ENGINEERING BY TRENCO
A MiTek Affiliate

RE: 22040112
DRB GROUP - 93 FaNC

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: 22040112
Lot/Block: Model:
Address: Subdivision:
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 8.5
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 17 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I50287558	A01	2/17/2022
2	I50287559	A02	2/17/2022
3	I50287560	A03	2/17/2022
4	I50287561	A04	2/17/2022
5	I50287562	B01	2/17/2022
6	I50287563	B02	2/17/2022
7	I50287564	C01	2/17/2022
8	I50287565	C02	2/17/2022
9	I50287566	M01	2/17/2022
10	I50287567	M02	2/17/2022
11	I50287568	PB1	2/17/2022
12	I50287569	PB2	2/17/2022
13	I50287570	PB3	2/17/2022
14	I50287571	V1	2/17/2022
15	I50287572	V2	2/17/2022
16	I50287573	V3	2/17/2022
17	I50287574	V4	2/17/2022

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

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of North Carolina is December 31, 2022.

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.

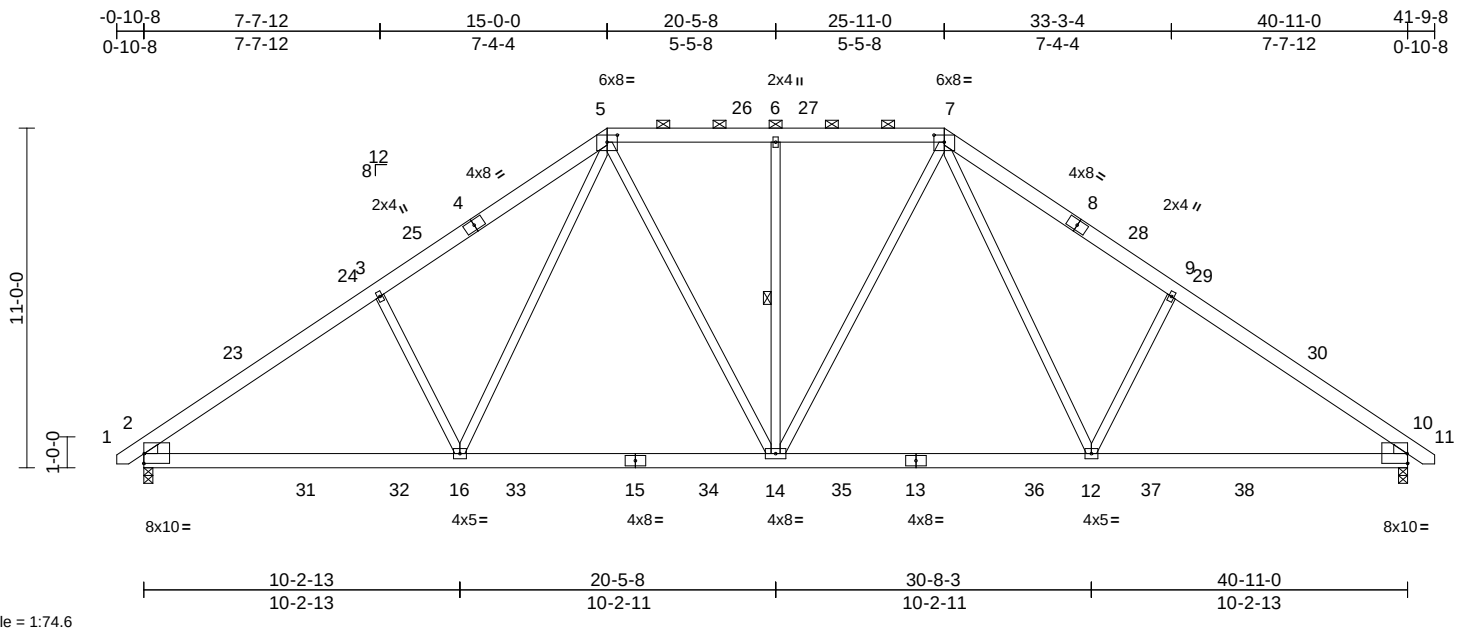
February 17, 2022

Sevier, Scott

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	A01	Piggyback Base	2	1	Job Reference (optional)	I50287558

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:08 Page: 1
ID:sKQsrFmzhKldS3ROH4IW00yEKdi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:74.6

Plate Offsets (X, Y): [2:Edge,0-3-13], [5:0-4-0,0-2-12], [7:0-4-0,0-2-12], [10:Edge,0-3-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.18	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.30	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.09	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 311 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except* 16-3,12-9:2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

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

REACTIONS (lb/size) 2=1678/0-3-8, 10=1678/0-3-8
Max Horiz 2=247 (LC 13)
Max Uplift 2=-170 (LC 14), 10=-170 (LC 15)
Max Grav 2=1980 (LC 45), 10=1980 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-2803/262, 3-5=-2656/349, 5-6=-1916/313, 6-7=-1916/313, 7-9=-2656/349, 9-10=-2803/262, 10-11=0/23
BOT CHORD 2-16=-259/2322, 14-16=-77/1748, 12-14=-11/1748, 10-12=-98/2238
WEBS 5-16=-143/907, 3-16=-501/279, 5-14=-134/545, 6-14=-546/159, 7-14=-134/545, 7-12=-144/908, 9-12=-501/279

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-3 to 3-4-15, Interior (1) 3-4-15 to 9-2-9, Exterior(2R) 9-2-9 to 31-8-7, Interior (1) 31-8-7 to 37-6-1, Exterior(2E) 37-6-1 to 41-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 20.0 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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
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.

LOAD CASE(S) Standard

February 17,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	A02	Piggyback Base	7	1	Job Reference (optional)	I50287559

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:10 Page: 1
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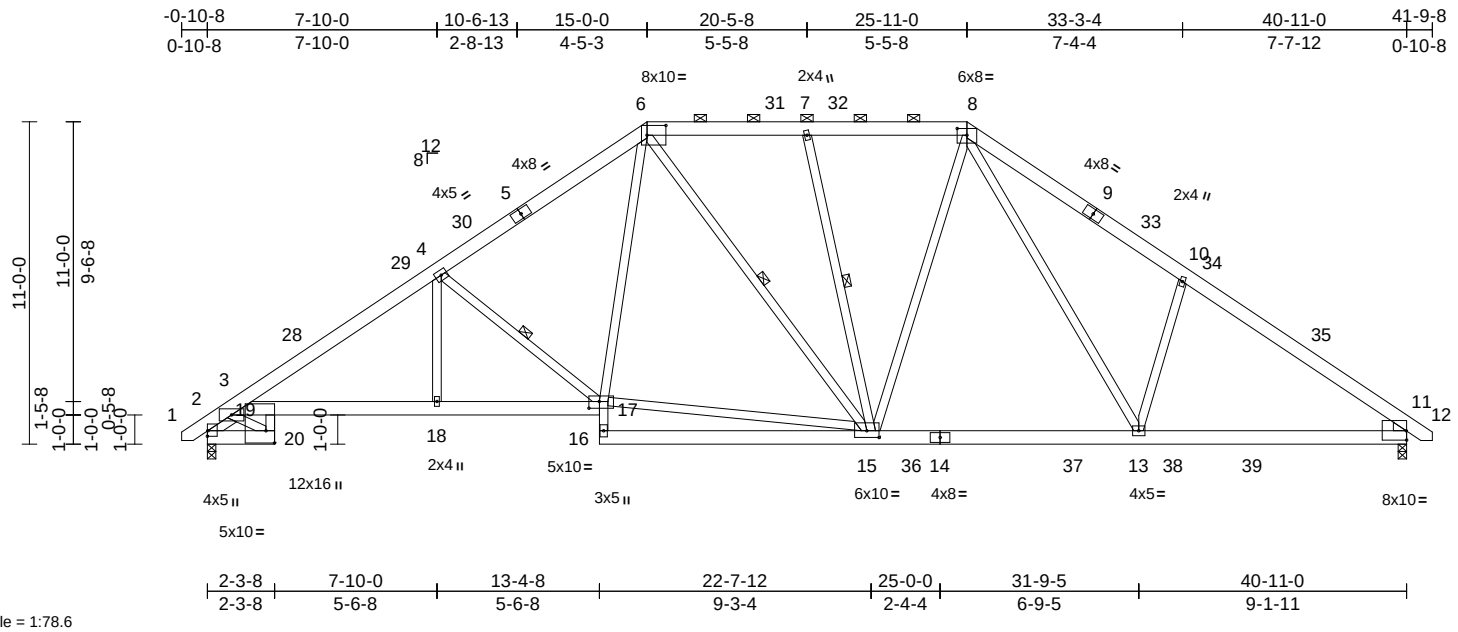

Scale = 1:78.6

Plate Offsets (X, Y): [2:Edge,0-0-3], [6:0-7-12,0-4-0], [8:0-4-0,0-2-12], [11:Edge,0-3-13], [15:0-5-0,0-2-12], [17:0-4-4,0-2-12], [19:Edge,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.18	13-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.29	13-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.18	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 339 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 20-19,17-16:2x4 SP No.3, 3-17:2x6 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 15-7,15-8,15-6,13-8:2x4 SP No.2
WEDGE Right: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 0-11-13

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-8 oc purlins, except 2-0-0 oc purlins (5-2-3 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 19-20.
WEBS 1 Row at midpt 4-17, 7-15, 6-15

REACTIONS (lb/size) 2=1681/0-3-8, 11=1672/0-3-8
Max Horiz 2=247 (LC 13)
Max Uplift 2=-171 (LC 14), 11=-170 (LC 15)
Max Grav 2=1887 (LC 45), 11=1921 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-3=-1100/87, 3-4=-3149/316, 4-6=-2459/310, 6-7=-1846/326, 7-8=-1773/304, 8-10=-2642/396, 10-11=-2720/256, 11-12=0/23
BOT CHORD 2-20=-235/1143, 19-20=-231/1218, 3-19=-278/2648, 18-19=-300/2711, 17-18=-300/2711, 16-17=0/157, 15-16=0/257, 13-15=-8/1671, 11-13=-92/2168
WEBS 6-17=-97/996, 4-17=-1058/268, 4-18=0/505, 7-15=-567/163, 8-15=-103/522, 6-15=-205/331, 15-17=-84/1516, 8-13=-204/941, 10-13=-522/292, 3-20=-1385/286

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-3 to 3-4-15, Interior (1) 3-4-15 to 9-2-9, Exterior(2R) 9-2-9 to 31-8-7, Interior (1) 31-8-7 to 37-6-1, Exterior(2E) 37-6-1 to 41-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 20.0 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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 11. This connection is for uplift only and does not consider lateral forces.
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.

LOAD CASE(S) Standard

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	I50287560
22040112	A03	Piggyback Base	1	1	Job Reference (optional)	

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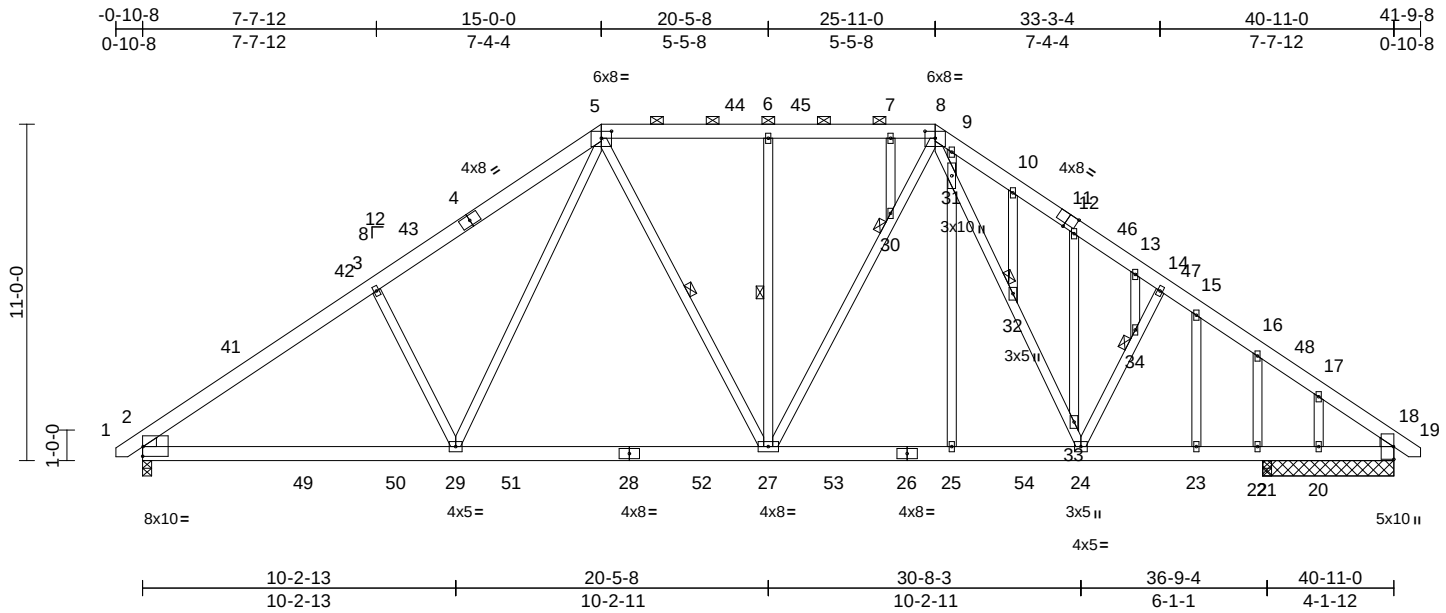

Scale = 1:75.3

Plate Offsets (X, Y): [2:Edge,0-3-13], [5:0-4-0,0-2-12], [8:0-4-0,0-2-12], [11:0-3-15,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	0.61	Vert(LL)	-0.19	27-29	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.31	27-29	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.08	18	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 362 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except* 29-3,24-14:2x4 SP No.3
OTHERS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except
2-0-0 oc purlins (5-3-15 max.): 5-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-27, 6-27
JOINTS 1 Brace at Jt(s): 30, 32, 34

REACTIONS (lb/size) 2=1612/0-3-8, 18=1426/4-3-8, 20=-814/4-3-8, 21=1131/0-3-8, 38=1426/4-3-8
Max Horiz 2=247 (LC 13)
Max Uplift 2=-166 (LC 14), 18=-30 (LC 15), 20=-1004 (LC 45), 21=-119 (LC 15), 38=-30 (LC 15)
Max Grav 2=1898 (LC 45), 18=1685 (LC 45), 20=4 (LC 14), 21=1337 (LC 45), 38=1685 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-2671/254, 3-5=-2525/342, 5-6=-1765/301, 6-7=-1765/301, 7-8=-1765/301, 8-9=-1951/362, 9-10=-2090/327, 10-12=-2211/322, 12-13=-2051/233, 13-14=-2052/213, 14-15=-2141/211, 15-16=-2072/176, 16-17=-1864/131, 17-18=-2069/94, 18-19=0/23
BOT CHORD 2-29=-253/2224, 27-29=-89/1627, 25-27=0/1571, 24-25=0/1571, 23-24=-23/1627, 22-23=-23/1627, 21-22=-23/1627, 20-21=-23/1627, 18-20=-23/1627
WEBS 5-29=-141/935, 3-29=-503/280, 5-27=-136/454, 6-27=-516/159, 27-30=-126/500, 8-30=-140/538, 8-31=-178/643, 31-32=-152/497, 32-33=-168/569, 24-33=-87/125, 24-34=-37/300, 14-34=-29/328, 7-30=-46/16, 9-31=-42/174, 25-31=0/236, 10-32=-18/79, 12-33=-482/141, 13-34=-70/17, 15-23=-228/50, 16-22=-487/101, 17-20=-14/292

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-3 to 3-4-15, Interior (1) 3-4-15 to 9-2-9, Exterior(2R) 9-2-9 to 31-8-7, Interior (1) 31-8-7 to 37-6-1, Exterior(2E) 37-6-1 to 41-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

February 17,2022

Continued on page 2

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4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 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 2-00-00 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 1004 lb uplift at joint 20.
13) N/A

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.
16) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC
22040112	A04	Piggyback Base Supported Gable	1	1	I50287561 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:12 Page: 1
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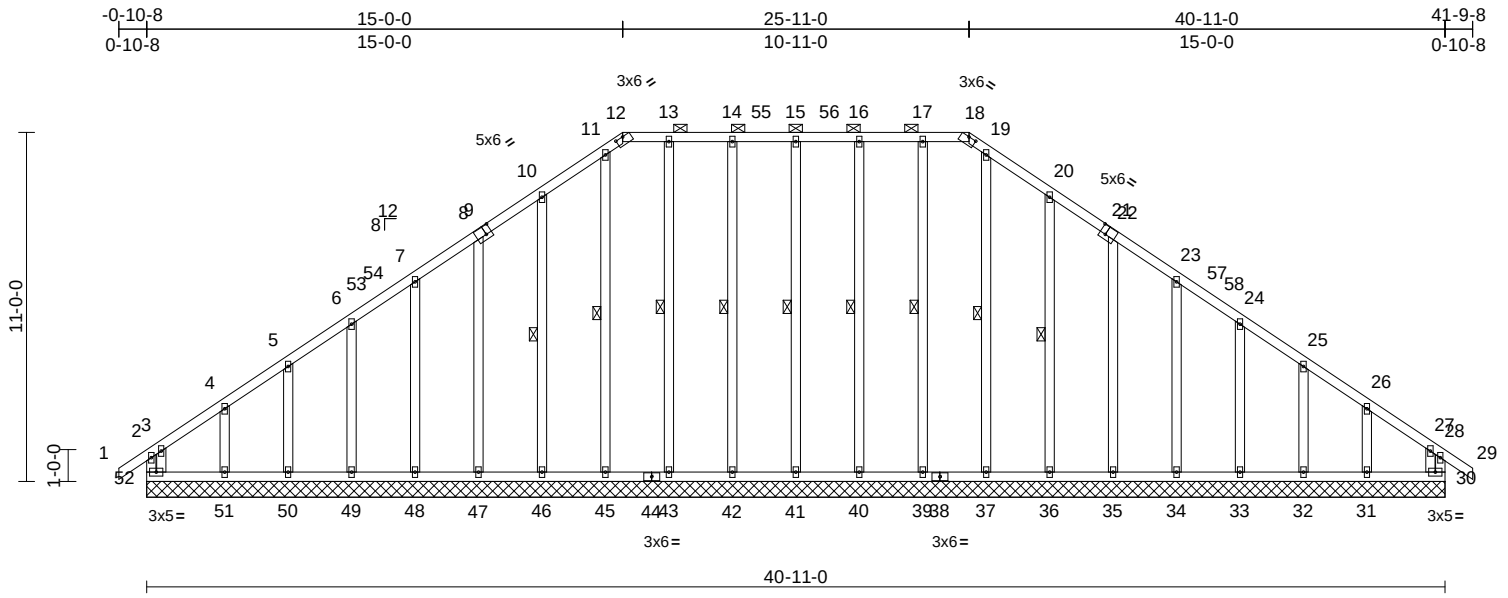

Scale = 1:72.6

Plate Offsets (X, Y): [9:0-2-4,0-3-4], [12:0-3-0,0-0-2], [18:0-3-0,0-0-2], [21:0-2-4,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	30	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 343 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 *Except* 41-15,42-14,43-13,45-11,40-16,39-17,37-19: 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.): 12-18.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 15-41, 14-42, 13-43, 11-45, 10-46, 16-40, 17-39, 19-37, 20-36

REACTIONS (lb/size) 30=169/40-11-0, 31=169/40-11-0, 32=157/40-11-0, 33=161/40-11-0, 34=160/40-11-0, 35=160/40-11-0, 36=161/40-11-0, 37=152/40-11-0, 39=157/40-11-0, 40=161/40-11-0, 41=160/40-11-0, 42=161/40-11-0, 43=157/40-11-0, 45=152/40-11-0, 46=161/40-11-0, 47=160/40-11-0, 48=160/40-11-0, 49=161/40-11-0, 50=157/40-11-0, 51=169/40-11-0, 52=169/40-11-0
Max Horiz 52=-276 (LC 12)
Max Uplift 30=-51 (LC 11), 31=-141 (LC 15), 32=-34 (LC 15), 33=-64 (LC 15), 34=-57 (LC 15), 35=-56 (LC 15), 36=-78 (LC 15), 39=-14 (LC 11), 40=-31 (LC 10), 41=-25 (LC 11), 42=-31 (LC 10), 43=-15 (LC 11), 46=-76 (LC 14), 47=-56 (LC 14), 48=-57 (LC 14), 49=-65 (LC 14), 50=-29 (LC 14), 51=-157 (LC 14), 52=-108 (LC 10)
Max Grav 30=192 (LC 24), 31=228 (LC 49), 32=158 (LC 22), 33=176 (LC 43), 34=230 (LC 43), 35=230 (LC 43), 36=237 (LC 43), 37=191 (LC 43), 39=221 (LC 38), 40=227 (LC 38), 41=225 (LC 38), 42=227 (LC 38), 43=221 (LC 38), 45=202 (LC 53), 46=237 (LC 41), 47=230 (LC 41), 48=230 (LC 41), 49=177 (LC 47), 50=158 (LC 21), 51=251 (LC 47), 52=236 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-52=-179/165, 1-2=0/34, 2-3=-25/55, 3-4=-208/196, 4-5=-151/142, 5-6=-144/146, 6-7=-125/164, 7-8=-125/197, 8-10=-157/241, 10-11=-196/307, 11-12=-172/261, 12-13=-169/279, 13-14=-169/279, 14-15=-169/279, 15-16=-169/279, 16-17=-169/279, 17-18=-169/279, 18-19=-172/261, 19-20=-196/307, 20-22=-157/241, 22-23=-125/187, 23-24=-94/131, 24-25=-88/97, 25-26=-94/82, 26-27=-148/123, 27-28=-26/55, 28-29=0/34, 28-30=-152/165
BOT CHORD 51-52=-113/140, 50-51=-113/140, 49-50=-113/140, 48-49=-113/140, 47-48=-113/140, 46-47=-113/140, 45-46=-113/140, 43-45=-113/140, 42-43=-113/140, 41-42=-113/140, 40-41=-113/140, 39-40=-113/140, 37-39=-113/140, 36-37=-113/140, 35-36=-113/140, 34-35=-113/140, 33-34=-113/140, 32-33=-113/140, 31-32=-113/140, 30-31=-113/140
WEBS 15-41=-185/49, 14-42=-187/60, 13-43=-181/39, 11-45=-162/20, 10-46=-197/100, 8-47=-190/80, 7-48=-190/81, 6-49=-136/86, 5-50=-120/65, 4-51=-181/153, 3-52=-289/250, 16-40=-187/60, 17-39=-181/38, 19-37=-151/7, 20-36=-197/102, 22-35=-190/80, 23-34=-190/81, 24-33=-136/86, 25-32=-120/65, 26-31=-165/143, 27-30=-211/158

NOTES

February 17,2022

Continued on page 2

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

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 3-2-10, Exterior (2N) 3-2-10 to 10-10-14, Corner(3R) 10-10-14 to 19-1-2, Exterior(2N) 19-1-2 to 21-9-14, Corner(3R) 21-9-14 to 30-0-2, Exterior(2N) 30-0-2 to 37-8-6, Corner(3E) 37-8-6 to 41-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * 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 2-00-00 wide will fit between the bottom chord and any other members.
14) N/A
15) 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.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC
22040112	B01	Piggyback Base	7	1	I50287562 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:13 Page: 1
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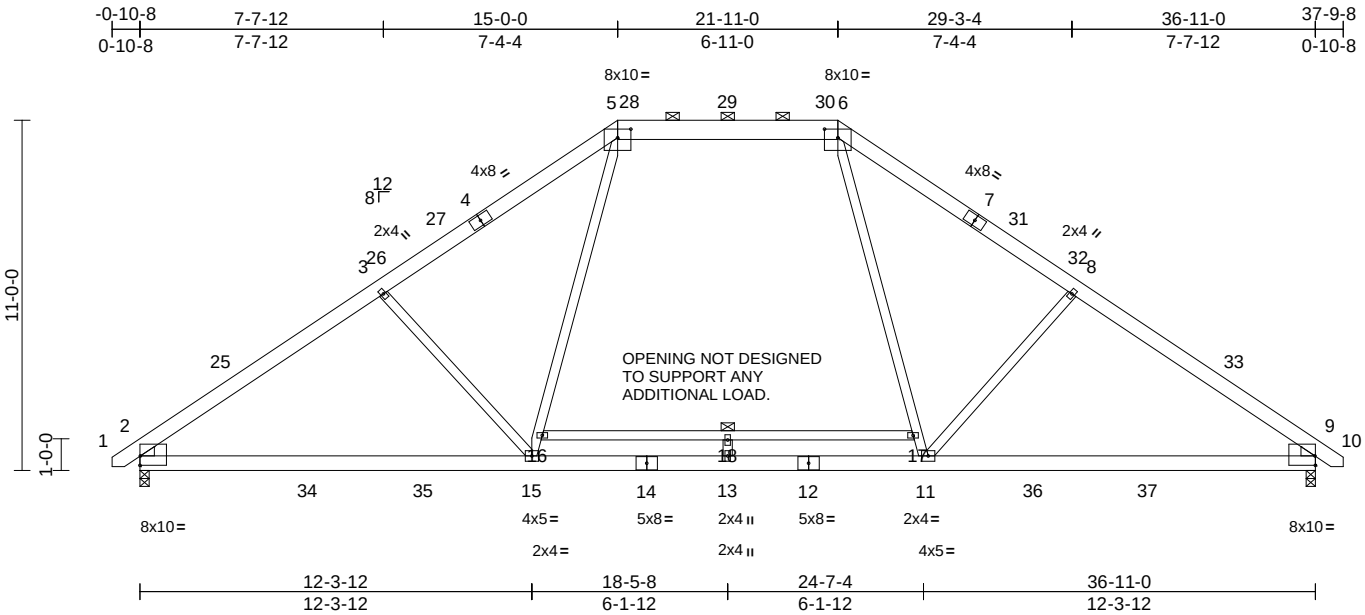

Scale = 1:72.4

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

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	0.75	Vert(LL)	-0.37	15-21	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.47	13-15	>943	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.07	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 268 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 5-6:2x8 SP 2400F 2.0E
BOT CHORD 2x6 SP 2400F 2.0E *Except* 14-12:2x6 SP No.2
WEBS 2x4 SP No.2 *Except* 15-3,11-8,18-13:2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-2 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 16-17

REACTIONS (lb/size) 2=1618/0-3-8, 9=1618/0-3-8
Max Horiz 2=-245 (LC 12)
Max Uplift 2=-51 (LC 14), 9=-51 (LC 15)
Max Grav 2=1874 (LC 47), 9=1874 (LC 49)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-2598/43, 3-5=-2353/52, 5-6=-1608/138, 6-8=-2357/52, 8-9=-2600/42, 9-10=0/23
BOT CHORD 2-15=-156/2199, 13-15=0/1625, 11-13=0/1625, 9-11=0/2077
WEBS 15-16=0/930, 5-16=0/949, 3-15=-543/335, 6-17=0/950, 11-17=0/932, 8-11=-542/336, 16-18=-15/0, 17-18=-15/0, 13-18=0/33

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-3 to 3-0-2, Interior (1) 3-0-2 to 9-9-6, Exterior(2R) 9-9-6 to 27-1-10, Interior (1) 27-1-10 to 33-10-14, Exterior(2E) 33-10-14 to 37-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 20.0 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 18-5-8 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
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.

LOAD CASE(S) Standard

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC
22040112	B02	Piggyback Base Supported Gable	1	1	I50287563 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:13 Page: 1
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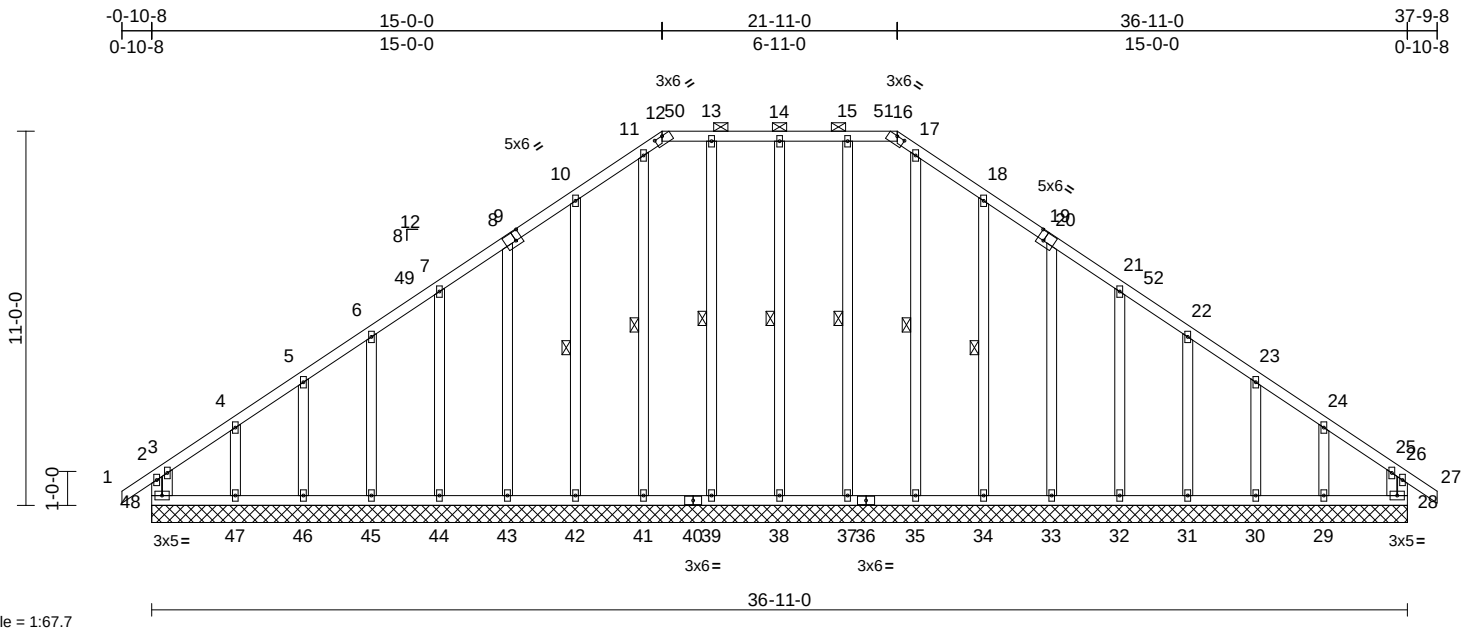

Scale = 1:67.7

Plate Offsets (X, Y): [9:0-2-4,0-3-4], [12:0-3-0,0-0-2], [16:0-3-0,0-0-2], [19:0-2-4,0-3-4]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	28	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 300 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 *Except* 38-14,39-13,41-11,37-15,35-17:2x4 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.): 12-16.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 14-38, 13-39, 11-41, 10-42, 15-37, 17-35, 18-34

REACTIONS (lb/size) 28=164/36-11-0, 29=163/36-11-0, 30=153/36-11-0, 31=156/36-11-0, 32=155/36-11-0, 33=155/36-11-0, 34=156/36-11-0, 35=147/36-11-0, 37=152/36-11-0, 38=156/36-11-0, 39=152/36-11-0, 41=147/36-11-0, 42=156/36-11-0, 43=155/36-11-0, 44=155/36-11-0, 45=156/36-11-0, 46=153/36-11-0, 47=163/36-11-0, 48=164/36-11-0

Max Horiz 48=-267 (LC 12)

Max Uplift 28=-52 (LC 11), 29=-135 (LC 15), 30=-33 (LC 15), 31=-62 (LC 15), 32=-55 (LC 15), 33=-54 (LC 15), 34=-76 (LC 15), 37=-13 (LC 11), 38=-35 (LC 10), 39=-14 (LC 11), 42=-74 (LC 14), 43=-54 (LC 14), 44=-55 (LC 14), 45=-63 (LC 14), 46=-29 (LC 14), 47=-150 (LC 14), 48=-103 (LC 10)

Max Grav 28=188 (LC 24), 29=222 (LC 49), 30=153 (LC 22), 31=167 (LC 25), 32=204 (LC 39), 33=220 (LC 39), 34=224 (LC 39), 35=185 (LC 51), 37=214 (LC 38), 38=222 (LC 38), 39=214 (LC 38), 41=196 (LC 53), 42=224 (LC 39), 43=220 (LC 39), 44=204 (LC 39), 45=169 (LC 24), 46=153 (LC 21), 47=242 (LC 47), 48=228 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-48=-173/158, 1-2=0/33, 2-3=-24/53, 3-4=-198/187, 4-5=-145/136, 5-6=-138/141, 6-7=-120/161, 7-8=-125/194, 8-10=-155/237, 10-11=-193/301, 11-12=-169/256, 12-13=-167/273, 13-14=-167/273, 14-15=-167/273, 15-16=-167/273, 16-17=-169/256, 17-18=-193/301, 18-20=-155/237, 20-21=-125/184, 21-22=-94/131, 22-23=-87/98, 23-24=-90/83, 24-25=-141/121, 25-26=-25/53, 26-27=0/33, 26-28=-147/158

BOT CHORD 47-48=-111/133, 46-47=-111/133, 45-46=-111/133, 44-45=-111/133, 43-44=-111/133, 42-43=-111/133, 41-42=-111/133, 39-41=-111/133, 38-39=-111/133, 37-38=-111/133, 35-37=-111/133, 34-35=-111/133, 33-34=-111/133, 32-33=-111/133, 31-32=-111/133, 30-31=-111/133, 29-30=-111/133, 28-29=-111/133

WEBS 14-38=-183/72, 13-39=-175/37, 11-41=-157/19, 10-42=-186/97, 8-43=-182/78, 7-44=-165/79, 6-45=-128/84, 5-46=-116/64, 4-47=-174/147, 3-48=-276/239, 15-37=-175/36, 17-35=-147/8, 18-34=-186/99, 20-33=-182/77, 21-32=-165/79, 22-31=-127/83, 23-30=-116/64, 24-29=-160/137, 25-28=-201/155

NOTES

1) Unbalanced roof live loads have been considered for this design.

February 17,2022

Continued on page 2

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

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-9-13, Exterior (2N) 2-9-13 to 11-3-11, Corner(3R) 11-3-11 to 25-7-5, Exterior(2N) 25-7-5 to 34-1-3, Corner(3E) 34-1-3 to 37-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * 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 2-00-00 wide will fit between the bottom chord and any other members.
14) N/A
15) 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.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	C01	Common	4	1	Job Reference (optional)	I50287564

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:14 Page: 1
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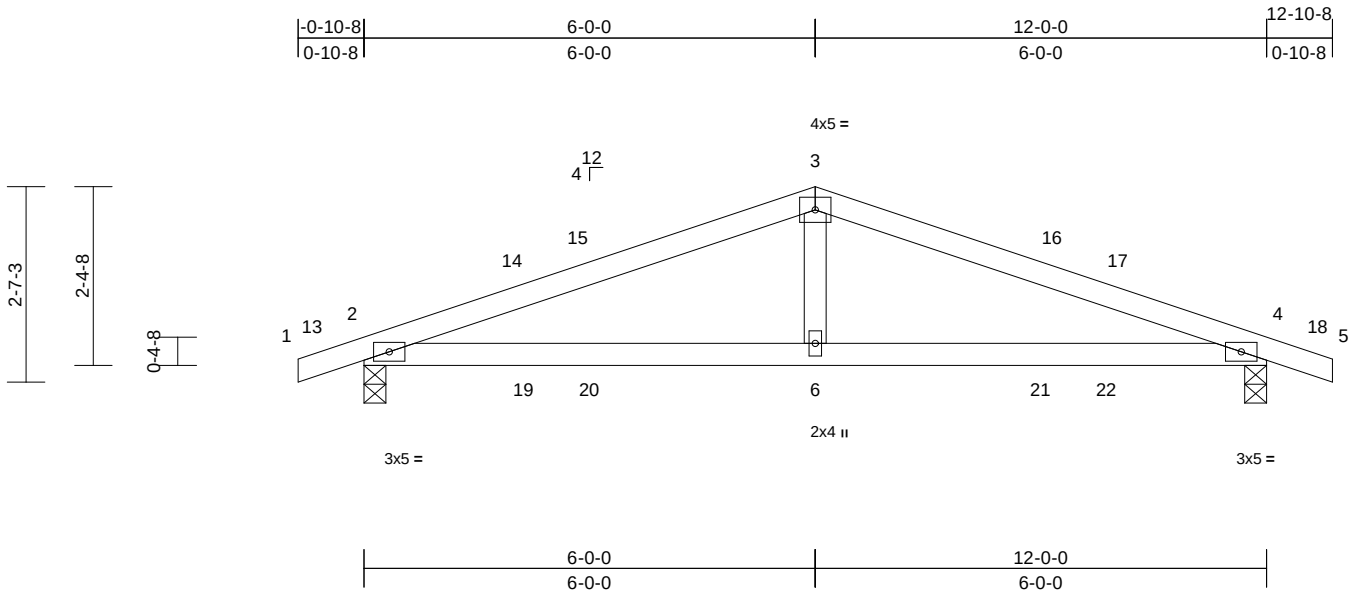

Scale = 1:30.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	0.11	6-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.12	6-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 42 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 4-6-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-2-14 oc bracing.

REACTIONS (lb/size) 2=532/0-3-8, 4=532/0-3-8
Max Horiz 2=-36 (LC 15)
Max Uplift 2=-195 (LC 10), 4=-195 (LC 11)
Max Grav 2=638 (LC 21), 4=638 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-914/1256, 3-4=-914/1256, 4-5=0/21
BOT CHORD 2-6=-1099/798, 4-6=-1099/798
WEBS 3-6=-474/271

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-0-0, Exterior(2R) 3-0-0 to 9-0-0, Interior (1) 9-0-0 to 9-10-8, Exterior(2E) 9-10-8 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
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.

LOAD CASE(S) Standard

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	C02	Common Supported Gable	1	1	Job Reference (optional)	I50287565

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:14
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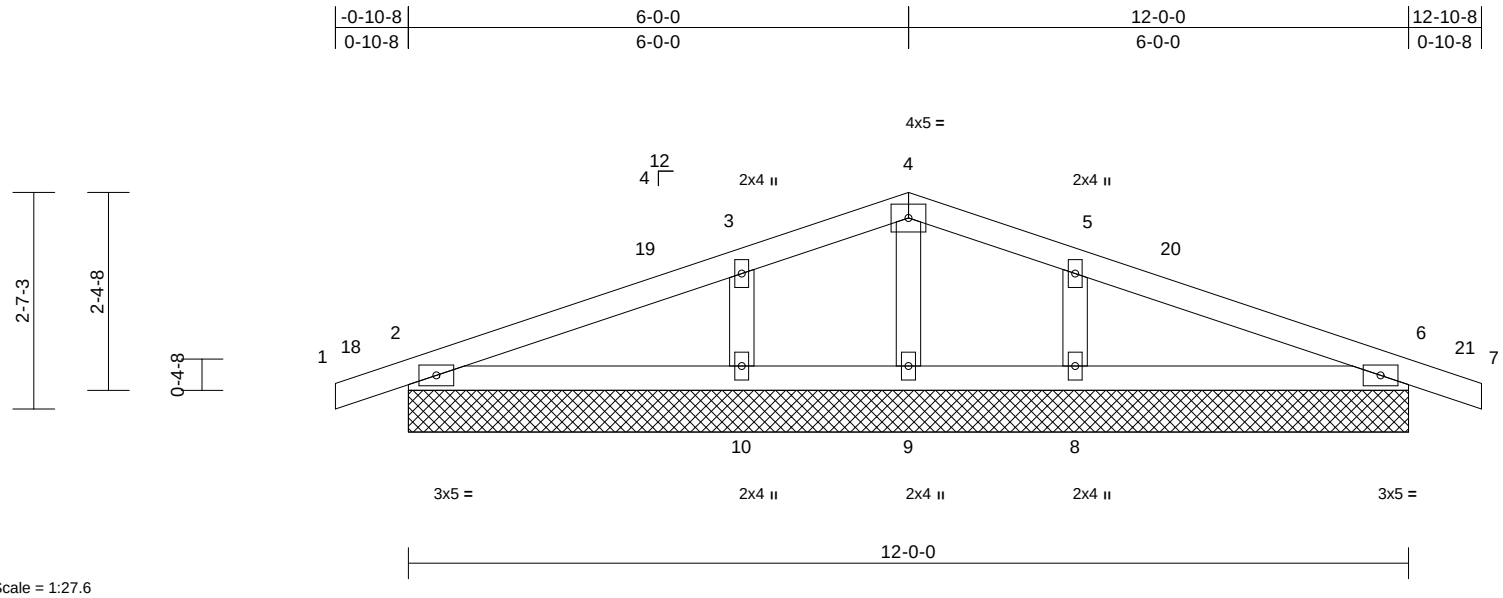
Page: 1



Scale = 1:27.6

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 46 lb	FT = 20%

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

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

REACTIONS (lb/size) 2=199/12-0-0, 6=199/12-0-0, 8=314/12-0-0, 9=6/12-0-0, 10=314/12-0-0, 11=199/12-0-0, 15=199/12-0-0
Max Horiz 2=-35 (LC 15), 11=-35 (LC 15)
Max Uplift 2=-53 (LC 10), 6=-58 (LC 11), 8=-64 (LC 15), 10=-65 (LC 14), 11=-53 (LC 10), 15=-58 (LC 11)
Max Grav 2=261 (LC 21), 6=261 (LC 22), 8=428 (LC 22), 9=31 (LC 15), 10=428 (LC 21), 11=261 (LC 21), 15=261 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-71/49, 3-4=-87/123, 4-5=-87/123, 5-6=-71/49, 6-7=0/21
BOT CHORD 2-10=-5/56, 9-10=0/47, 8-9=0/47, 6-8=0/56
WEBS 4-9=-22/19, 3-10=-308/212, 5-8=-308/212

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 3-0-0, Corner(3R) 3-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 9-10-8, Corner(3E) 9-10-8 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	M01	Monopitch	7	1	Job Reference (optional)	I50287566

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:15 Page: 1
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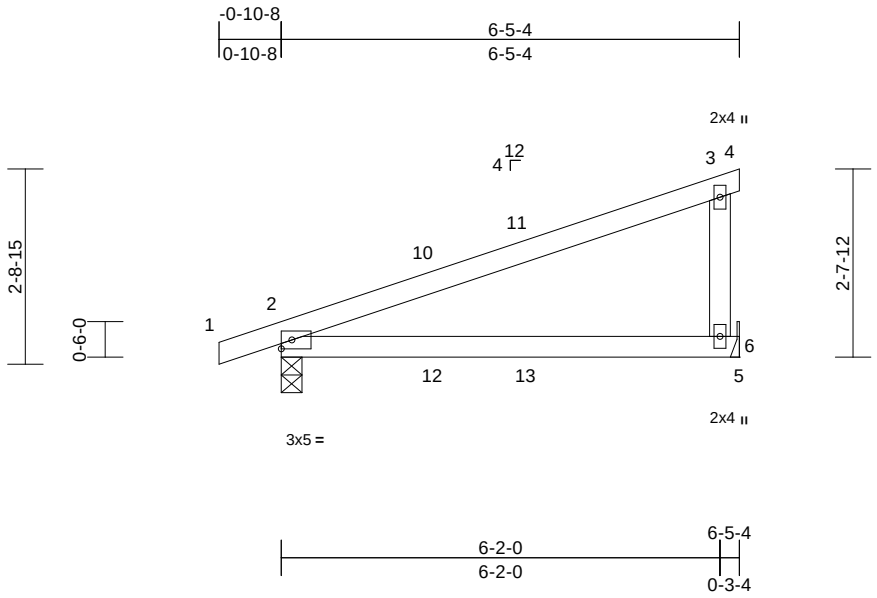

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	0.25	6-9	>291	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	0.20	6-9	>365	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
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 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=302/0-3-8, 6=265/ Mechanical
Max Horiz 2=95 (LC 13)
Max Uplift 2=-119 (LC 10), 6=-101 (LC 10)
Max Grav 2=392 (LC 21), 6=362 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-100/115, 3-4=-8/0, 3-6=-266/202
BOT CHORD 2-6=-93/144, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-5-4, Exterior(2E) 3-5-4 to 6-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 20.0 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 2-00-00 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 101 lb uplift at joint 6.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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.

LOAD CASE(S) Standard

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	M02	Monopitch Supported Gable	1	1	Job Reference (optional)	I50287567

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:15
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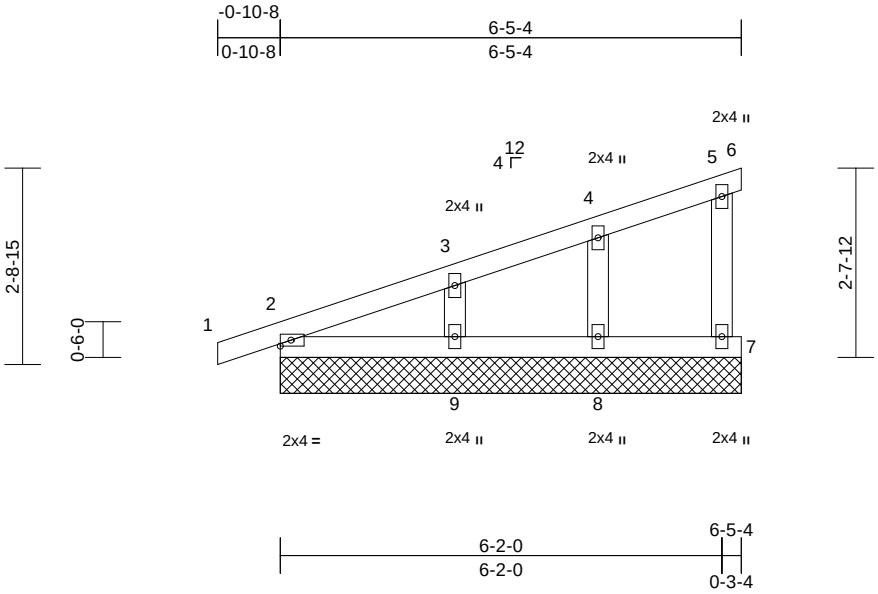

Scale = 1:32.2

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)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 27 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

BRACING

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

REACTIONS (lb/size) 2=143/6-5-4, 6=-12/6-5-4, 7=87/6-5-4, 8=152/6-5-4, 9=192/6-5-4, 10=143/6-5-4
Max Horiz 2=94 (LC 13), 10=94 (LC 13)
Max Uplift 2=-31 (LC 10), 6=-17 (LC 21), 7=-23 (LC 14), 8=-29 (LC 10), 9=-47 (LC 14), 10=-31 (LC 10)
Max Grav 2=172 (LC 21), 6=8 (LC 14), 7=122 (LC 21), 8=204 (LC 21), 9=267 (LC 21), 10=172 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/17, 2-3=-110/36, 3-4=-52/26, 4-5=-42/25, 5-6=-13/7, 5-7=-108/92
BOT CHORD	2-9=-46/51, 8-9=-38/51, 7-8=-38/51
WEBS	4-8=-170/162, 3-9=-205/193

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 20.0 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 2-00-00 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 17 lb uplift at joint 6.

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	PB1	Piggyback	9	1	Job Reference (optional)	I50287568

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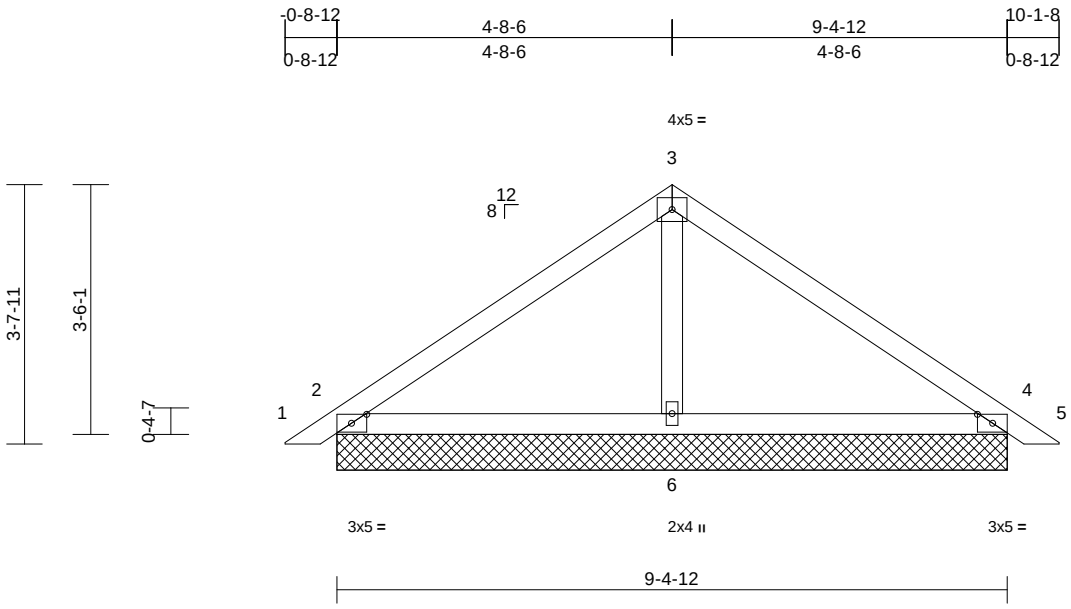

Scale = 1:32.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 38 lb	FT = 20%

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

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

REACTIONS (lb/size) 2=245/9-4-12, 4=245/9-4-12, 6=319/9-4-12, 7=245/9-4-12, 11=245/9-4-12
Max Horiz 2=81 (LC 13), 7=81 (LC 13)
Max Uplift 2=-44 (LC 14), 4=-55 (LC 15), 7=-44 (LC 14), 11=-55 (LC 15)
Max Grav 2=345 (LC 21), 4=345 (LC 22), 6=344 (LC 21), 7=345 (LC 21), 11=345 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-239/106, 3-4=-239/106, 4-5=0/16
BOT CHORD 2-6=-31/107, 4-6=-15/107
WEBS 3-6=-171/38

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-5 to 3-3-5, Exterior(2R) 3-3-5 to 7-7-11, Exterior(2E) 7-7-11 to 10-7-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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 2-00-00 wide will fit between the bottom chord and any other members.
11) N/A
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.
13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	PB2	Piggyback	2	1	Job Reference (optional)	I50287569

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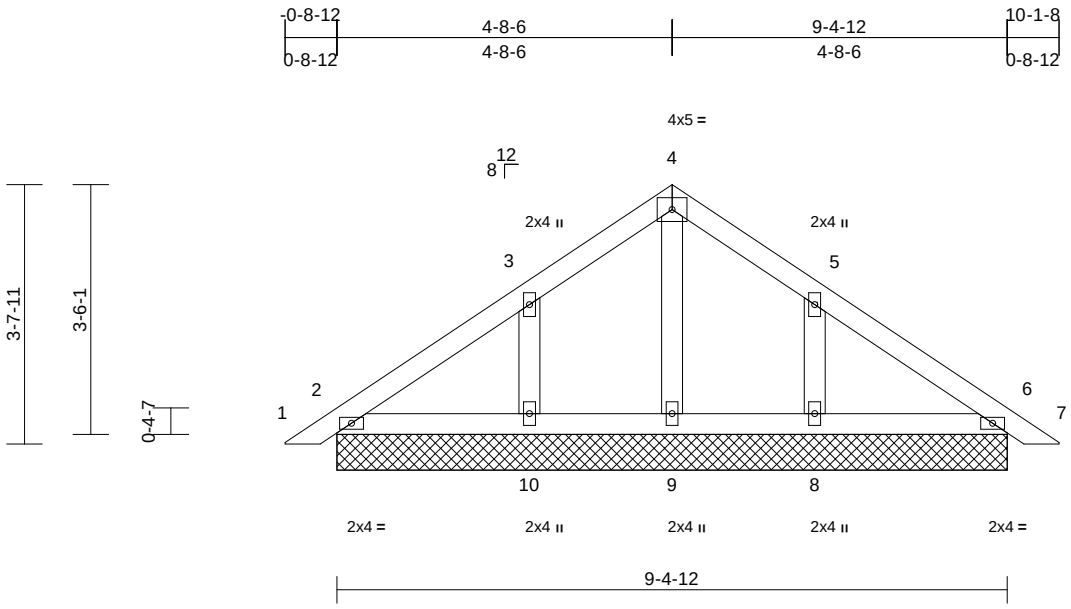

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 42 lb	FT = 20%

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

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

REACTIONS (lb/size) 2=134/9-4-12, 6=134/9-4-12, 8=228/9-4-12, 9=85/9-4-12, 10=228/9-4-12, 11=134/9-4-12, 15=134/9-4-12
Max Horiz 2=-81 (LC 12), 11=-81 (LC 12)
Max Uplift 2=-10 (LC 15), 6=-10 (LC 15), 8=-85 (LC 15), 10=-86 (LC 14), 11=-10 (LC 15), 15=-10 (LC 15)
Max Grav 2=180 (LC 21), 6=180 (LC 22), 8=350 (LC 22), 9=96 (LC 27), 10=350 (LC 21), 11=180 (LC 21), 15=180 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-74/53, 3-4=-98/91, 4-5=-98/91, 5-6=-67/49, 6-7=0/16
BOT CHORD 2-10=-21/62, 9-10=-21/62, 8-9=-21/62, 6-8=-21/62
WEBS 4-9=-72/0, 3-10=-265/126, 5-8=-265/126

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-5 to 3-5-8, Exterior(2R) 3-5-8 to 7-5-8, Exterior(2E) 7-5-8 to 10-7-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) N/A
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.
13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	PB3	Piggyback	8	1	Job Reference (optional)	I50287570

Carter Components (Sanford), Sanford, NC - 27332,

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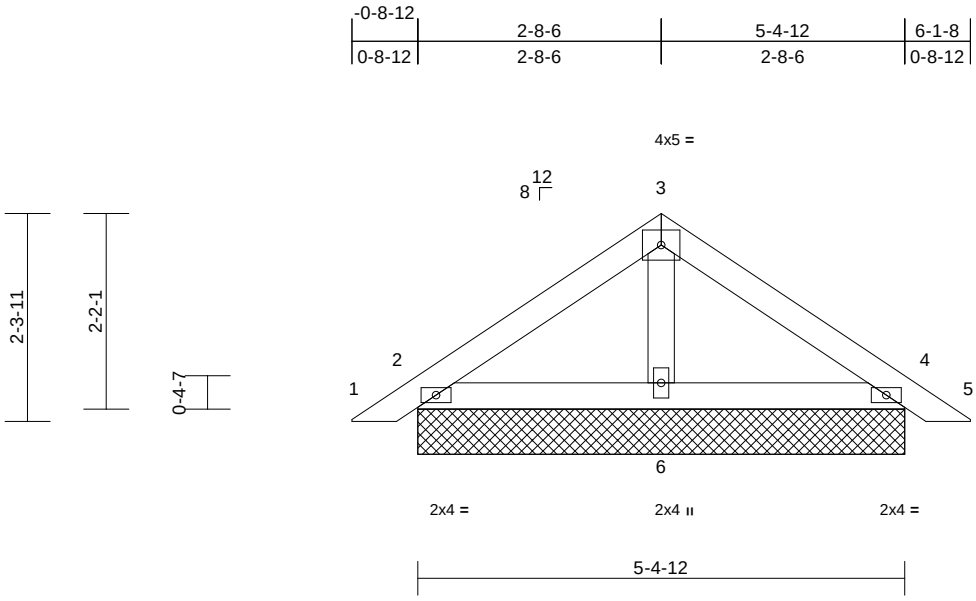

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
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 (lb/size) 2=150/5-4-12, 4=150/5-4-12, 6=189/5-4-12, 7=150/5-4-12, 11=150/5-4-12
Max Horiz 2=-50 (LC 12), 7=-50 (LC 12)
Max Uplift 2=-29 (LC 14), 4=-36 (LC 15), 7=-29 (LC 14), 11=-36 (LC 15)
Max Grav 2=212 (LC 21), 4=212 (LC 22), 6=195 (LC 21), 7=212 (LC 21), 11=212 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-107/71, 3-4=-107/71, 4-5=0/25
BOT CHORD 2-6=-12/45, 4-6=-3/45
WEBS 3-6=-84/18

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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 2-00-00 wide will fit between the bottom chord and any other members.
11) N/A
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.
13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 044925 ENGINEER SCOTT M. SEVIER

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	
22040112	V1	Valley	1	1	Job Reference (optional)	I50287571

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:16 Page: 1
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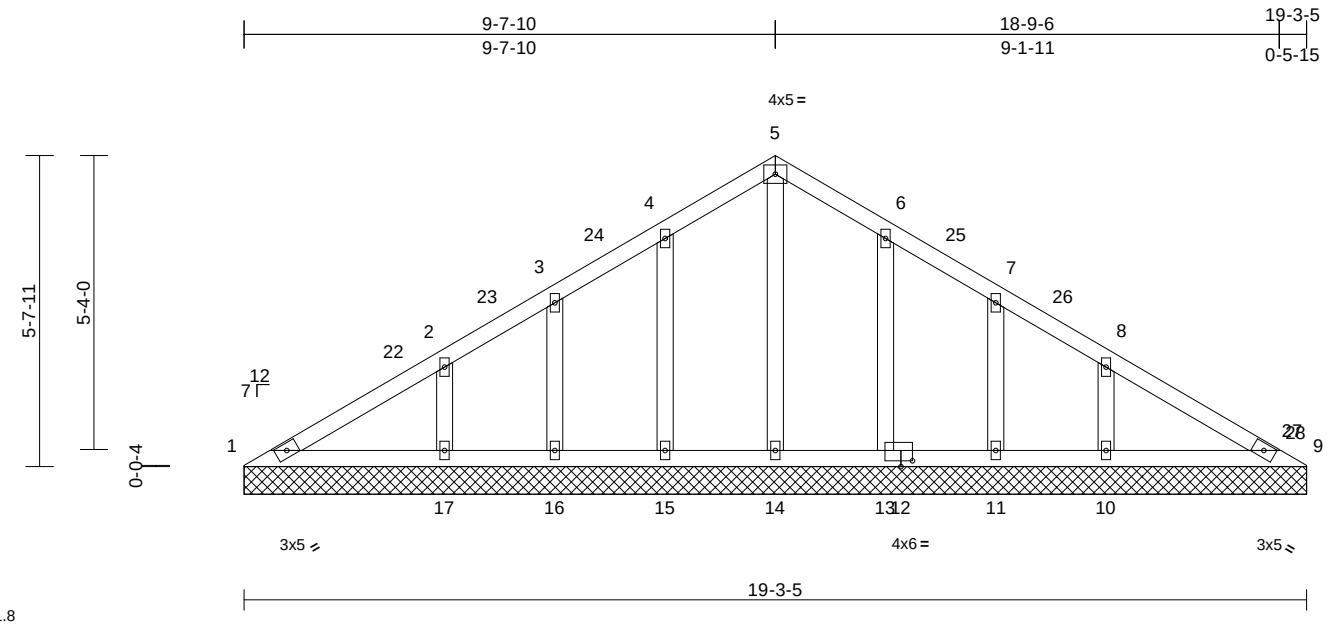


Scale = 1:41.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 92 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 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 1=95/19-3-5, 9=67/19-3-5, 10=282/19-3-5, 11=109/19-3-5, 13=181/19-3-5, 14=200/19-3-5, 15=182/19-3-5, 16=108/19-3-5, 17=287/19-3-5
Max Horiz 1=128 (LC 11)
Max Uplift 1=-5 (LC 15), 10=-75 (LC 15), 11=-42 (LC 15), 13=-54 (LC 15), 15=-56 (LC 14), 16=-40 (LC 14), 17=-79 (LC 14)
Max Grav 1=103 (LC 24), 9=73 (LC 34), 10=290 (LC 24), 11=177 (LC 21), 13=267 (LC 21), 14=200 (LC 1), 15=268 (LC 20), 16=175 (LC 20), 17=296 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-145/164, 2-3=-55/117, 3-4=-27/120, 4-5=-28/124, 5-6=-28/117, 6-7=-3/98, 7-8=-3/81, 8-9=-109/124
BOT CHORD 1-17=-79/139, 16-17=-79/85, 15-16=-79/85, 14-15=-79/85, 13-14=-79/85, 11-13=-79/85, 10-11=-79/85, 9-10=-79/95
WEBS 5-14=-164/0, 4-15=-221/79, 3-16=-161/67, 2-17=-194/96, 6-13=-220/77, 7-11=-162/68, 8-10=-191/94

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 6-8-1, Exterior(2R) 6-8-1 to 12-8-1, Interior (1) 12-8-1 to 15-8-1, Exterior(2E) 15-8-1 to 18-9-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 5 lb uplift at joint 1.

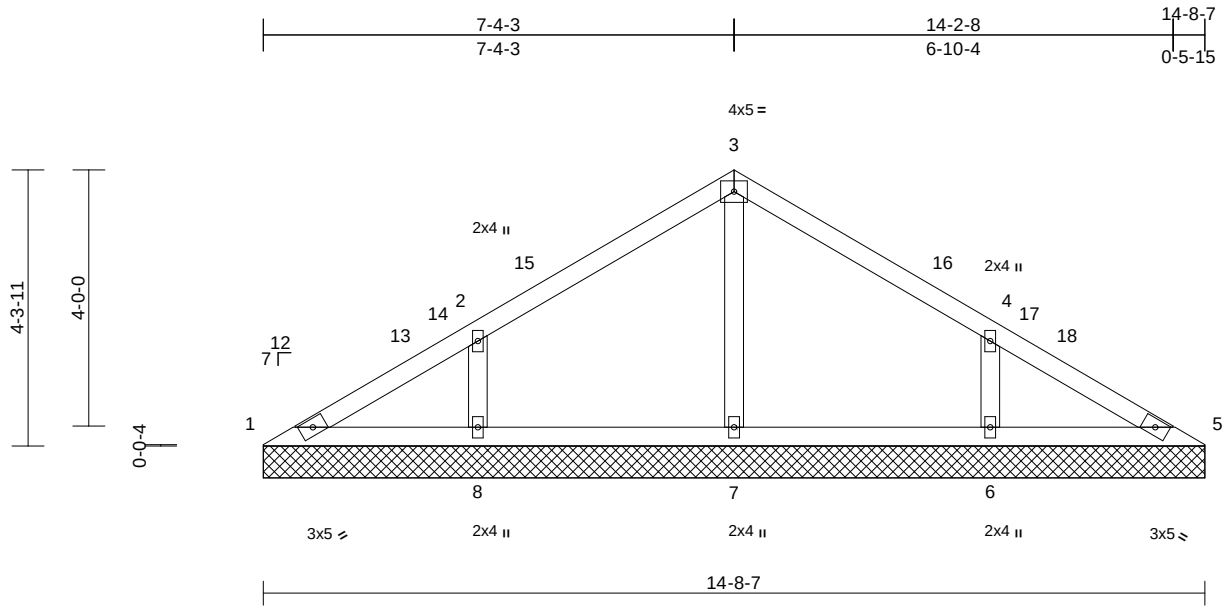
February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC
22040112	V2	Valley	1	1	I50287572
					Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 17 00:12:16 ID:IKrrabfpxGyU91MNPr55LvyEKbG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36

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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 55 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 6-0-0 oc bracing.

REACTIONS (lb/size) 1=89/14-8-7, 5=89/14-8-7, 6=339/14-8-7, 7=320/14-8-7, 8=339/14-8-7
Max Horiz 1=-97 (LC 10)
Max Uplift 1=-10 (LC 15), 6=-107 (LC 15), 8=-109 (LC 14)
Max Grav 1=92 (LC 24), 5=89 (LC 34), 6=472 (LC 21), 7=327 (LC 20), 8=472 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-129/124, 2-3=-103/108, 3-4=-103/95, 4-5=-114/93
BOT CHORD	1-8=-51/119, 7-8=-51/59, 6-7=-51/59, 5-6=-51/91
WEBS	3-7=-249/22, 2-8=-388/147, 4-6=-388/146

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 4-4-10, Exterior(2R) 4-4-10 to 10-4-10, Interior (1) 10-4-10 to 11-8-14, Exterior(2E) 11-8-14 to 14-8-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 4-0-0 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 2-00-00 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 10 lb uplift at joint 1.

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	I50287573
22040112	V3	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford), Sanford, NC - 27332,

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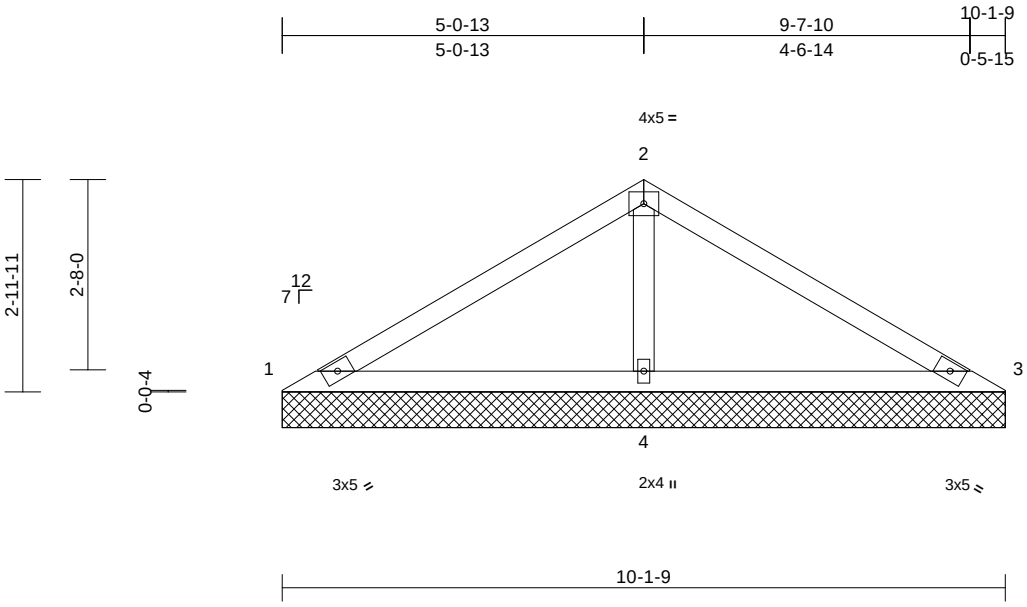

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.43	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 34 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=35/10-1-9, 3=35/10-1-9, 4=740/10-1-9
Max Horiz 1=-66 (LC 10)
Max Uplift 1=-46 (LC 21), 3=-46 (LC 20), 4=-73 (LC 14)
Max Grav 1=122 (LC 20), 3=122 (LC 21), 4=787 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-117/419, 2-3=-117/419
BOT CHORD 1-4=-270/141, 3-4=-270/141
WEBS 2-4=-607/209

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-7 to 3-0-7, Exterior(2R) 3-0-7 to 7-2-0, Exterior(2E) 7-2-0 to 10-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 4-0-0 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 2-00-00 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 46 lb uplift at joint 1 and 46 lb uplift at joint 3.

February 17,2022

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

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 93 FaNC	I50287574
22040112	V4	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford), Sanford, NC - 27332,

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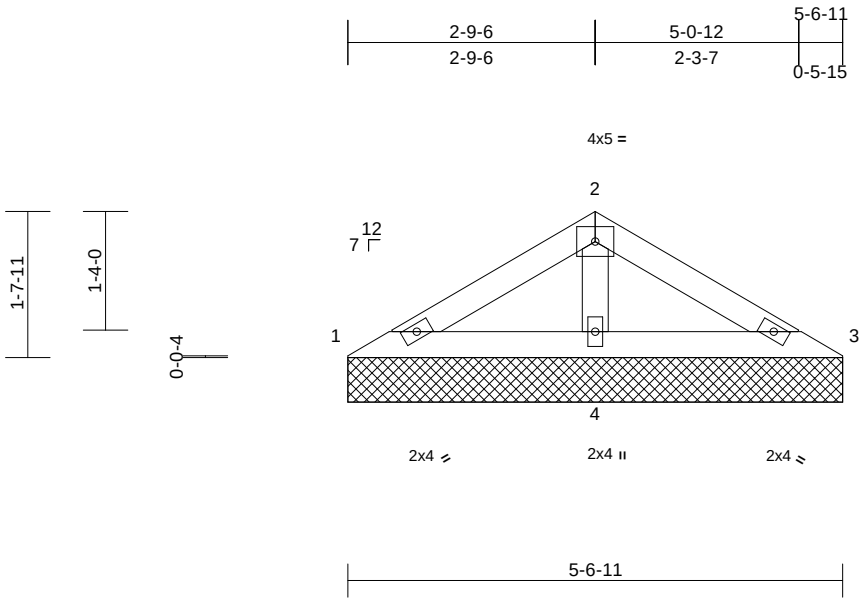

Scale = 1:25.9

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)	20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 18 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 5-6-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 1=54/5-6-11, 3=54/5-6-11, 4=336/5-6-11
Max Horiz 1=-35 (LC 12)
Max Uplift 1=-7 (LC 14), 3=-13 (LC 15), 4=-27 (LC 14)
Max Grav 1=94 (LC 20), 3=94 (LC 21), 4=338 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-97/138, 2-3=-97/138
BOT CHORD 1-4=-105/85, 3-4=-105/85
WEBS 2-4=-213/106

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=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 4-0-0 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 2-00-00 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 7 lb uplift at joint 1 and 13 lb uplift at joint 3.

February 17,2022

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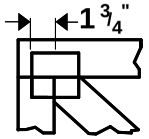
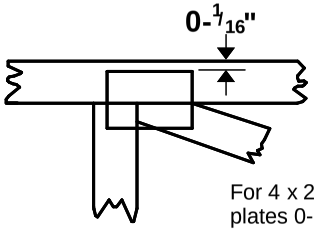
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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.

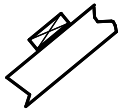
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

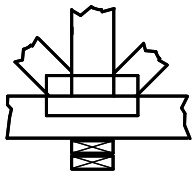
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

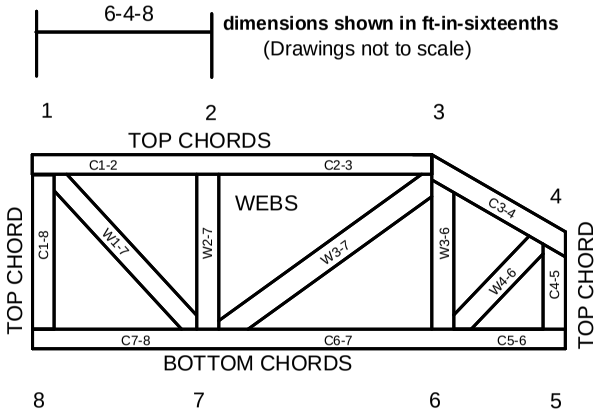


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 Reference Sheet: MII-7473 rev. 5/19/2020

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.