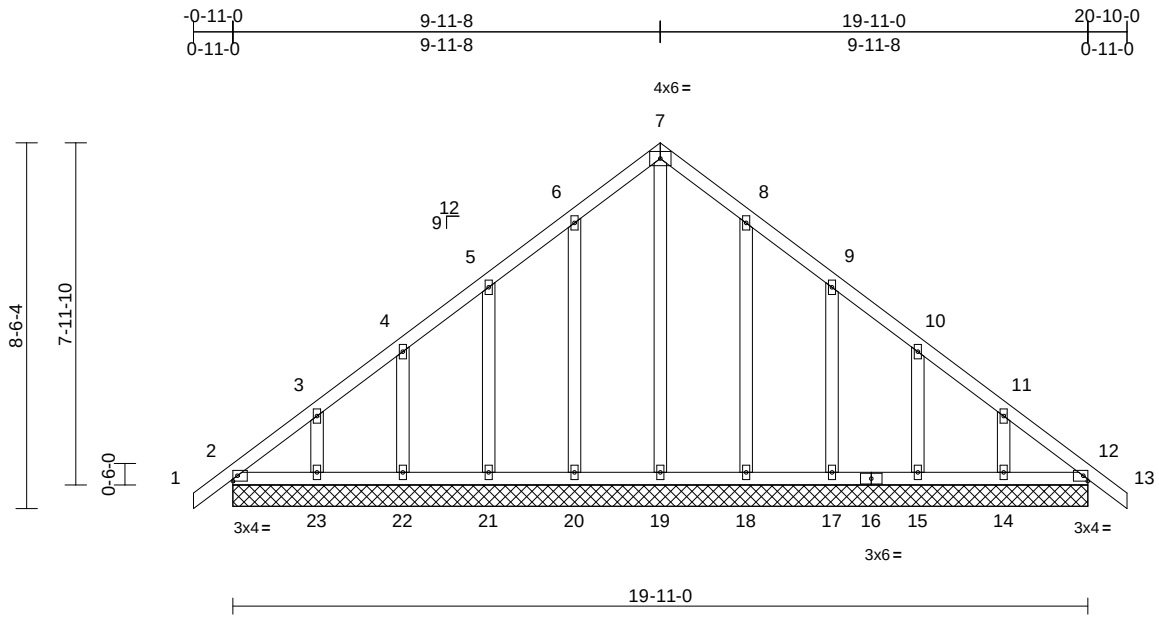

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0										Weight: 125 lb	FT = 20%

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

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

REACTIONS (size) 2=19-11-0, 12=19-11-0, 14=19-11-0, 15=19-11-0, 17=19-11-0, 18=19-11-0, 19=19-11-0, 20=19-11-0, 21=19-11-0, 22=19-11-0, 23=19-11-0
Max Horiz 2=-187 (LC 10)
Max Uplift 2=-42 (LC 8), 12=-4 (LC 9), 14=-74 (LC 13), 15=-63 (LC 13), 17=-66 (LC 13), 18=-61 (LC 13), 20=-63 (LC 12), 21=-65 (LC 12), 22=-63 (LC 12), 23=-77 (LC 12)
Max Grav 2=168 (LC 27), 12=148 (LC 2), 14=175 (LC 27), 15=166 (LC 27), 17=200 (LC 27), 18=241 (LC 27), 19=234 (LC 29), 20=243 (LC 26), 21=199 (LC 26), 22=166 (LC 26), 23=178 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-186/144, 3-4=-125/112, 4-5=-111/94, 5-6=-97/126, 6-7=-84/159, 7-8=-71/148, 8-9=-57/85, 9-10=-67/45, 10-11=-82/52, 11-12=-144/81, 12-13=0/27
BOT CHORD 2-23=-66/150, 22-23=-66/150, 21-22=-66/150, 20-21=-66/150, 19-20=-66/150, 18-19=-66/150, 17-18=-66/150, 15-17=-66/150, 14-15=-66/150, 12-14=-66/150
WEBS 7-19=-140/11, 6-20=-139/87, 5-21=-128/89, 4-22=-131/87, 3-23=-134/101, 8-18=-137/85, 9-17=-129/90, 10-15=-131/87, 11-14=-131/98

NOTES (15)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 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 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 2, 63 lb uplift at joint 20, 65 lb uplift at joint 21, 63 lb uplift at joint 22, 77 lb uplift at joint 23, 61 lb uplift at joint 18, 66 lb uplift at joint 17, 63 lb uplift at joint 15, 74 lb uplift at joint 14 and 4 lb uplift at joint 12.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
14) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
15) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

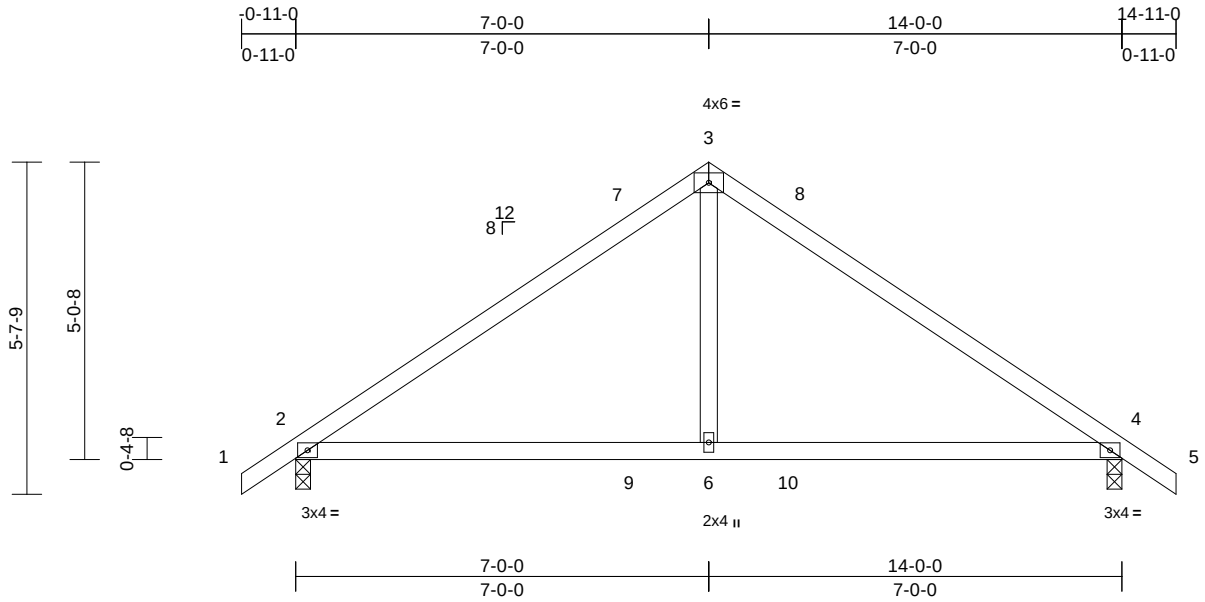
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3882933	T02	Common	5	1	I63943554 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:53:00 ID:FtAygPjkkFONtX4Z?31cqPyPVK4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.05	4-6	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.12	2-6	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.05	2-6	>999	240		
BCDL	10.0										Weight: 56 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 4=0-3-0
Max Horiz 2=-121 (LC 10)
Max Uplift 2=-62 (LC 12), 4=-62 (LC 13)
Max Grav 2=612 (LC 2), 4=613 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-685/75, 3-4=-685/75, 4-5=0/29
BOT CHORD 2-6=0/514, 4-6=0/514
WEBS 3-6=0/337

NOTES (10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 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 3-06-00 tall by 1-00-00 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 62 lb uplift at joint 2 and 62 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

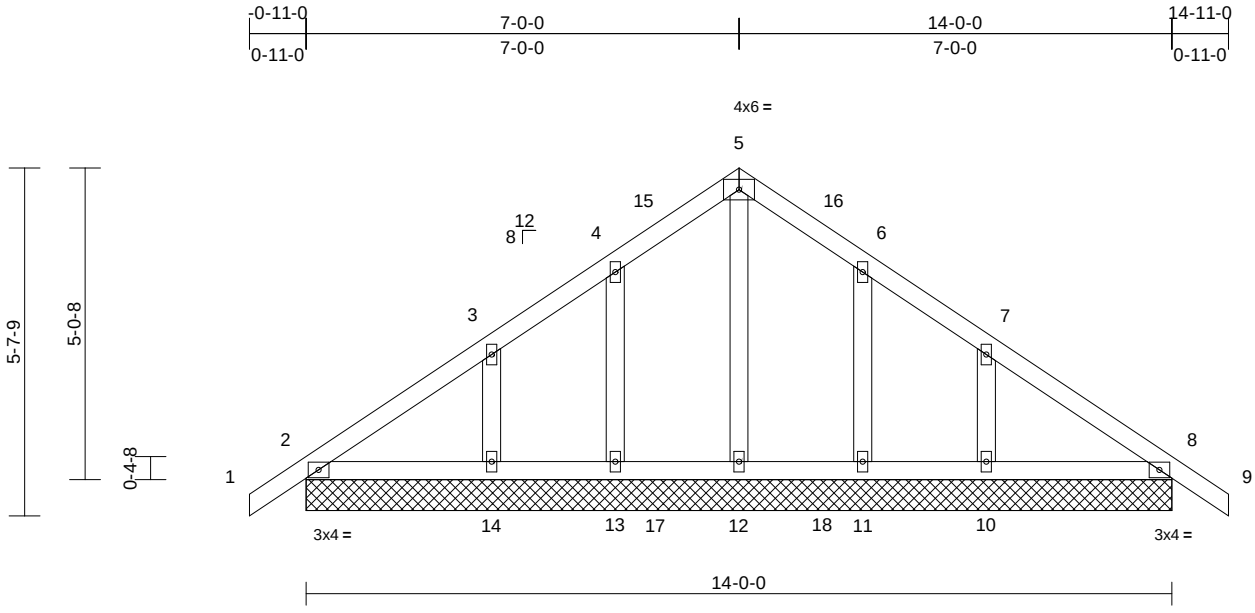
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3882933	T02E	Common Supported Gable	1	1	I63943555 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:53:01 ID:0hBPvy0PrwYqNNVMzp_TKgyPVJh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:37.3

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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0										Weight: 71 lb	FT = 20%

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

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

REACTIONS (size) 2=14-0-0, 8=14-0-0, 10=14-0-0, 11=14-0-0, 12=14-0-0, 13=14-0-0, 14=14-0-0
Max Horiz 2=-121 (LC 10)
Max Uplift 2=-12 (LC 13), 8=-8 (LC 13), 10=-79 (LC 13), 11=-50 (LC 13), 13=-51 (LC 12), 14=-79 (LC 12)
Max Grav 2=175 (LC 2), 8=175 (LC 2), 10=241 (LC 27), 11=160 (LC 27), 12=214 (LC 29), 13=161 (LC 26), 14=241 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-110/87, 3-4=-86/77, 4-5=-69/105, 5-6=-58/95, 6-7=-59/47, 7-8=-80/52, 8-9=0/29
BOT CHORD 2-14=-38/89, 13-14=-38/89, 12-13=-38/89, 11-12=-38/89, 10-11=-38/89, 8-10=-38/89
WEBS 5-12=-108/0, 4-13=-120/73, 3-14=-176/108, 6-11=-119/72, 7-10=-176/108

NOTES (15)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 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 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 2, 8 lb uplift at joint 8, 51 lb uplift at joint 13, 79 lb uplift at joint 14, 50 lb uplift at joint 11 and 79 lb uplift at joint 10.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
14) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
15) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3882933	T2E	Common Supported Gable	1	1	I63943556 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:52:58 Page: 1
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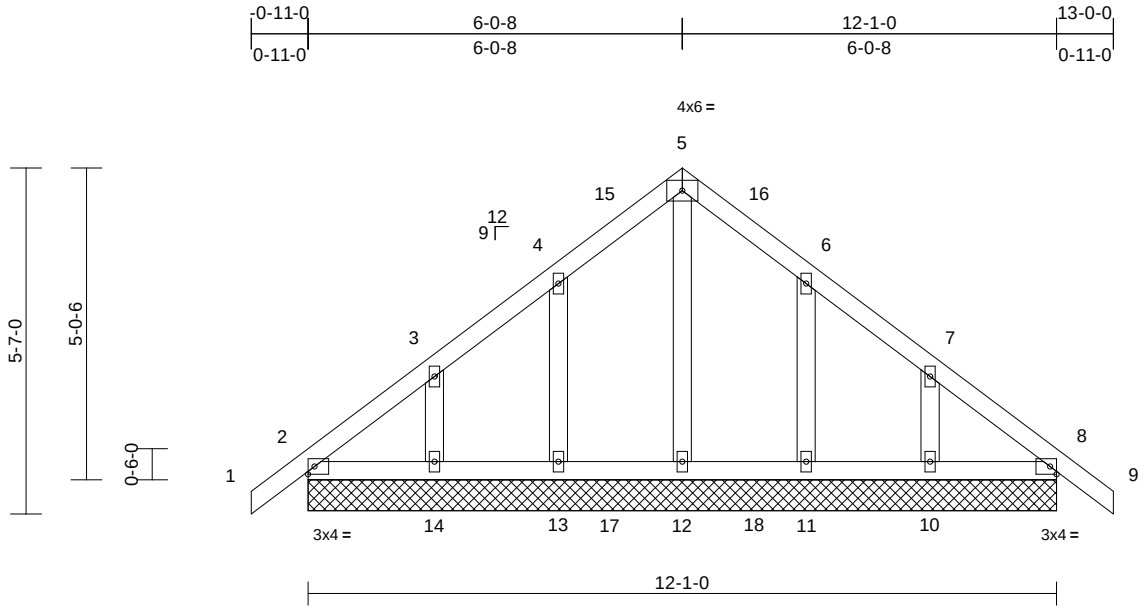

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0										Weight: 64 lb	FT = 20%

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

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

REACTIONS (size) 2=12-1-0, 8=12-1-0, 10=12-1-0, 11=12-1-0, 12=12-1-0, 13=12-1-0, 14=12-1-0
Max Horiz 2=119 (LC 11)
Max Uplift 2=-16 (LC 8), 10=-71 (LC 13), 11=-66 (LC 13), 13=-67 (LC 12), 14=-73 (LC 12)
Max Grav 2=150 (LC 2), 8=150 (LC 2), 10=175 (LC 27), 11=184 (LC 27), 12=198 (LC 29), 13=185 (LC 26), 14=176 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-107/85, 3-4=-87/64, 4-5=-74/100, 5-6=-61/88, 6-7=-59/38, 7-8=-85/46, 8-9=0/27
BOT CHORD 2-14=-40/94, 13-14=-40/94, 12-13=-40/94, 11-12=-40/94, 10-11=-40/94, 8-10=-40/94
WEBS 5-12=-101/0, 4-13=-139/91, 3-14=-133/97, 6-11=-138/90, 7-10=-132/96

NOTES (14)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 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 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2, 67 lb uplift at joint 13, 73 lb uplift at joint 14, 66 lb uplift at joint 11 and 71 lb uplift at joint 10.
13) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3882933	T3	Monopitch	3	1	I63943557 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:52:58 Page: 1
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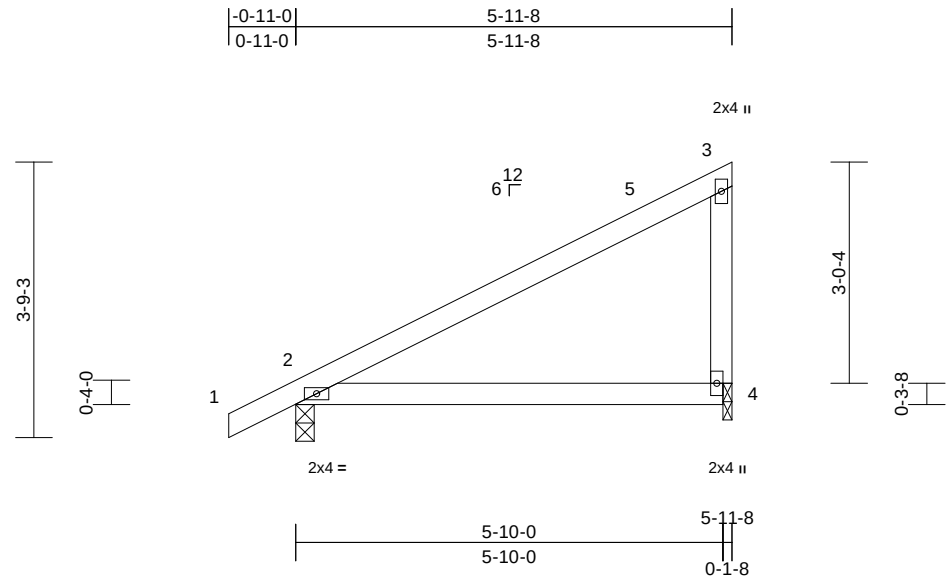

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.06	2-4	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.13	2-4	>544	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 24 lb	FT = 20%

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

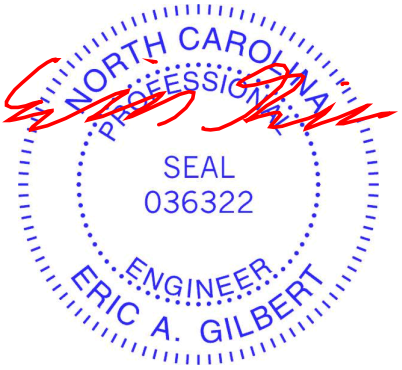
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 4=0-1-8
Max Horiz 2=118 (LC 12)
Max Uplift 2=-28 (LC 12), 4=-58 (LC 12)
Max Grav 2=296 (LC 2), 4=222 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-3=-85/60, 3-4=-165/92
BOT CHORD 2-4=0/0

NOTES (11)
1) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 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 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 2 and 58 lb uplift at joint 4.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard



March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3882933	T3E	Monopitch Supported Gable	1	1	I63943558 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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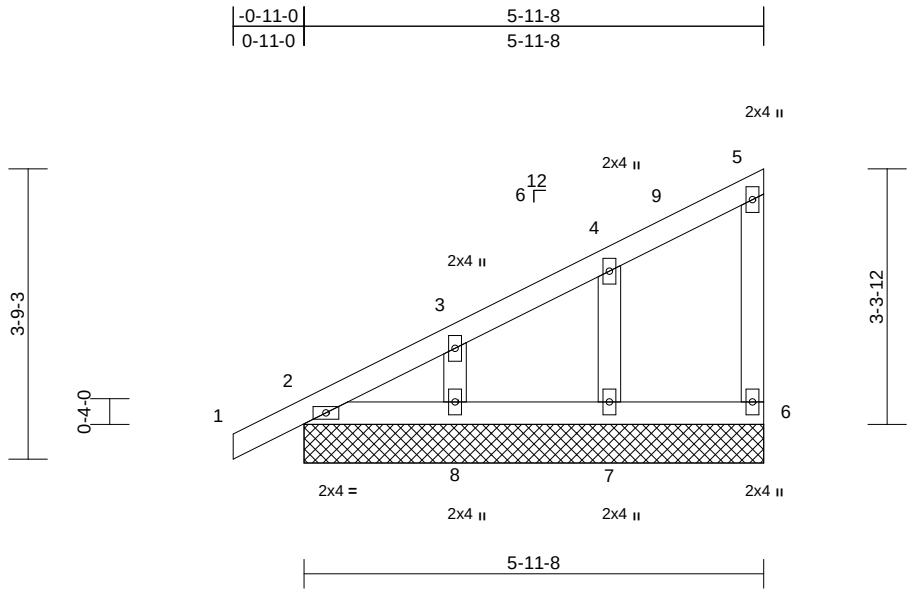

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	n/a	-	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 28 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=5-11-8, 6=5-11-8, 7=5-11-8, 8=5-11-8
Max Horiz 2=118 (LC 12)
Max Uplift 6=-15 (LC 12), 7=-45 (LC 12), 8=-39 (LC 12)
Max Grav 2=133 (LC 2), 6=58 (LC 2), 7=172 (LC 2), 8=156 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/24, 2-3=-103/25, 3-4=-63/28, 4-5=-33/14, 5-6=-43/24
BOT CHORD	2-8=0/0, 7-8=0/0, 6-7=0/0
WEBS	4-7=-130/70, 3-8=-112/65

NOTES (12)

1) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 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 3-06-00 tall by 1-00-00 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 15 lb uplift at joint 6, 45 lb uplift at joint 7 and 39 lb uplift at joint 8.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

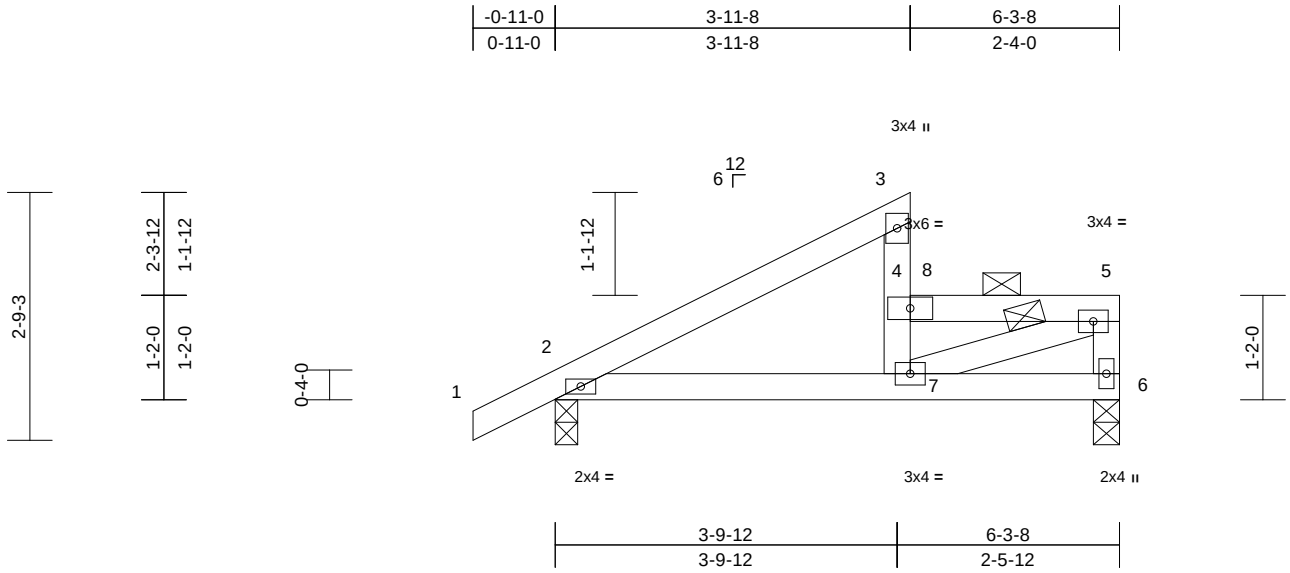
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3882933	T4	Half Hip	6	1	I63943559 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:52:59 ID:hmw8HTJKTLXyD6R7WHcyDMzAcoJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:25.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.01	2-7	>999	360	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.04	2-7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.01	2-7	>999	240		
BCDL	10.0										Weight: 28 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 6=0-3-8
Max Horiz 2=120 (LC 12)
Max Grav 2=388 (LC 33), 6=446 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-3=-375/0, 4-7=-172/0, 3-4=0/105, 4-5=-622/0, 5-6=-410/0
BOT CHORD 2-7=0/306, 6-7=0/87
WEBS 5-7=0/571

NOTES (12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Load case(s) 1, 3 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-40, 4-8=-50, 5-8=-80, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-135
3) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-50, 4-8=-50, 5-8=-140, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-135

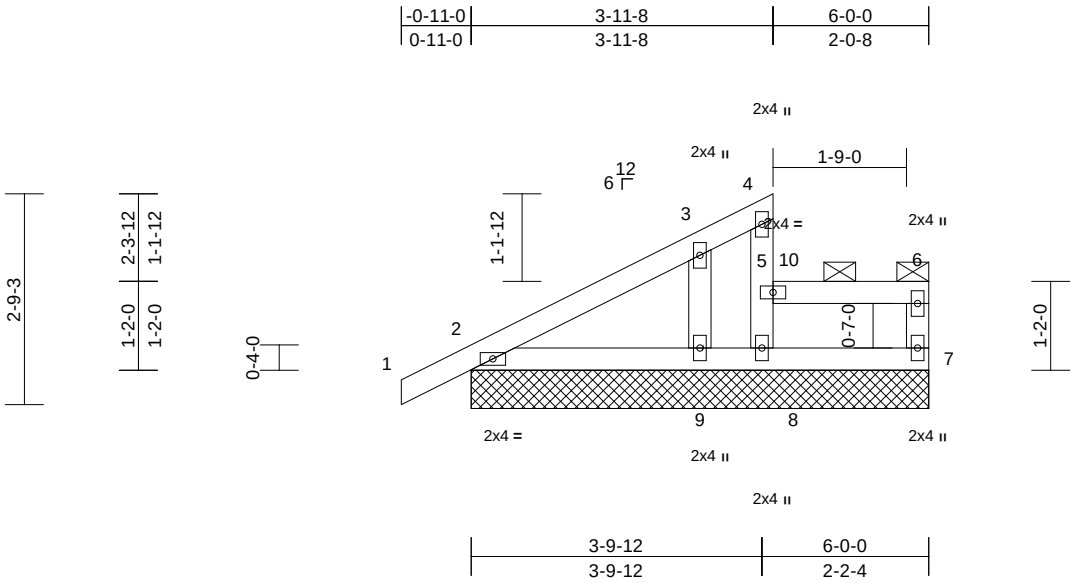
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3882933	T4E	Half Hip Supported Gable	1	1	I63943560 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:53:00 ID:NqxujFArEDNJkiceE7HJxizAc5J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.2

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0										Weight: 26 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-8, 5-6.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=6-0-0, 7=6-0-0, 8=6-0-0, 9=6-0-0
Max Horiz 2=104 (LC 12)
Max Uplift 2=-9 (LC 12), 9=-55 (LC 12)
Max Grav 2=183 (LC 32), 7=107 (LC 31), 8=185 (LC 31), 9=277 (LC 32)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/28, 2-3=-62/62, 3-4=-36/22, 5-8=-180/0, 4-5=-9/29, 5-6=-24/0, 6-7=-89/6
BOT CHORD	2-9=-19/2, 8-9=-19/2, 7-8=0/24
WEBS	3-9=-202/87

NOTES (17)

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=10.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 10.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 2 and 55 lb uplift at joint 9.
14) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
15) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
17) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

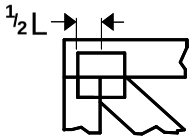
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-4=-40, 5-6=-50, 2-7=-20
   Concentrated Loads (lb)
   Vert: 10=-135

March 1,2024

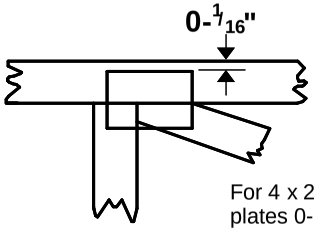
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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.

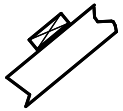
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

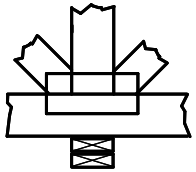
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

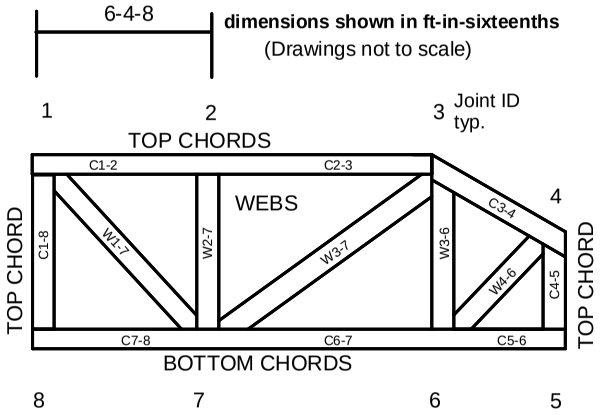


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

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.
21. The design does not take into account any dynamic or other loads other than those expressly stated.