

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 3882924
SUPERIOR- NASH

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

Pages or sheets covered by this seal: I66587526 thru I66587543

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

North Carolina COA: C-0844



July 1,2024

Gilbert, Eric

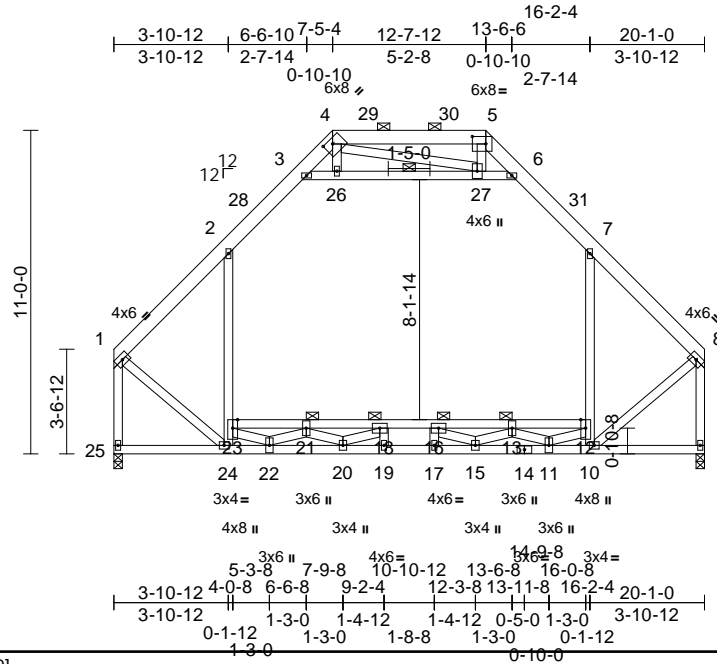
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

Job 3882924	Truss A1B	Truss Type Attic	Qty 7	Ply 1	SUPERIOR- NASH Job Reference (optional)	I66587527
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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Page: 1



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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.15	17-19	>999	360	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.26	17-19	>913	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	-0.14	24-25	>999	240		
BCDL	10.0											
											Weight: 191 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 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.): 4-5.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
3-9-0 oc bracing: 13-21
6-0-0 oc bracing: 21-23, 12-13

WEBS 1 Row at midpt 3-6
JOINTS 1 Brace at Jt(s): 21, 13

REACTIONS (size) 9=0-3-8, 25=0-3-8
Max Horiz 25=184 (LC 10)
Max Grav 9=1419 (LC 41), 25=1419 (LC 41)

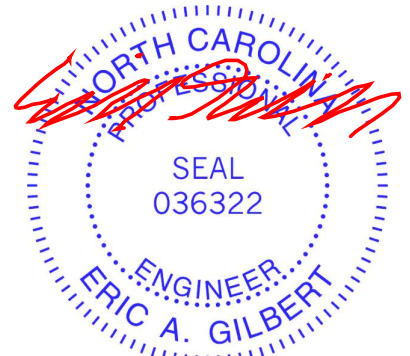
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1062/0, 2-3=-714/81, 3-4=-369/175, 4-5=-222/418, 5-6=-360/211, 6-7=-715/82, 7-8=-1061/0, 1-25=-1398/0, 8-9=-1397/0
BOT CHORD 24-25=-192/207, 22-24=-130/801, 20-22=0/2240, 19-20=0/3005, 17-19=0/3005, 15-17=0/3005, 11-15=0/2217, 10-11=0/670, 9-10=-13/27, 21-23=-886/85, 18-21=-2071/0, 16-18=-2445/0, 13-16=-2072/0, 12-13=-898/99

WEBS 23-24=-447/66, 2-23=-78/444, 10-12=-454/72, 7-12=-79/443, 3-26=-1009/128, 26-27=-1000/130, 6-27=-1053/135, 1-24=0/853, 4-26=0/77, 5-27=-28/117, 4-27=-228/194, 11-12=0/993, 22-23=0/991, 21-22=-1066/0, 13-15=0/519, 20-21=0/519, 15-16=-456/25, 18-20=-458/29, 18-19=-26/61, 16-17=-24/59, 8-10=0/856, 11-13=-1064/0

- NOTES (14)**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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) Provide adequate drainage to prevent water ponding.
 - 6) All plates are 2x4 MT20 unless otherwise indicated.
 - 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). 2-3, 6-7, 3-26, 26-27, 6-27; Wall dead load (5.0psf) on member (s).2-23, 7-12
 - 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 21-23, 18-21, 16-18, 13-16, 12-13

- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Attic room checked for L/360 deflection.
- 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



July 1, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbccomponents.com)



818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss A1E	Truss Type Attic Supported Gable	Qty 1	Ply 1	SUPERIOR- NASH Job Reference (optional)	I66587528
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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Page: 2

- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 31, 98 lb uplift at joint 13, 234 lb uplift at joint 29, 252 lb uplift at joint 15, 66 lb uplift at joint 30 and 65 lb uplift at joint 14.
- 16) 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.
- 17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 18) Attic room checked for L/360 deflection.
- 19) 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

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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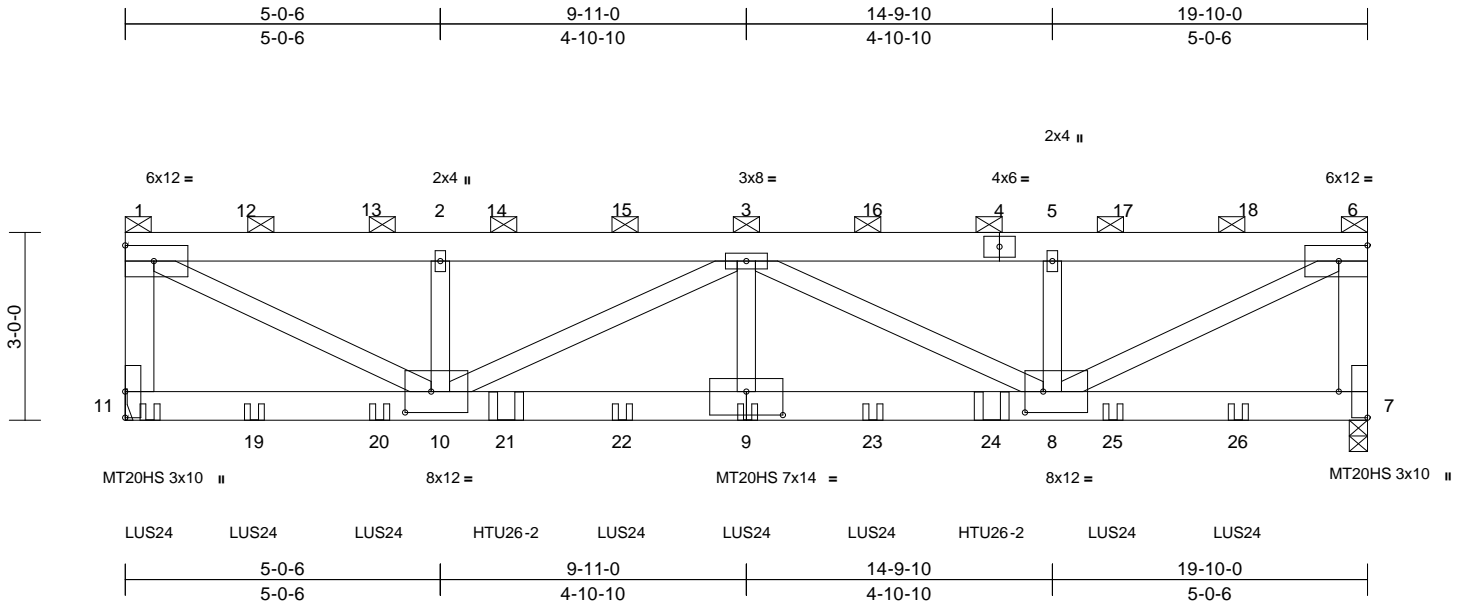
818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss FG-2	Truss Type Flat Girder	Qty 1	Ply 2	SUPERIOR- NASH Job Reference (optional)	166587529
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:36
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Page: 1



Scale = 1:36.8

Plate Offsets (X, Y): [7:Edge,0-5-8], [8:0-3-8,0-4-0], [9:0-7-0,0-4-8], [10:0-5-0,0-4-0]

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	0.70	Vert(LL)	-0.17	9-10	>999	360	MT20HS	187/143
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.35	9-10	>658	240	MT20	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.05	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.18	9-10	>999	240		
BCDL	10.0											
											Weight: 283 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS
 WEBS 2x4 SP No.3 *Except* 11-1,6-7:2x6 SP No.2, 10-1,8-6:2x4 SP No.1

BRACING

TOP CHORD 2-0-0 oc purlins (3-10-0 max.): 1-6, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 7=0-3-8, 11= Mechanical
 Max Uplift 7=-1381 (LC 8), 11=-1632 (LC 8)
 Max Grav 7=6791 (LC 2), 11=7343 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-11=-6221/1183, 1-2=-10728/2083, 2-3=-10728/2083, 3-5=-10740/2086, 5-6=-10740/2086, 6-7=-6241/1193
 BOT CHORD 10-11=-92/409, 8-10=-2617/14170, 7-8=-92/412
 WEBS 1-10=-2253/11676, 3-9=-251/1494, 6-8=-2255/11685, 2-10=-2056/273, 3-10=-3880/602, 5-8=-2055/272, 3-8=-3867/599

NOTES (17)

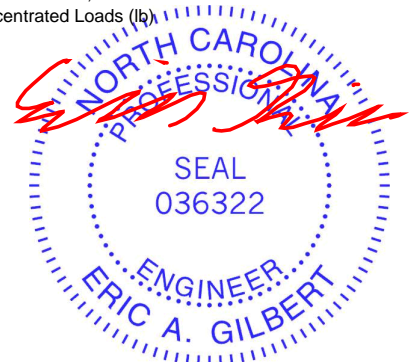
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally 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.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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
- 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
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1632 lb uplift at joint 11 and 1381 lb uplift at joint 7.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 3-10-8 oc max. starting at 0-4-12 from the left end to 17-9-4 to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie HTU26-2 (20-10d Girder, 14-10d Truss) or equivalent spaced at 7-9-0 oc max. starting at 6-1-0 from the left end to 13-10-0 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 759 lb down and 66 lb up at 1-11-4, 759 lb down and 66 lb up at 3-11-4, 759 lb down and 66 lb up at 5-11-4, 759 lb down and 66 lb up at 7-11-4, 759 lb down and 66 lb up at 9-11-4, 759 lb down and 66 lb up at 11-11-4, 759 lb down and 66 lb up at 13-11-4, 759 lb down and 66 lb up at 15-11-4, and 759 lb down and 66 lb up at 17-11-4, and 44 lb down and 8 lb up at 19-7-4 on top chord. The design/selection of such connection device (s) is the responsibility of others.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-6=-50, 7-11=-20
 Concentrated Loads (lb)



July 1, 2024

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
 Edenton, NC 27932

Job 3882924	Truss FG-2	Truss Type Flat Girder	Qty 1	Ply 2	SUPERIOR- NASH Job Reference (optional)	I66587529
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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Page: 2

Vert: 11=-428 (F), 4=-542, 3=-542, 9=-404 (F),
12=-542, 13=-542, 14=-542, 15=-542, 16=-542,
17=-542, 18=-542, 19=-420 (F), 20=-420 (F),
21=-652 (F), 22=-404 (F), 23=-404 (F), 24=-652 (F),
25=-420 (F), 26=-420 (F)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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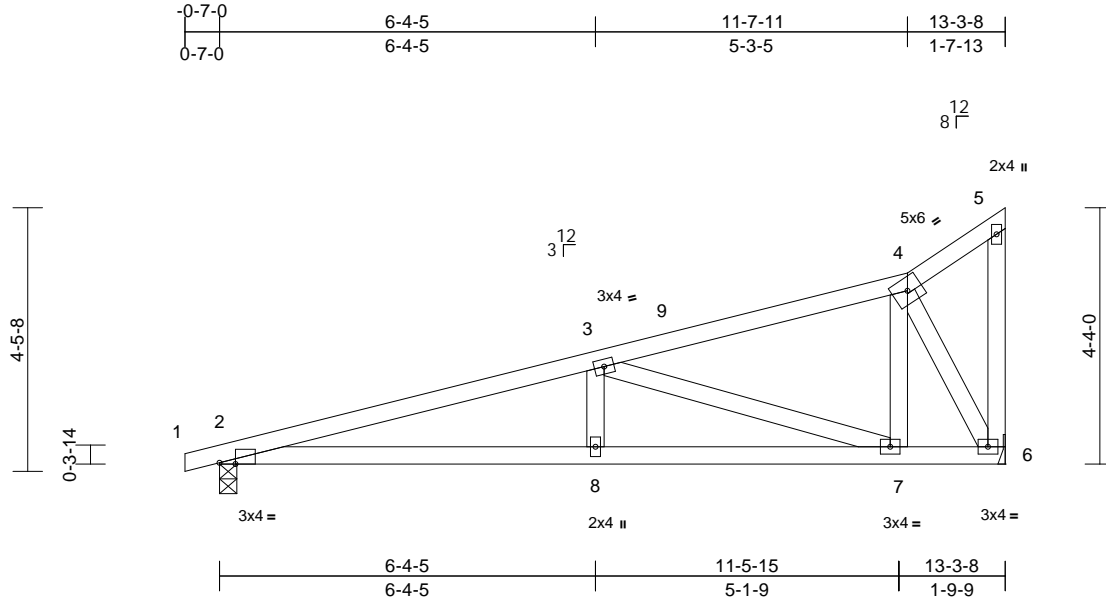
818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss J01	Truss Type Jack-Closed	Qty 3	Ply 1	SUPERIOR- NASH Job Reference (optional)	I66587530
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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Page: 1



Scale = 1:39

Plate Offsets (X, Y): [2:0-3-4,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	0.47	Vert(LL)	-0.05	2-8	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.13	2-8	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.05	2-8	>999	240		
BCDL	10.0										Weight: 65 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 4-4-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 6= Mechanical
Max Horiz 2=155 (LC 12)
Max Uplift 2=-109 (LC 8), 6=-118 (LC 2)
Max Grav 2=565 (LC 2), 6=519 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/7, 2-3=-1275/176, 3-4=-333/29, 4-5=-44/19, 5-6=-35/17
BOT CHORD 2-8=-258/1194, 7-8=-258/1194, 6-7=-52/262
WEBS 3-8=0/256, 3-7=-959/214, 4-7=-18/369, 4-6=-568/113

NOTES (10)

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 6 and 109 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) 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



July 1, 2024

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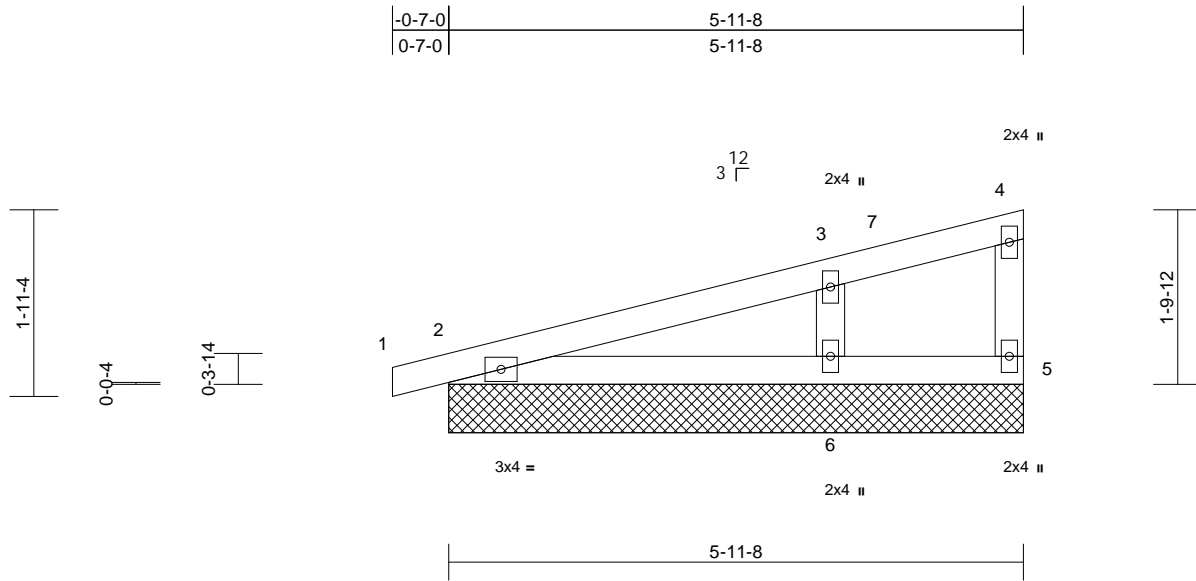
818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss J02	Truss Type Monopitch Structural Gable	Qty 2	Ply 1	SUPERIOR- NASH Job Reference (optional)	166587531
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:36
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	n/a	-	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 22 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 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, 5=5-11-8, 6=5-11-8
 Max Horiz 2=63 (LC 8)
 Max Uplift 2=-39 (LC 8), 5=-4 (LC 8), 6=-68 (LC 12)
 Max Grav 2=167 (LC 2), 5=13 (LC 2), 6=320 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/7, 2-3=-46/34, 3-4=-24/0, 4-5=-10/5
 BOT CHORD 2-6=0/0, 5-6=0/0
 WEBS 3-6=-238/117

- NOTES (12)**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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 4 lb uplift at joint 5, 39 lb uplift at joint 2 and 68 lb uplift at joint 6.
- 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



July 1, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



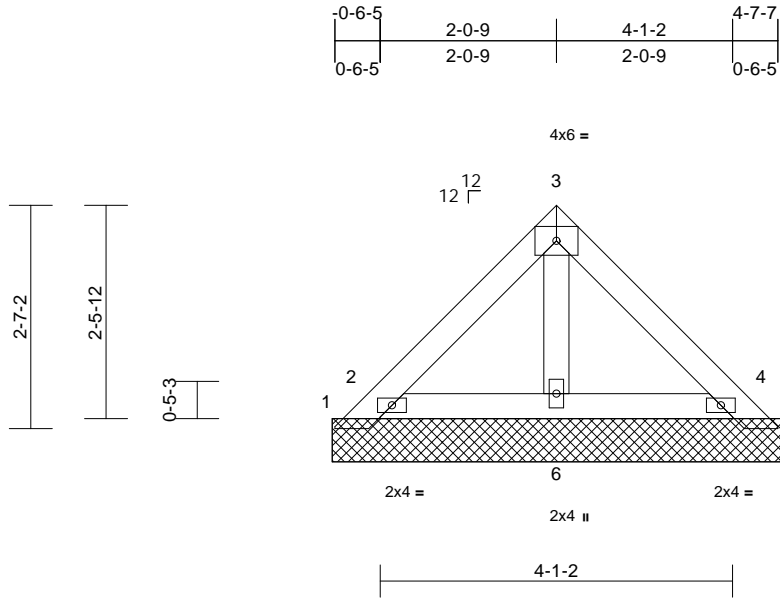
818 Soundside Road
 Edenton, NC 27932

Job 3882924	Truss PB1	Truss Type Piggyback	Qty 11	Ply 1	SUPERIOR- NASH Job Reference (optional)	166587532
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:36
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Page: 1



Scale = 1:26.8

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
										Weight: 20 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 5-2-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=5-2-8, 2=5-2-8, 4=5-2-8,
5=5-2-8, 6=5-2-8
Max Horiz 1=59 (LC 9)
Max Uplift 1=-117 (LC 26), 2=-149 (LC 12),
4=-126 (LC 13), 5=-84 (LC 27)
Max Grav 1=118 (LC 12), 2=238 (LC 26),
4=212 (LC 27), 5=88 (LC 13),
6=124 (LC 7)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-102/121, 2-3=-79/39, 3-4=-74/30,
4-5=-53/66
BOT CHORD 2-6=-22/50, 4-6=-22/50
WEBS 3-6=-66/8

NOTES (13)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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
- 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.

- 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
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 1, 84 lb uplift at joint 5, 149 lb uplift at joint 2 and 126 lb uplift at joint 4.
- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 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



July 1, 2024

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

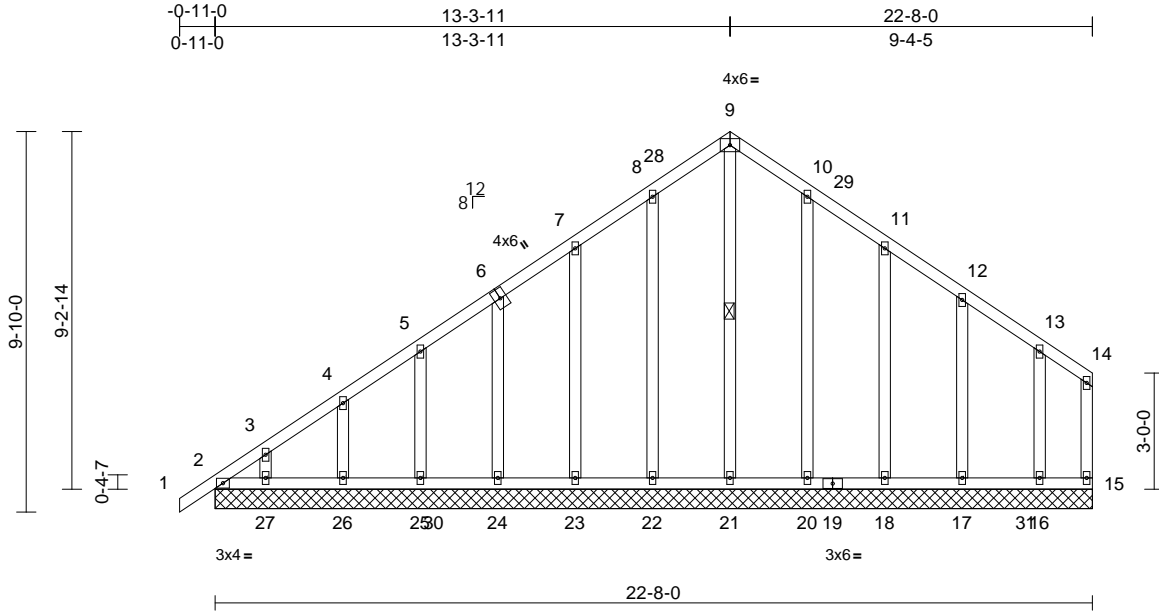
Job 3882924	Truss T1E	Truss Type Common Supported Gable	Qty 1	Ply 1	SUPERIOR- NASH Job Reference (optional)	166587534
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:36

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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	0.07	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	0.15	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 161 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 *Except* 26-4:2x4 SP No.2

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.
WEBS	1 Row at midpt 9-21

REACTIONS	(size)
Max Horiz	2=228 (LC 12)
Max Uplift	2=-95 (LC 8), 16=-77 (LC 13), 17=-62 (LC 13), 18=-69 (LC 13), 20=-55 (LC 13), 21=-22 (LC 11), 22=-61 (LC 12), 23=-67 (LC 12), 24=-63 (LC 12), 25=-62 (LC 12), 26=-67 (LC 12), 27=-52 (LC 12)
Max Grav	2=167 (LC 27), 15=38 (LC 2), 16=178 (LC 27), 17=236 (LC 27), 18=229 (LC 27), 20=235 (LC 27), 21=305 (LC 29), 22=241 (LC 26), 23=227 (LC 26), 24=234 (LC 26), 25=187 (LC 26), 26=175 (LC 26), 27=136 (LC 26)

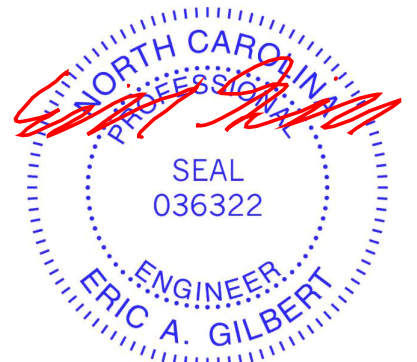
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/29, 2-3=-249/226, 3-4=-218/209, 4-5=-187/185, 5-7=-170/195, 7-8=-136/232, 8-9=-116/261, 9-10=-99/250, 10-11=-78/193, 11-12=-61/129, 12-13=-42/66, 13-14=-17/24, 14-15=-28/6

BOT CHORD	
	2-27=-4/7, 26-27=-4/7, 25-26=-4/7, 24-25=-4/7, 23-24=-4/7, 22-23=-4/7, 21-22=-4/7, 20-21=-4/7, 18-20=-4/7, 17-18=-4/7, 16-17=-4/7, 15-16=-4/7
WEBS	
	9-21=-231/62, 8-22=-141/85, 7-23=-128/91, 6-24=-131/87, 5-25=-128/86, 4-26=-136/92, 3-27=-106/76, 10-20=-135/79, 11-18=-130/92, 12-17=-134/88, 13-16=-117/87

- NOTES (14)**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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
 - 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.
 - 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
 - Unbalanced snow loads have been considered for this design.
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 2, 22 lb uplift at joint 21, 61 lb uplift at joint 22, 67 lb uplift at joint 23, 63 lb uplift at joint 24, 62 lb uplift at joint 25, 67 lb uplift at joint 26, 52 lb uplift at joint 27, 55 lb uplift at joint 20, 69 lb uplift at joint 18, 62 lb uplift at joint 17 and 77 lb uplift at joint 16.
- 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.
- 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



July 1, 2024

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



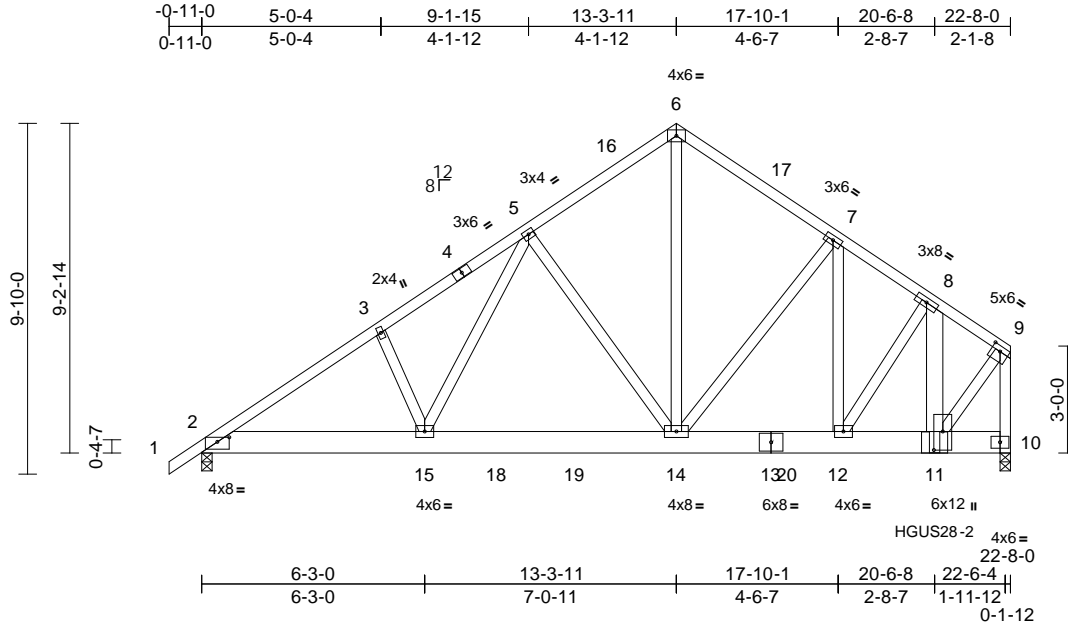
818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss T1G-2	Truss Type Common Girder	Qty 1	Ply 2	SUPERIOR- NASH Job Reference (optional)	166587535
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:36
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Page: 1



Scale = 1:64.6

Plate Offsets (X, Y): [2:0-4-0,0-1-9], [9:Edge,0-1-12], [11:0-6-4,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.03	11-12	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	11-12	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.01	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	11-12	>999	240		
BCDL	10.0											
											Weight: 378 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
 BOT CHORD 2x8 SP 2400F 2.0E or 2x8 SP DSS
 WEBS 2x4 SP No.3 *Except* 10-9,11-9:2x4 SP No.2, 11-8:2x6 SP No.2

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

(size) 2=0-3-8, 10=0-3-8
 Max Horiz 2=228 (LC 36)
 Max Uplift 2=-269 (LC 12), 10=-1575 (LC 13)
 Max Grav 2=1608 (LC 2), 10=7568 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/36, 2-3=-2488/403, 3-5=-2375/465, 5-6=-1928/436, 6-7=-1937/447, 7-8=-3124/658, 8-9=-4135/873, 9-10=-6766/1410
 BOT CHORD 2-15=-463/2096, 14-15=-369/1821, 12-14=-498/2597, 11-12=-702/3386, 10-11=-16/69
 WEBS 3-15=-250/167, 5-15=-102/414, 5-14=-441/214, 6-14=-396/1814, 7-14=-1760/511, 7-12=-482/1819, 9-11=-1140/5502, 8-11=-570/1826, 8-12=-1478/487

NOTES (14)

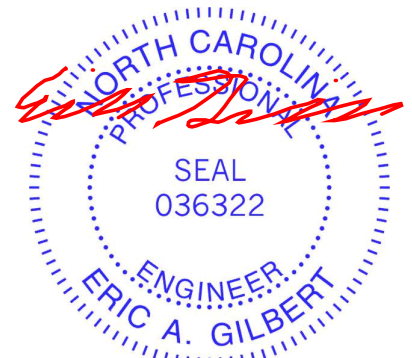
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-2-0 oc.
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.

- 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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
- 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
- Unbalanced snow loads have been considered for this design.
- 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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 2 and 1575 lb uplift at joint 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.

- Use Simpson Strong-Tie HGUS28-2 (36-16d Girder, 12-16d Truss) or equivalent at 20-6-8 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-6=-40, 6-9=-40, 2-10=-20
 Concentrated Loads (lb)
 Vert: 11=-5614 (B)



July 1, 2024

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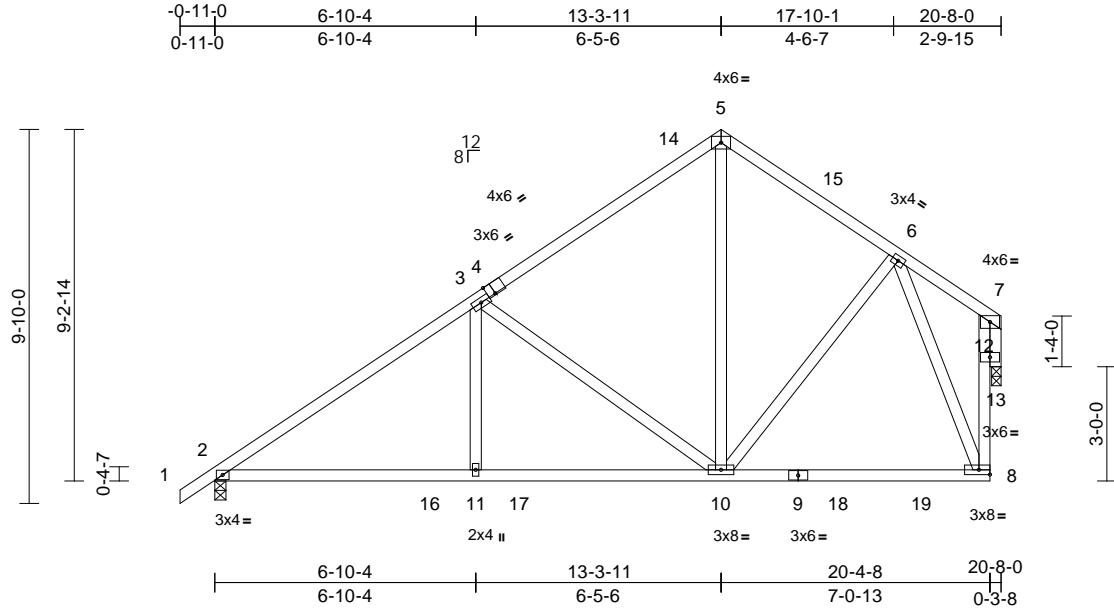
818 Soundside Road
 Edenton, NC 27932

Job 3882924	Truss T2	Truss Type Common	Qty 9	Ply 1	SUPERIOR- NASH Job Reference (optional)	I66587536
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:36
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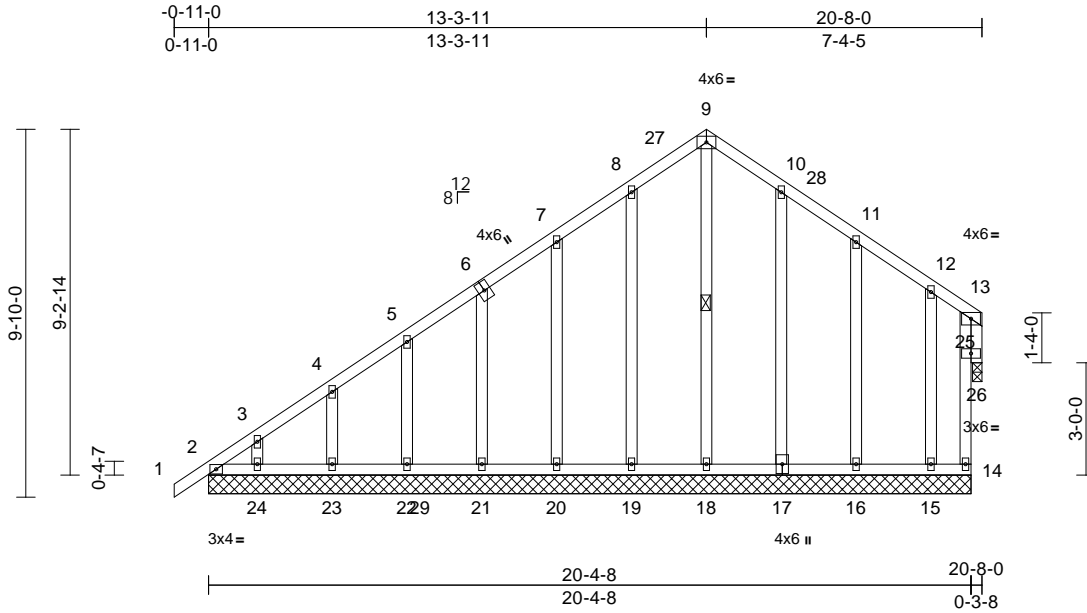


Job 3882924	Truss T2E	Truss Type Common Supported Gable	Qty 1	Ply 1	SUPERIOR- NASH Job Reference (optional)	166587537
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MITek Industries, Inc. Mon Jul 01 07:41:37
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Page: 1



Scale = 1:61.6

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	0.06	Vert(LL)	0.00	21-22	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	15-16	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	26	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-R		Wind(LL)	0.00	2-24	>999	240		
BCDL	10.0											
											Weight: 153 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 *Except* 25-13:2x4 SP No.2

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.

WEBS	
	1 Row at midpt 9-18

REACTIONS	(size)
	2=20-4-8, 14=20-4-8, 15=20-4-8, 16=20-4-8, 17=20-4-8, 18=20-4-8, 19=20-4-8, 20=20-4-8, 21=20-4-8, 22=20-4-8, 23=20-4-8, 24=20-4-8, 26=0-3-0
Max Horiz	2=262 (LC 12)
Max Uplift	2=-73 (LC 8), 14=-25 (LC 13), 15=-61 (LC 13), 16=-69 (LC 13), 17=-59 (LC 13), 19=-63 (LC 12), 20=-66 (LC 12), 21=-63 (LC 12), 22=-62 (LC 12), 23=-67 (LC 12), 24=-53 (LC 12), 26=-21 (LC 11)
Max Grav	2=157 (LC 27), 14=25 (LC 11), 15=178 (LC 27), 16=238 (LC 27), 17=234 (LC 27), 18=269 (LC 29), 19=240 (LC 26), 20=228 (LC 26), 21=234 (LC 26), 22=187 (LC 26), 23=174 (LC 26), 24=136 (LC 26), 26=30 (LC 13)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/29, 2-3=-279/207, 3-4=-226/190, 4-5=-177/166, 5-7=-146/145, 7-8=-112/165, 8-9=-92/196, 9-10=-79/185, 10-11=-60/125, 11-12=-40/60, 12-13=-12/20, 14-25=-26/35, 13-25=-26/35

BOT CHORD	
	2-24=-2/4, 23-24=-2/4, 22-23=-2/4, 21-22=-2/4, 20-21=-2/4, 19-20=-2/4, 18-19=-2/4, 16-18=-3/4, 15-16=-3/4, 14-15=-3/4
WEBS	
	9-18=-168/37, 8-19=-140/87, 7-20=-129/90, 6-21=-131/87, 5-22=-128/86, 4-23=-136/91, 3-24=-106/77, 10-17=-135/82, 11-16=-135/94, 12-15=-106/74, 13-26=-31/22

- NOTES (15)**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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
 - 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.
 - 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
 - Unbalanced snow loads have been considered for this design.
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.

- Bearing at joint(s) 26 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 26.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 14, 73 lb uplift at joint 2, 63 lb uplift at joint 19, 66 lb uplift at joint 20, 63 lb uplift at joint 21, 62 lb uplift at joint 22, 67 lb uplift at joint 23, 53 lb uplift at joint 24, 59 lb uplift at joint 17, 69 lb uplift at joint 16, 61 lb uplift at joint 15 and 21 lb uplift at joint 26.
- 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.
- 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



July 1, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

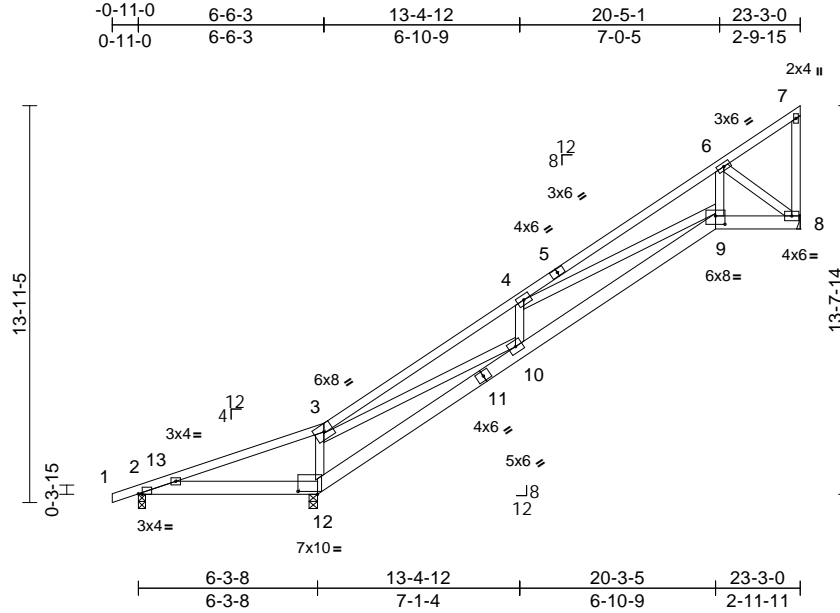


Job 3882924	Truss T3	Truss Type Jack-Closed	Qty 5	Ply 1	SUPERIOR- NASH Job Reference (optional)	I66587538
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:37
ID:3_65HMFNp6OF2ax1lmvDQwzDjU-RfC?PsB70Hq3NSgPqnl8w3uITXbGKWwRcDoi7J4zJC?f

Page: 1



Scale = 1:81

Plate Offsets (X, Y): [2:0-1-10,Edge], [9:0-4-0,0-3-8], [12:0-8-4,0-1-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.08	9-10	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.16	9-10	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.05	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.10	9-10	>999	240		
BCDL	10.0										Weight: 144 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-5-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 2=0-3-0, 8= Mechanical, 12=0-3-8
Max Horiz 2=520 (LC 12)
Max Uplift 2=-167 (LC 10), 8=-256 (LC 12), 12=-213 (LC 12)
Max Grav 2=111 (LC 12), 8=631 (LC 26), 12=1234 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

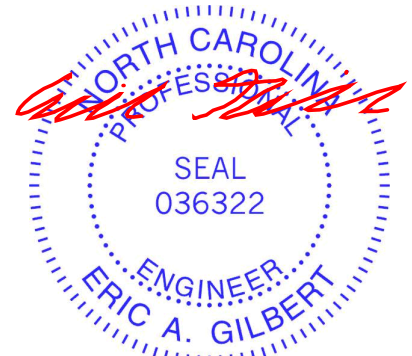
TOP CHORD 1-2=0/20, 2-3=-550/777, 3-4=-1475/290, 4-6=-1061/263, 6-7=-82/3, 7-8=-13/8
BOT CHORD 10-12=-692/53, 9-10=-711/1542, 8-9=-337/783, 2-12=-605/44
WEBS 3-12=-690/254, 3-10=-629/1914, 4-10=-376/271, 4-9=-443/230, 6-9=-241/781, 6-8=-986/426

NOTES (10)

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 256 lb uplift at joint 8, 213 lb uplift at joint 12 and 167 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) 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



July 1, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



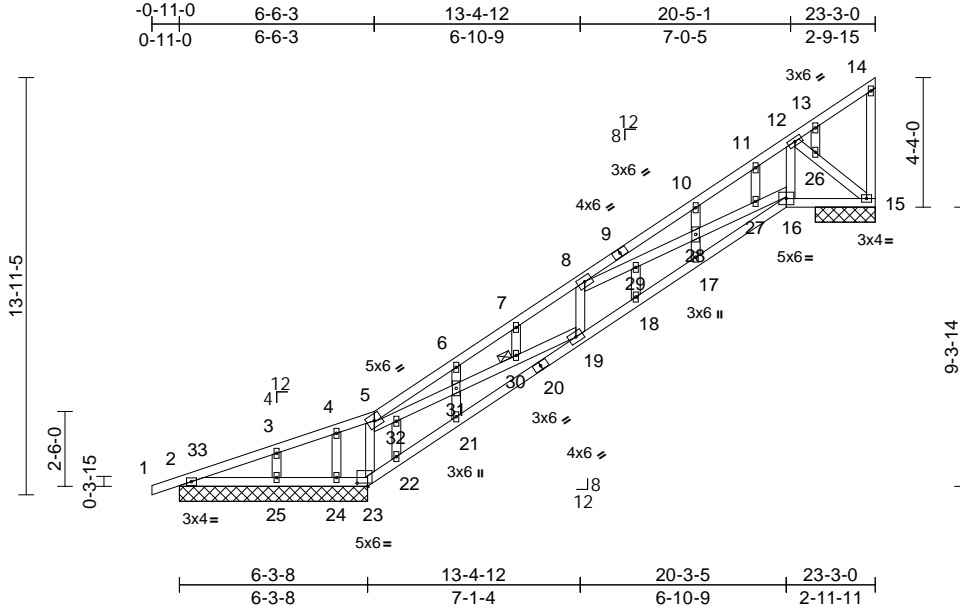
818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss T3E	Truss Type Roof Special Structural Gable	Qty 1	Ply 1	SUPERIOR- NASH Job Reference (optional)	166587539
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:37
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Page: 1



Scale = 1:77

Plate Offsets (X, Y): [23:0-4-4,0-1-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.12	17-18	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.25	17-18	>810	240		
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.07	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.16	17-18	>999	240		
BCDL	10.0											
											Weight: 139 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 19-5,16-8:2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 30

REACTIONS (size)
2=6-3-8, 15=2-0-0, 23=6-3-8,
24=6-3-8, 25=6-3-8
Max Horiz 2=521 (LC 12)
Max Uplift 2=-149 (LC 10), 15=-259 (LC 12),
23=-186 (LC 12), 24=-66 (LC 10),
25=-65 (LC 12)
Max Grav 2=137 (LC 12), 15=645 (LC 26),
23=1035 (LC 2), 24=32 (LC 19),
25=269 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-557/647, 3-4=-513/649,
4-5=-501/680, 5-6=-1457/212,
6-7=-1505/310, 7-8=-1375/307,
8-10=-1000/174, 10-11=-919/241,
11-12=-905/272, 12-13=-72/0, 13-14=-47/18,
14-15=-44/37
BOT CHORD 2-25=-512/31, 24-25=-512/31,
23-24=-512/31, 22-23=-429/0,
21-22=-604/52, 19-21=-508/8,
18-19=-667/1479, 17-18=-677/1535,
16-17=-691/1558, 15-16=-303/743

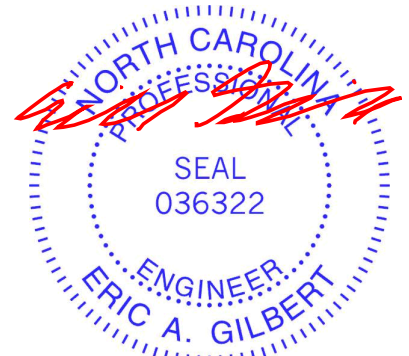
WEBS
5-23=-865/246, 5-32=-566/1683,
31-32=-605/1799, 30-31=-618/1848,
19-30=-605/1796, 8-19=-292/158,
8-29=-498/250, 28-29=-525/266,
27-28=-484/248, 16-27=-472/239,
12-16=-317/876, 12-26=-945/382,
15-26=-947/389, 13-26=-3/11, 11-27=-71/42,
10-28=-73/92, 17-28=0/101, 18-29=-66/39,
7-30=-33/135, 6-31=-259/154,
21-31=-145/124, 22-32=-114/348,
4-24=-37/67, 3-25=-193/97

NOTES (12)

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 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 259 lb uplift at joint 15, 149 lb uplift at joint 2, 186 lb uplift at joint 23, 66 lb uplift at joint 24 and 65 lb uplift at joint 25.
- 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



July 1, 2024

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



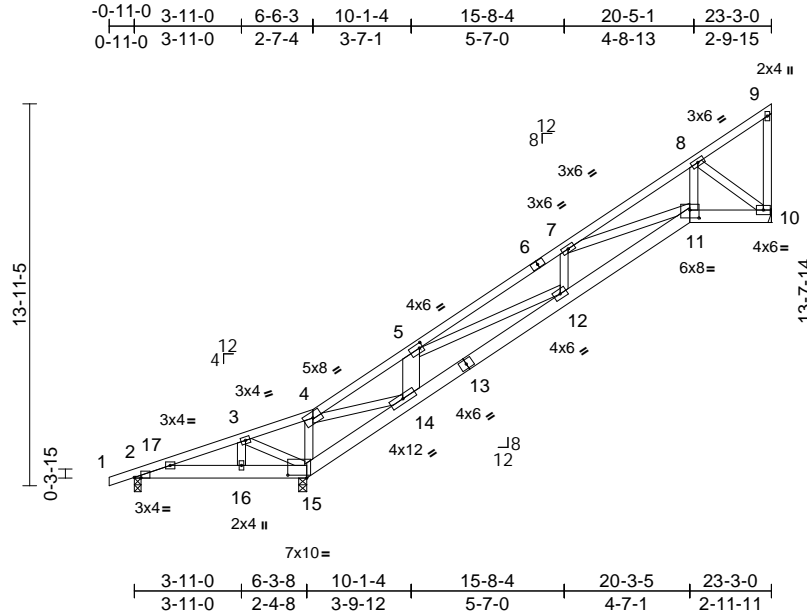
818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss T3G-2	Truss Type Jack-Closed Girder	Qty 2	Ply 2	SUPERIOR- NASH Job Reference (optional)	I66587540
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:37
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Page: 1



Scale = 1:84.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.05	12-14	>999	360	MT20 244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.11	12-14	>999	240	
TCDL	10.0	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.04	10	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.05	12-14	>999	240	
BCDL	10.0										Weight: 304 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 9-10:2x4 SP No.2, 5-14:2x8 SP 2400F 2.0E or 2x8 SP DSS

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

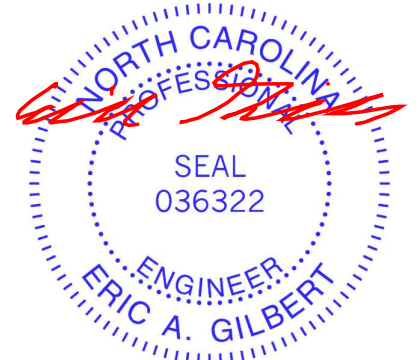
REACTIONS (size) 2=0-3-0, 10= Mechanical, 15=0-3-8
Max Horiz 2=520 (LC 12)
Max Uplift 2=-686 (LC 26), 10=-192 (LC 12), 15=-204 (LC 12)
Max Grav 2=97 (LC 12), 10=909 (LC 26), 15=3601 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-3=-460/2408, 3-4=-493/2852, 4-5=-2337/0, 5-7=-3004/101, 7-8=-1452/143, 8-9=-58/33, 9-10=-70/25
BOT CHORD 2-16=-2169/0, 15-16=-2172/0, 14-15=-3062/27, 12-14=-427/2466, 11-12=-346/2920, 10-11=-235/1071
WEBS 3-16=0/243, 3-15=-612/81, 4-15=-1647/184, 4-14=-348/4541, 5-14=-692/0, 5-12=-65/530, 7-12=-125/138, 7-11=-1282/31, 8-11=-128/1377, 8-10=-1337/295

NOTES (13)
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.

- 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.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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
- 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
- Unbalanced snow loads have been considered for this design.
- 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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 192 lb uplift at joint 10, 686 lb uplift at joint 2 and 204 lb uplift at joint 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.
- 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.

- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1676 lb down and 305 lb up at 10-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-40, 4-5=-40, 7-9=-40, 2-15=-20, 11-15=-20, 10-11=-20
Concentrated Loads (lb)
Vert: 14=-1250 (F)
Trapezoidal Loads (lb/ft)
Vert: 5=-124-to-6=-93, 6=-93-to-7=-87



July 1, 2024

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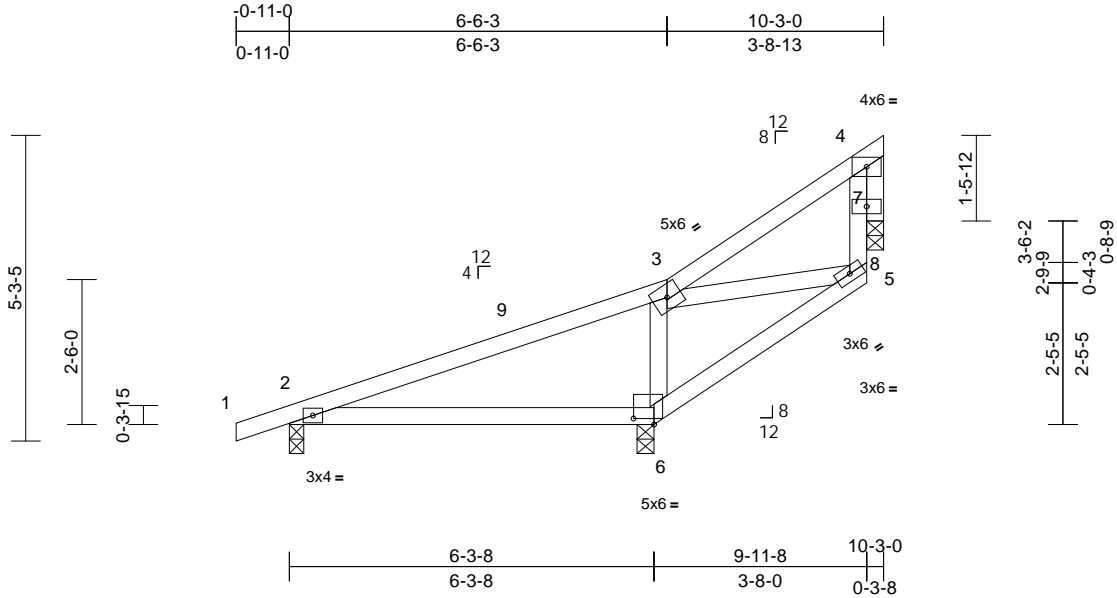
818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss T4	Truss Type Roof Special	Qty 3	Ply 1	SUPERIOR- NASH Job Reference (optional)	I66587541
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:37
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Page: 1



Scale = 1:39.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.05	2-6	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.12	2-6	>623	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	2-6	>999	240		
BCDL	10.0										Weight: 47 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.2

BRACING

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

REACTIONS

(size) 2=0-3-0, 6=0-3-8, 8=0-3-8
Max Horiz 2=178 (LC 12)
Max Uplift 2=90 (LC 8)
Max Grav 2=281 (LC 2), 6=527 (LC 2), 8=666 (LC 26)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-3=-81/106, 3-4=-195/0, 5-7=-18/54, 4-7=-18/54
BOT CHORD 2-6=-61/0, 5-6=-96/17
WEBS 3-6=-406/93, 3-5=0/142, 4-8=-698/0

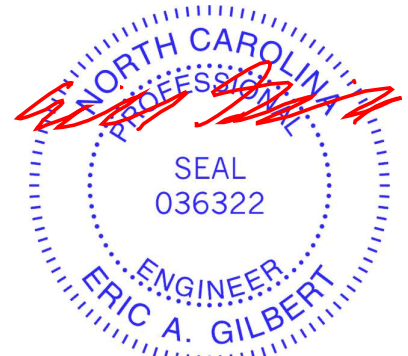
NOTES (11)

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; 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) 8 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 capable of withstanding 90 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) 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.
- 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

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-40, 3-4=-40, 2-6=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 4=-620



July 1, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



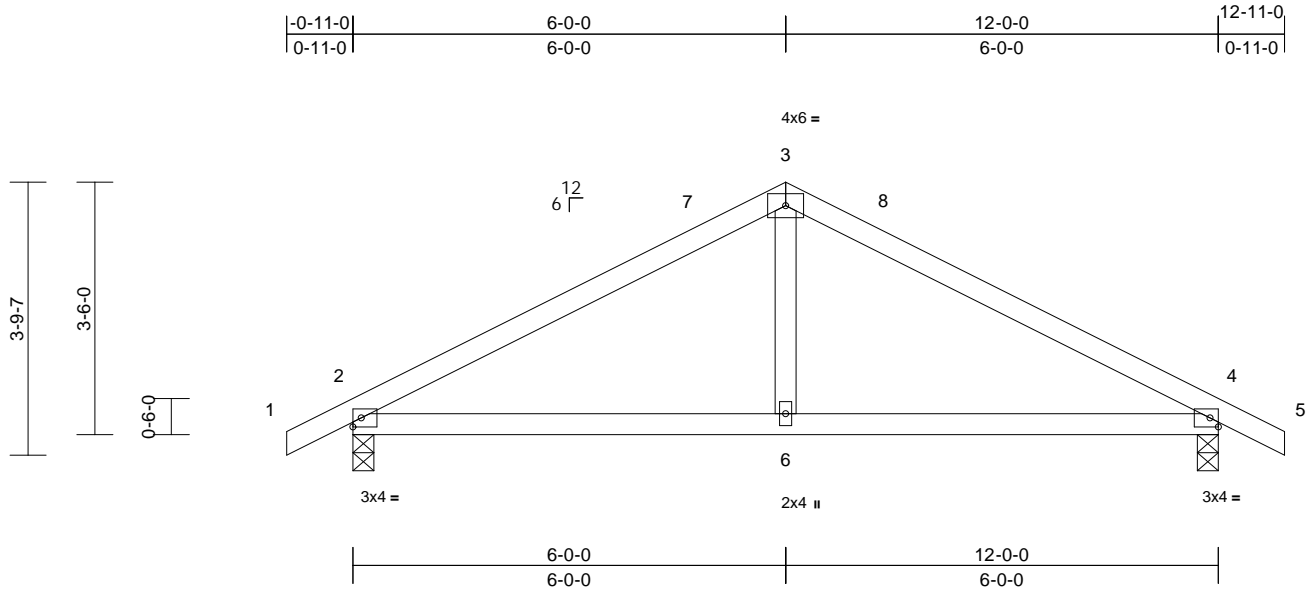
818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss T5	Truss Type Common	Qty 7	Ply 1	SUPERIOR- NASH Job Reference (optional)	166587542
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:37
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Page: 1



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	0.50	Vert(LL)	-0.03	4-6	>999	360	MT20	244/190
Snow (Pf)	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.07	4-6	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	2-6	>999	240		
BCDL	10.0										Weight: 46 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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4=0-3-8
Max Horiz 2=58 (LC 12)
Max Uplift 2=-77 (LC 12), 4=-77 (LC 13)
Max Grav 2=532 (LC 2), 4=532 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-638/74, 3-4=-638/74, 4-5=0/15
BOT CHORD 2-6=-12/488, 4-6=-12/488
WEBS 3-6=0/284

- * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 2 and 77 lb uplift at joint 4.
 - 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.
 - 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

- NOTES (10)**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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
 - 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
 - Unbalanced snow loads have been considered for this design.
 - 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.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



July 1, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



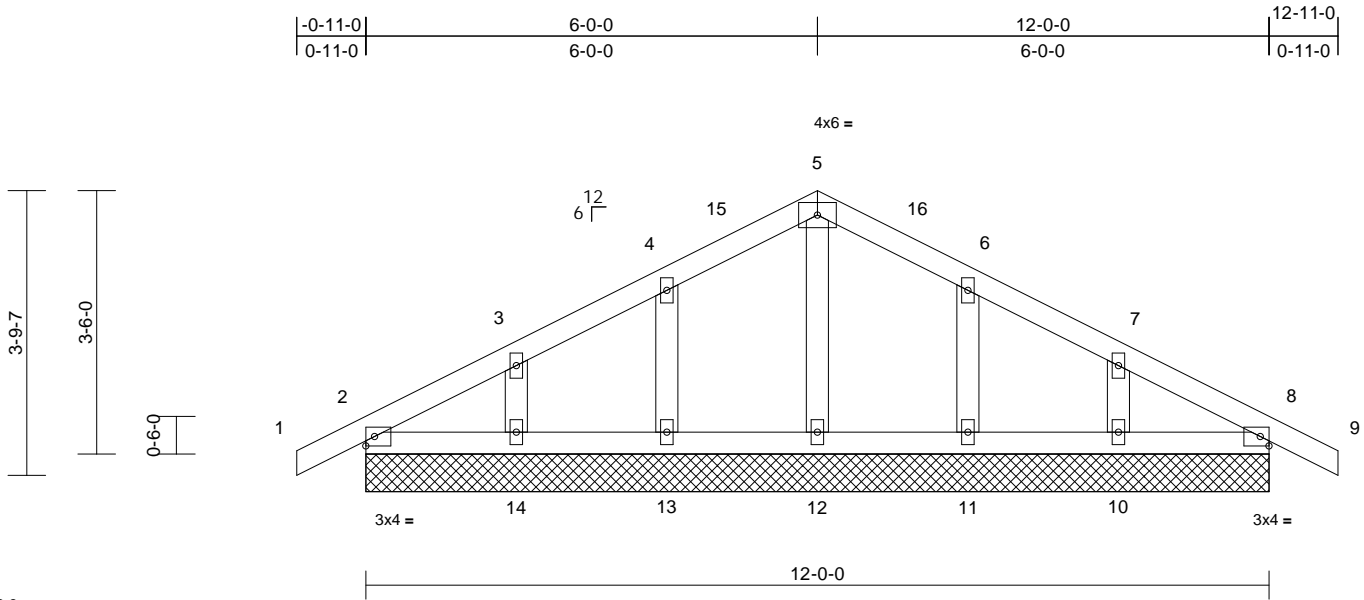
818 Soundside Road
Edenton, NC 27932

Job 3882924	Truss T5E	Truss Type Common Supported Gable	Qty 1	Ply 1	SUPERIOR- NASH Job Reference (optional)	166587543
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Jun 17 2024 Print: 8.630 S Jun 17 2024 MiTek Industries, Inc. Mon Jul 01 07:41:37
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Page: 1



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	0.06	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)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 54 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=12-0-0, 8=12-0-0, 10=12-0-0, 11=12-0-0, 12=12-0-0, 13=12-0-0, 14=12-0-0
Max Horiz 2=58 (LC 12)
Max Uplift 2=-16 (LC 13), 8=-22 (LC 13), 10=-52 (LC 13), 11=-52 (LC 13), 13=-53 (LC 12), 14=-53 (LC 12)
Max Grav 2=141 (LC 2), 8=141 (LC 2), 10=158 (LC 2), 11=169 (LC 31), 12=137 (LC 2), 13=169 (LC 30), 14=158 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

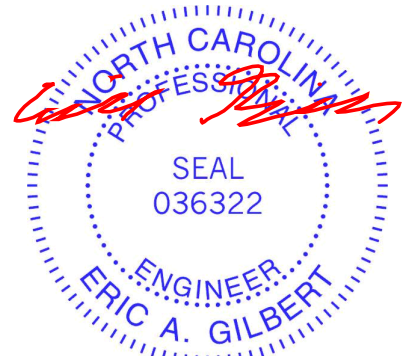
TOP CHORD 1-2=0/15, 2-3=-69/39, 3-4=-42/57, 4-5=-43/81, 5-6=-43/74, 6-7=-39/34, 7-8=-50/21, 8-9=0/15
BOT CHORD 2-14=-1/53, 13-14=-1/53, 12-13=-1/53, 11-12=-1/53, 10-11=-1/53, 8-10=-1/53
WEBS 5-12=-97/0, 4-13=-130/76, 3-14=-116/78, 6-11=-130/76, 7-10=-116/76

NOTES (14)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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

- 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.
- 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
- Unbalanced snow loads have been considered for this design.
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0-0 tall by 1'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2, 22 lb uplift at joint 8, 53 lb uplift at joint 13, 53 lb uplift at joint 14, 52 lb uplift at joint 11 and 52 lb uplift at joint 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.
- 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



July 1, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

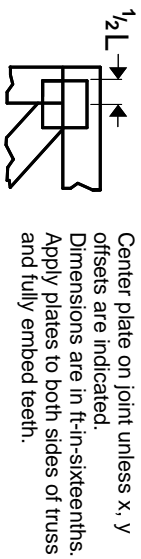
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

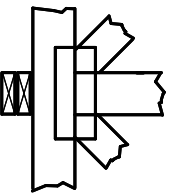
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

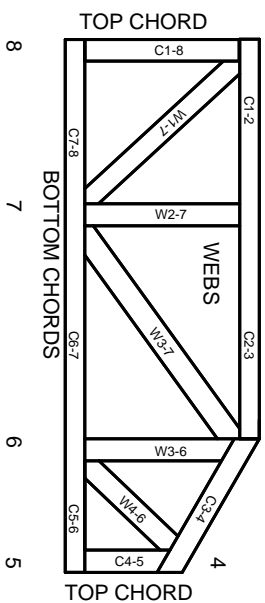
Industry Standards:

ANSI/TP1: 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



1 TOP CHORDS
2 Joint ID
3 typ.



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/TP1 section 6.3. These truss designs rely on Lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023