

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Q2400926-27
Value Build Homes - Carter

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carolina Structural Systems, LLC.

Pages or sheets covered by this seal: I65417032 thru I65417072

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

North Carolina COA: C-0844



May 8, 2024

Tony Miller

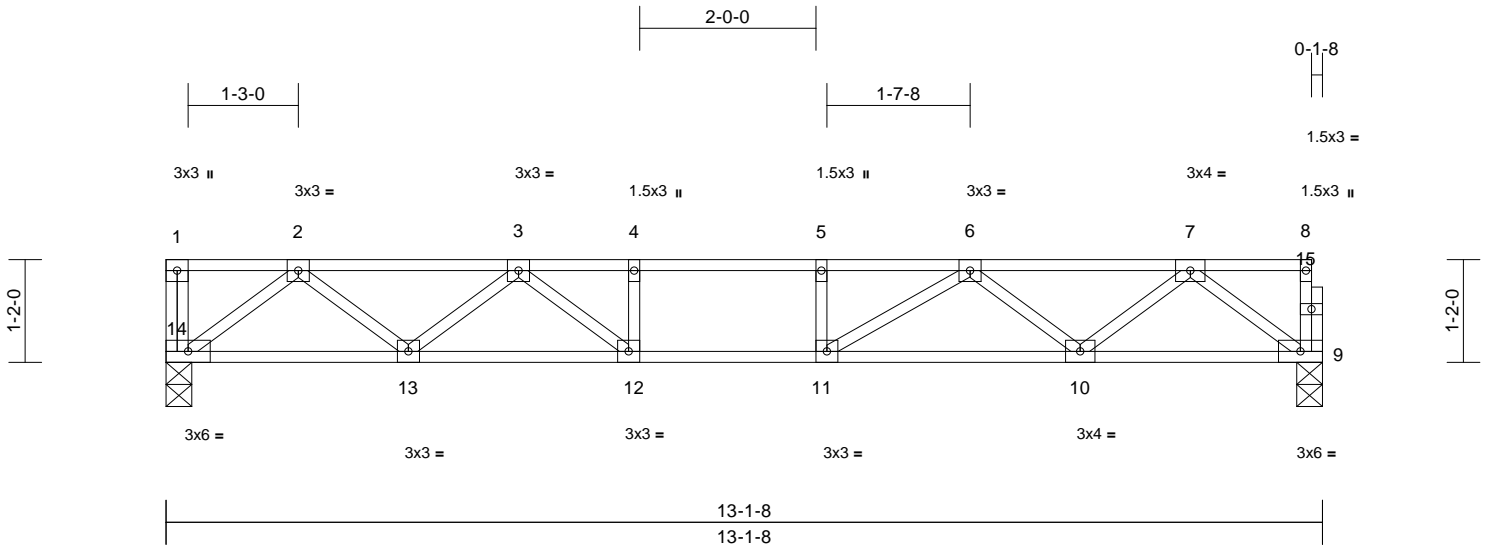
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 Q2400926-27	Truss 2F01	Truss Type Floor	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417032
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:12
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Page: 1



Scale = 1:26.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.13	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.17	10-11	>896	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 66 lb	FT = 20%F, 11%E

LUMBER

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

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) 9=0-3-8, 14=0-3-8
Max Grav 9=702 (LC 1), 14=708 (LC 1)

- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-14=-39/0, 8-9=-37/0, 1-2=0/0, 2-3=-1382/0, 3-4=-2147/0, 4-5=-2147/0, 5-6=-2147/0, 6-7=-1390/0, 7-8=-2/0
 - BOT CHORD 13-14=0/869, 12-13=0/1868, 11-12=0/2147, 10-11=0/1869, 9-10=0/869
 - WEBS 7-9=-1087/0, 2-14=-1090/0, 7-10=0/679, 2-13=0/668, 6-10=-623/0, 3-13=-632/0, 6-11=0/534, 3-12=0/556, 4-12=-258/0, 5-11=-211/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.2 .
- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 8, 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)



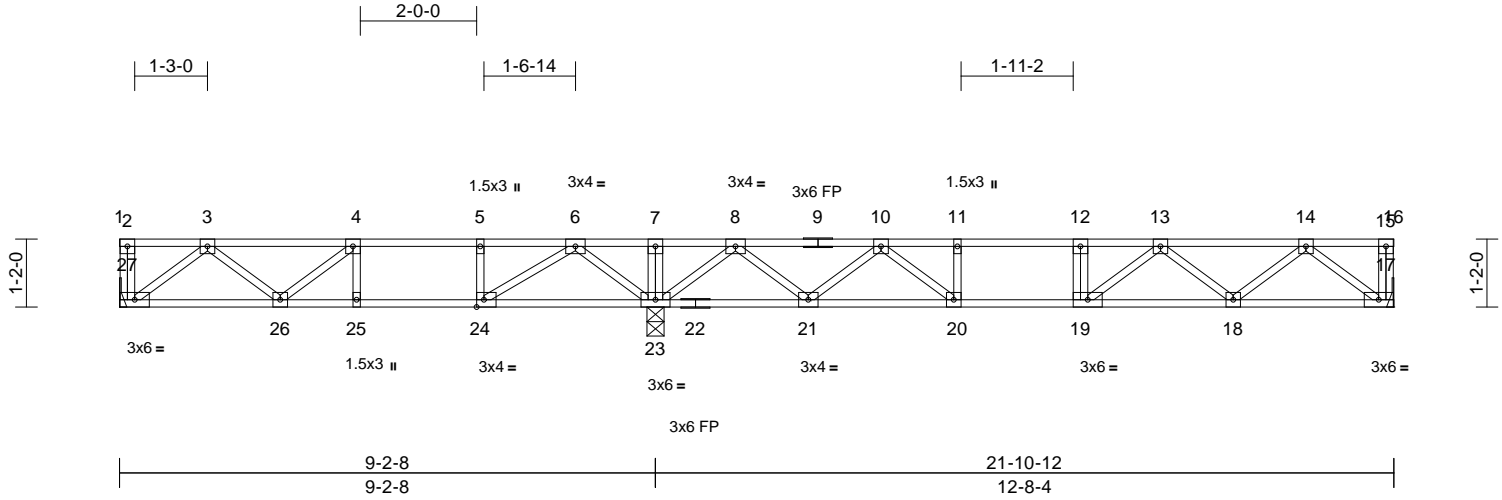
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2F04	Truss Type Floor	Qty 7	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417035
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:14
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Page: 1



Scale = 1:39.6

Plate Offsets (X, Y): [24:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.11	18-19	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.76	Vert(CT)	-0.15	18-19	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.03	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%F, 11%E

LUMBER

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

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) 17= Mechanical, 23=0-3-8, 27= Mechanical
Max Grav 17=662 (LC 7), 23=1300 (LC 1), 27=482 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-27=-38/0, 15-17=-53/0, 1-2=0/0, 2-3=0/0, 3-4=-808/0, 4-5=-956/19, 5-6=-956/19, 6-7=0/739, 7-8=0/739, 8-10=-1038/0, 10-11=-1849/0, 11-12=-1849/0, 12-13=-1849/0, 13-14=-1267/0, 14-15=0/0, 15-16=0/0
BOT CHORD 26-27=0/583, 25-26=-19/956, 24-25=-19/956, 23-24=-317/427, 21-23=0/504, 20-21=0/1543, 19-20=0/1849, 18-19=0/1683, 17-18=0/805
WEBS 7-23=-144/0, 3-27=-732/0, 6-23=-812/0, 3-26=-12/293, 6-24=0/784, 4-26=-188/124, 4-25=-141/0, 14-17=-1010/0, 8-23=-1136/0, 14-18=0/601, 8-21=0/732, 13-18=-542/0, 10-21=-717/0, 13-19=0/356, 10-20=0/556, 11-20=-258/0, 12-19=-172/0, 5-24=-306/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 MT20 unless otherwise indicated.
- 3) Bearings are assumed to be: , Joint 23 SP No.2 .
- 4) Refer to girder(s) for truss to truss connections.

- 5) 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.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 7) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 8, 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)



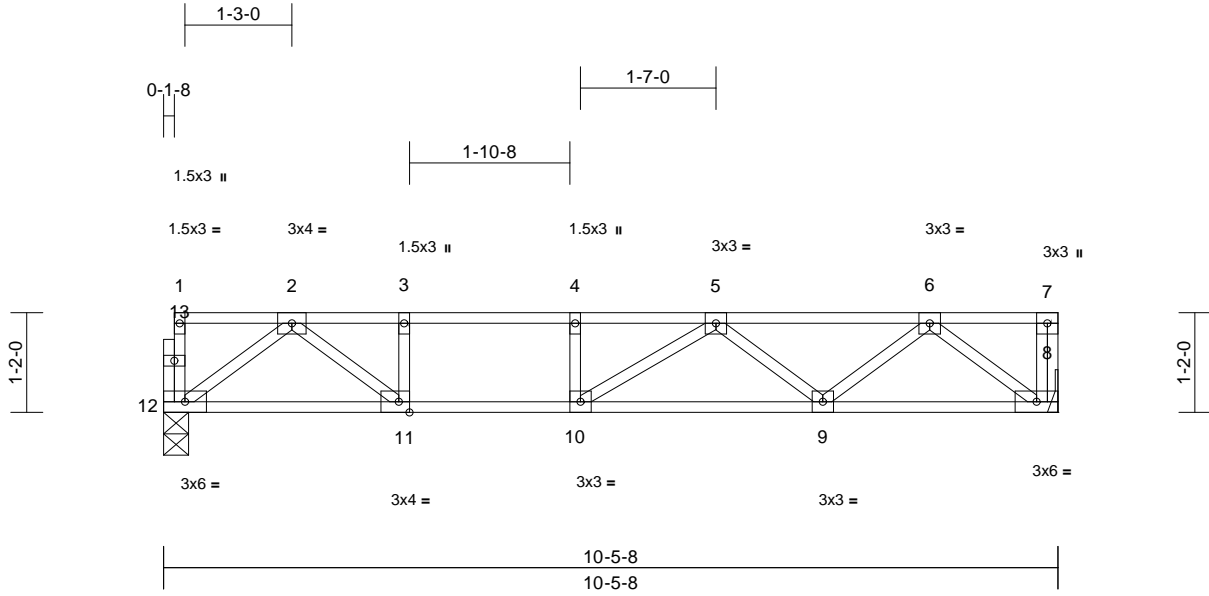
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2F05	Truss Type Floor	Qty 2	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417036
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:14
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Page: 1



Scale = 1:26.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.87	Vert(LL)	-0.14	9-10	>871	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.19	9-10	>649	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 53 lb	FT = 20%F, 11%E

LUMBER

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

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) 8= Mechanical, 12=0-3-8
 Max Grav 8=561 (LC 1), 12=555 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-12=-74/0, 7-8=-43/0, 1-2=-4/0, 2-3=-1243/0, 3-4=-1243/0, 4-5=-1243/0, 5-6=-1041/0, 6-7=0/0
 BOT CHORD 11-12=0/652, 10-11=0/1243, 9-10=0/1327, 8-9=0/678
 WEBS 6-8=-851/0, 2-12=-813/0, 6-9=0/472, 2-11=0/766, 5-9=-373/0, 5-10=-185/174, 4-10=-89/17, 3-11=-361/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Bearings are assumed to be: Joint 12 SP No.2 .
- 3) Refer to girder(s) for truss to truss connections.
- 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.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 8, 2024

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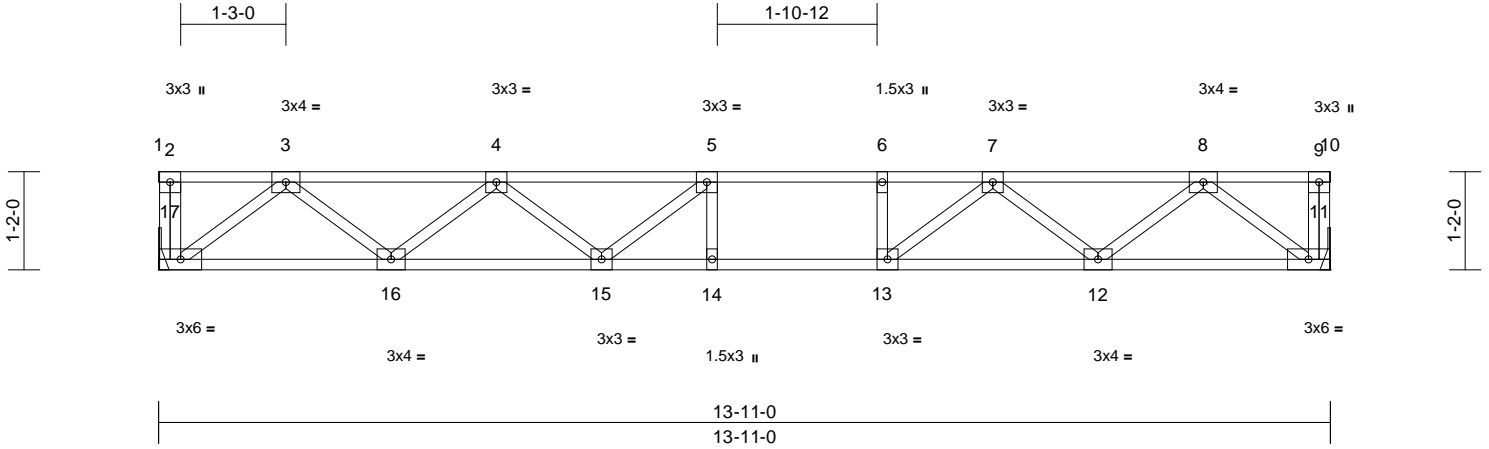
818 Soundside Road
 Edenton, NC 27932

Job Q2400926-27	Truss 2F06	Truss Type Floor	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417037
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:14
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Page: 1



Scale = 1:27.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.15	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(CT)	-0.21	14-15	>792	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 70 lb	FT = 20%F, 11%E

LUMBER

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

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) 11= Mechanical, 17= Mechanical
Max Grav 11=764 (LC 1), 17=764 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-17=-58/0, 9-11=-50/0, 1-2=0/0, 2-3=0/0, 3-4=-1498/0, 4-5=-2265/0, 5-6=-2403/0, 6-7=-2403/0, 7-8=-1479/0, 8-9=0/0, 9-10=0/0
BOT CHORD 16-17=0/914, 15-16=0/2053, 14-15=0/2403, 13-14=0/2403, 12-13=0/2031, 11-12=0/921
WEBS 8-11=-1155/0, 3-17=-1147/0, 8-12=0/727, 3-16=0/760, 7-12=-718/0, 4-16=-723/0, 7-13=0/649, 4-15=0/355, 5-15=-386/44, 5-14=-159/71, 6-13=-257/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 8, 2024

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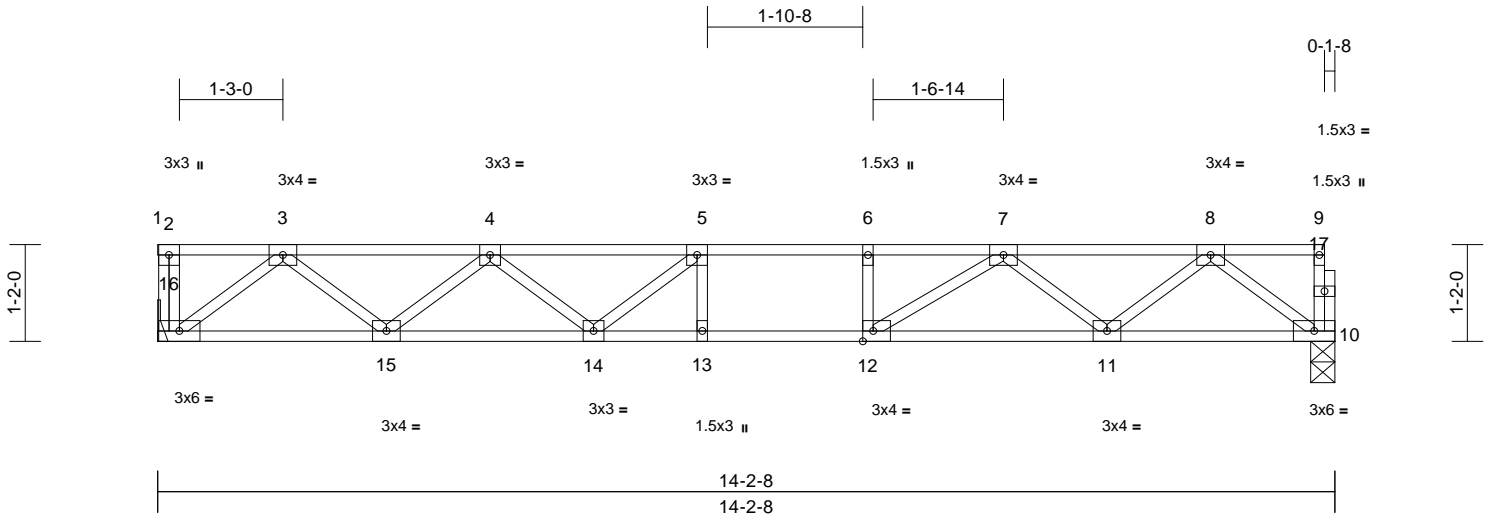
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2F07	Truss Type Floor	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417038
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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Page: 1



Scale = 1:27.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.57	Vert(LL)	-0.16	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.79	Vert(CT)	-0.21	13-14	>798	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.04	10	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 71 lb	FT = 20%F, 11%E

LUMBER

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

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.

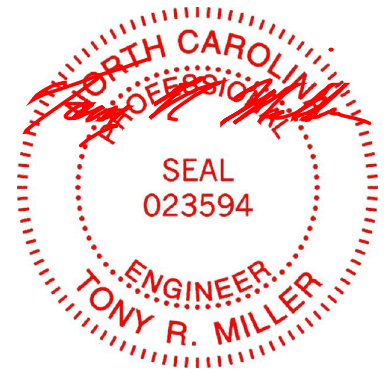
REACTIONS (size) 10=0-3-8, 16= Mechanical
 Max Grav 10=761 (LC 1), 16=781 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 2-16=-58/0, 9-10=-36/0, 1-2=0/0, 2-3=0/0, 3-4=-1539/0, 4-5=-2347/0, 5-6=-2523/0, 6-7=-2523/0, 7-8=-1526/0, 8-9=-2/0
 BOT CHORD 15-16=0/937, 14-15=0/2112, 13-14=0/2523, 12-13=0/2523, 11-12=0/2090, 10-11=0/943
 WEBS 8-10=-1181/0, 3-16=-1175/0, 8-11=0/758, 3-15=0/784, 7-11=-735/0, 4-15=-746/0, 7-12=0/685, 4-14=0/380, 5-14=-430/23, 5-13=-152/90, 6-12=-231/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Bearings are assumed to be: , Joint 10 SP No.1 .
- 3) Refer to girder(s) for truss connections.
- 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.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 8, 2024

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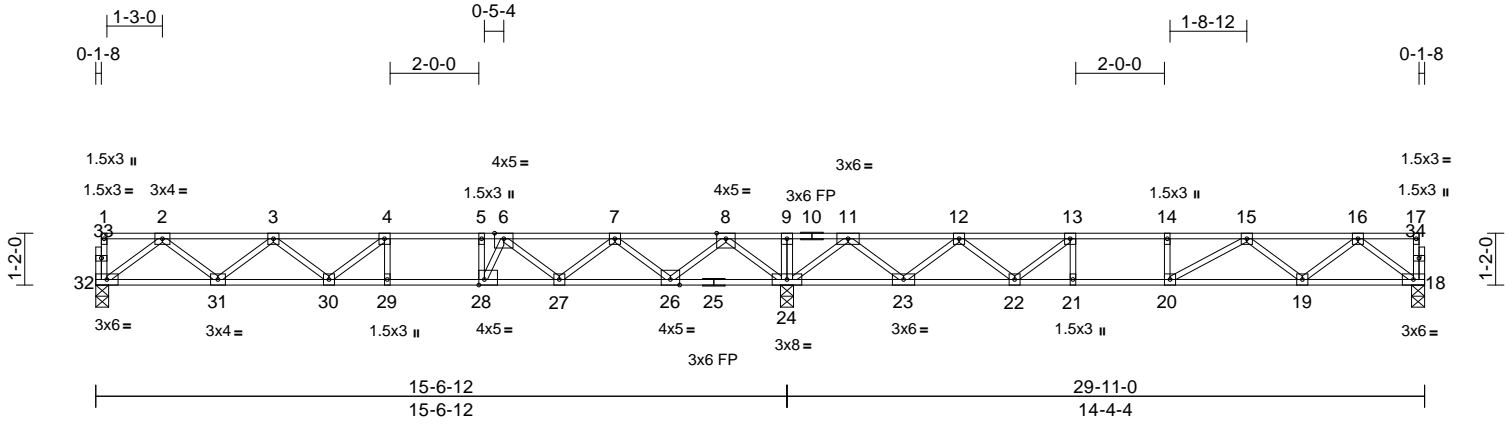
818 Soundside Road
 Edenton, NC 27932

Job Q2400926-27	Truss 2F08	Truss Type Floor	Qty 5	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417039
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:14
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Page: 1



Scale = 1:51.9

Plate Offsets (X, Y): [28:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	-0.16	29-30	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.22	29-30	>837	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.04	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 148 lb	FT = 20%F, 11%E

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

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) 18=0-3-8, 24=0-3-8, 32=0-3-8
Max Grav 18=679 (LC 4), 24=1938 (LC 1), 32=746 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-32=-44/0, 17-18=-39/0, 1-2=-3/0, 2-3=-1502/0, 3-4=-2274/0, 4-5=-2417/0, 5-6=-2417/0, 6-7=-1787/143, 7-8=-558/621, 8-9=0/2161, 9-11=0/2161, 11-12=-490/732, 12-13=-1579/243, 13-14=-2004/0, 14-15=-2004/0, 15-16=-1337/0, 16-17=-2/0
BOT CHORD 31-32=0/917, 30-31=0/2060, 29-30=0/2417, 28-29=0/2417, 27-28=0/2258, 26-27=-348/1334, 24-26=-1013/0, 23-24=-1131/0, 22-23=-472/1185, 21-22=0/2004, 20-21=0/2004, 19-20=0/1784, 18-19=0/838
WEBS 9-24=-113/0, 2-32=-1147/0, 8-24=-1529/0, 2-31=0/763, 8-26=0/1135, 3-31=-725/0, 7-26=-1087/0, 3-30=-25/279, 7-27=0/664, 4-30=-221/181, 6-27=-720/0, 16-18=-1049/0, 11-24=-1444/0, 16-19=0/649, 11-23=0/1036, 15-19=-582/0, 12-23=-990/0, 15-20=-166/254, 12-22=0/625, 13-22=-801/0, 13-21=0/230, 14-20=-135/41, 4-29=-205/8, 5-28=-522/0, 6-28=0/810

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 3x3 MT20 unless otherwise indicated.
 - 3) All bearings are assumed to be SP No.1 .
 - 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.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 6) CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard



May 8, 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)



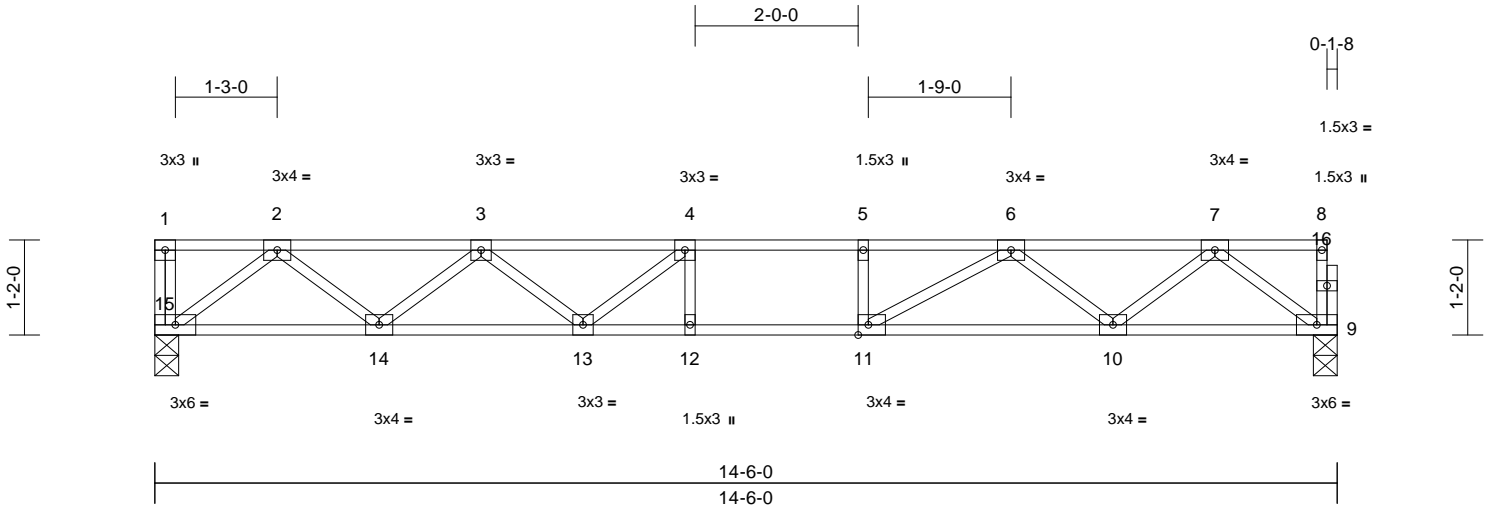
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2F09	Truss Type Floor	Qty 2	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417040
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:14
ID:NOAZHVQ9lp9AyQYLAKSOVzKKSH-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwCDoi7J4zJC?f

Page: 1



Scale = 1:28.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.17	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.23	12-13	>752	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 72 lb	FT = 20%F, 11%E

LUMBER

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

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) 9=0-3-8, 15=0-3-8

Max Grav 9=778 (LC 1), 15=784 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-15=-46/0, 8-9=-37/0, 1-2=0/0, 2-3=-1582/0, 3-4=-2430/0, 4-5=-2636/0, 5-6=-2636/0, 6-7=-1570/0, 7-8=-2/0
- BOT CHORD 14-15=0/960, 13-14=0/2173, 12-13=0/2636, 11-12=0/2636, 10-11=0/2152, 9-10=0/965
- WEBS 7-9=-1209/0, 2-15=-1205/0, 7-10=0/787, 2-14=0/809, 6-10=-758/0, 3-14=-769/0, 6-11=0/734, 3-13=0/407, 4-13=-472/5, 4-12=-150/103, 5-11=-232/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.1 .
- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

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.

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)



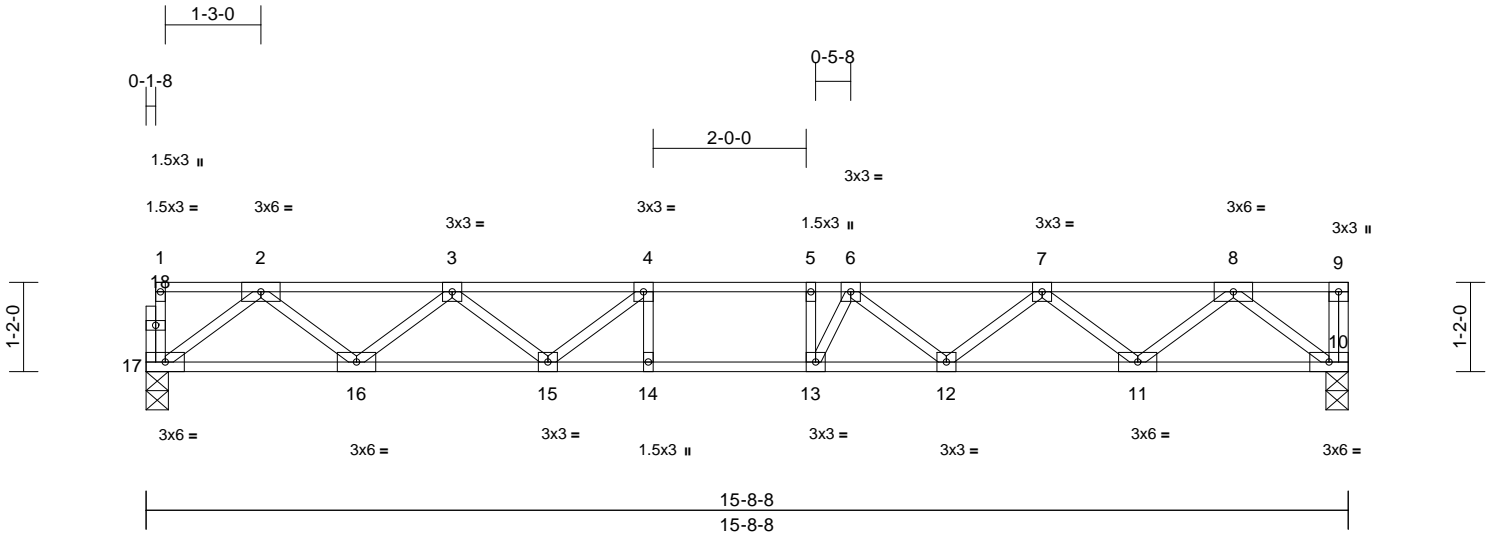
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2F10	Truss Type Floor	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417041
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:14
ID:vT8cez0QOfqu5PedHxcC2tzKKS1-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:30.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.18	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.76	Vert(CT)	-0.25	13-14	>729	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.05	10	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 79 lb	FT = 20%F, 11%E

LUMBER **LOAD CASE(S)** Standard

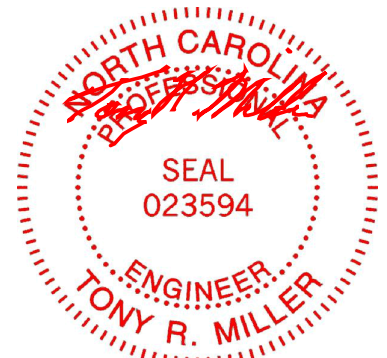
- TOP CHORD 2x4 SP No.2(flat)
- BOT CHORD 2x4 SP No.1(flat)
- WEBS 2x4 SP No.3(flat)
- OTHERS 2x4 SP No.3(flat)

- 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) 10=0-3-8, 17=0-3-8
Max Grav 10=850 (LC 1), 17=844 (LC 1)

- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-17=-41/0, 9-10=-42/0, 1-2=-2/0, 2-3=-1747/0, 3-4=-2758/0, 4-5=-3112/0, 5-6=-3112/0, 6-7=-2758/0, 7-8=-1747/0, 8-9=0/0
 - BOT CHORD 16-17=0/1050, 15-16=0/2408, 14-15=0/3112, 13-14=0/3112, 12-13=0/3076, 11-12=0/2411, 10-11=0/1050
 - WEBS 8-10=-1317/0, 2-17=-1314/0, 8-11=0/908, 2-16=0/907, 7-11=-864/0, 3-16=-861/0, 7-12=0/452, 3-15=0/508, 6-12=-456/0, 4-15=-617/0, 4-14=-96/155, 5-13=-322/114, 6-13=-239/489

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 3x3 MT20 unless otherwise indicated.
 - 3) All bearings are assumed to be SP No.1 .
 - 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.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 6) CAUTION, Do not erect truss backwards.



May 8, 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)



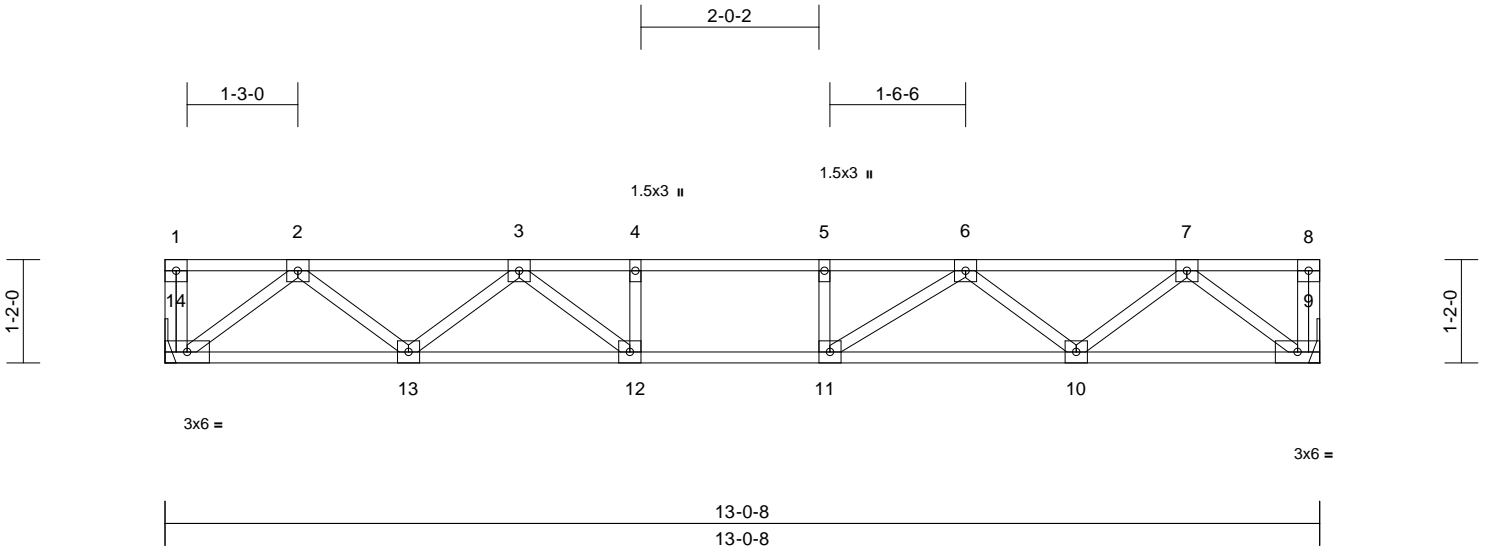
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2F11	Truss Type Floor	Qty 13	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417042
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:14
ID: onRzczUGRLcVfFYxVwl6auzKKRR-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:26

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.55	Vert(LL)	-0.13	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.71	Vert(CT)	-0.16	10-11	>937	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 66 lb	FT = 20%F, 11%E

LUMBER

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

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) 9= Mechanical, 14= Mechanical
Max Grav 9=704 (LC 1), 14=704 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-39/0, 8-9=-41/0, 1-2=0/0, 2-3=-1372/0, 3-4=-2119/0, 4-5=-2119/0, 5-6=-2119/0, 6-7=-1378/0, 7-8=0/0
BOT CHORD 13-14=0/863, 12-13=0/1850, 11-12=0/2119, 10-11=0/1851, 9-10=0/863
WEBS 7-9=-1083/0, 2-14=-1083/0, 7-10=0/669, 2-13=0/662, 6-10=-616/0, 3-13=-623/0, 6-11=0/526, 3-12=0/544, 4-12=-253/0, 5-11=-217/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 MT20 unless otherwise indicated.
- 3) Refer to girder(s) for truss to truss connections.
- 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.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 8, 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)



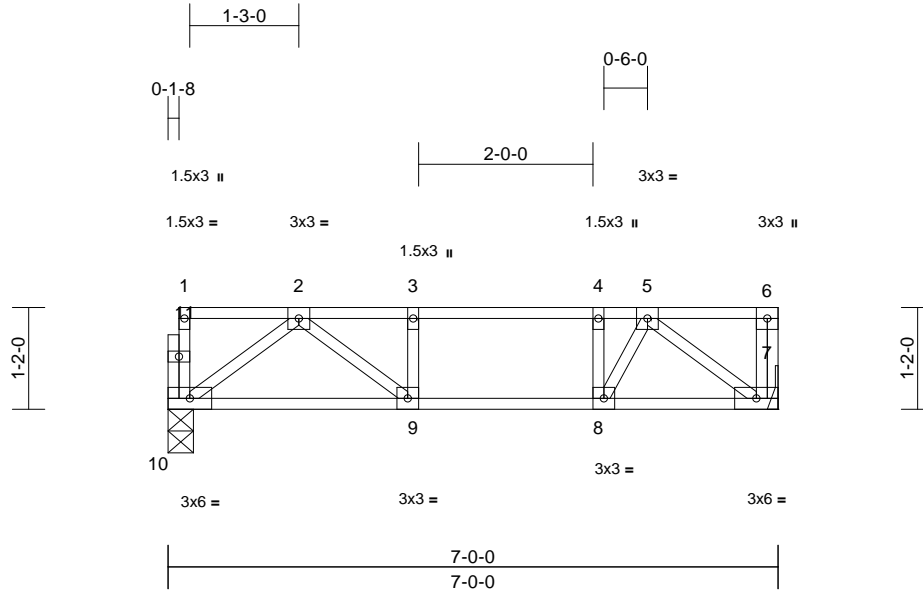
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2F12	Truss Type Floor	Qty 2	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417043
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:14
ID:sgram5fgvyVMYcPta3dh2zKKRC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:26.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.03	9-10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.31	Vert(CT)	-0.05	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 37 lb	FT = 20%F, 11%E

LUMBER

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

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) 7= Mechanical, 10=0-3-8
 Max Grav 7=371 (LC 1), 10=365 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-51/0, 6-7=-63/0, 1-2=-3/0, 2-3=-568/0,
 3-4=-568/0, 4-5=-568/0, 5-6=0/0
 BOT CHORD 9-10=0/394, 8-9=0/568, 7-8=0/407
 WEBS 5-7=-511/0, 2-10=-491/0, 5-8=0/408,
 2-9=0/274, 3-9=-141/0, 4-8=-303/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Bearings are assumed to be: Joint 10 SP No.2 .
- 3) Refer to girder(s) for truss to truss connections.
- 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.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 8, 2024

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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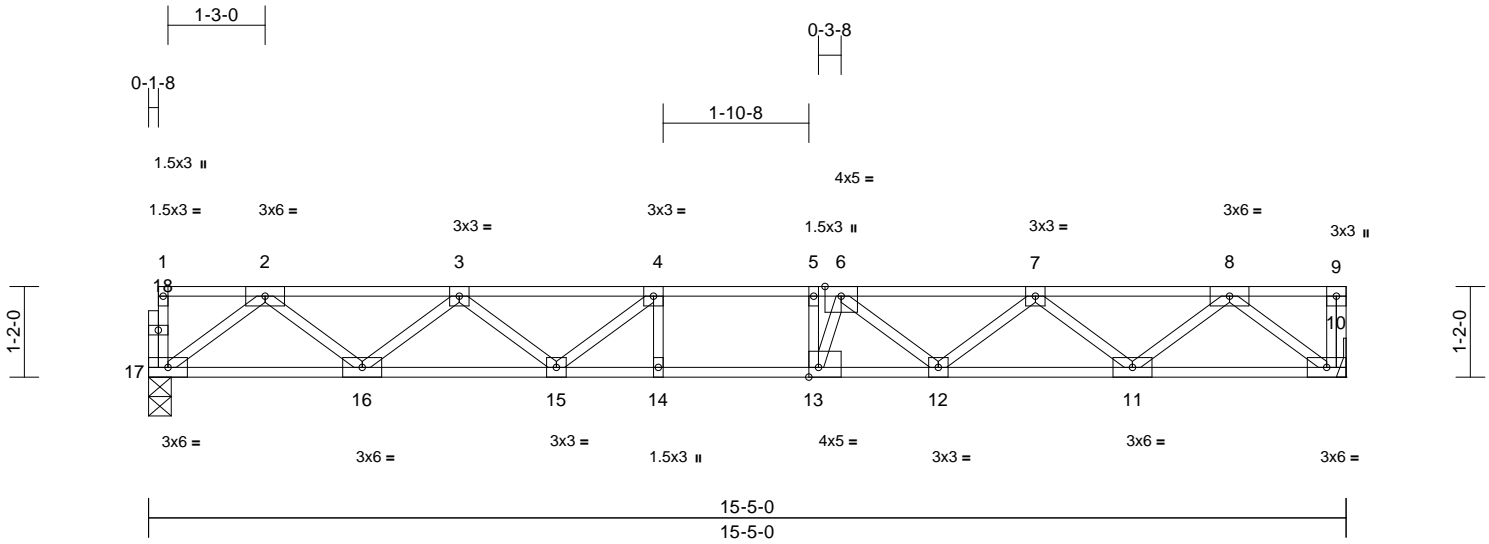
818 Soundside Road
 Edenton, NC 27932

Job Q2400926-27	Truss 2F13	Truss Type Floor	Qty 2	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417044
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:15
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Page: 1



Scale = 1:29.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.18	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.99	Vert(CT)	-0.25	13-14	>731	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.05	10	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 78 lb	FT = 20%F, 11%E

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

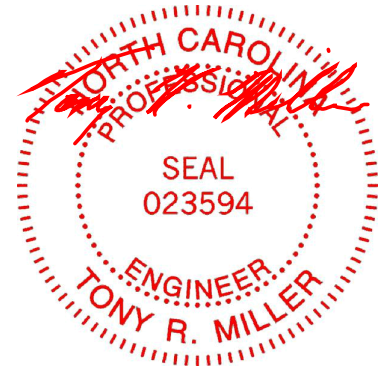
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 10= Mechanical, 17=0-3-8
Max Grav 10=834 (LC 1), 17=828 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-17=-41/0, 9-10=-42/0, 1-2=-2/0, 2-3=-1707/0, 3-4=-2679/0, 4-5=-3001/0, 5-6=-3001/0, 6-7=-2680/0, 7-8=-1707/0, 8-9=0/0
BOT CHORD 16-17=0/1028, 15-16=0/2351, 14-15=0/3001, 13-14=0/3001, 12-13=0/2984, 11-12=0/2351, 10-11=0/1029
WEBS 8-10=-1291/0, 2-17=-1287/0, 8-11=0/883, 2-16=0/884, 7-11=-838/0, 3-16=-839/0, 7-12=0/428, 3-15=0/483, 6-12=-452/0, 4-15=-569/0, 4-14=-92/134, 5-13=-397/215, 6-13=-322/539

6) CAUTION, Do not erect truss backwards.
LOAD CASE(S) Standard

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) Bearings are assumed to be: Joint 17 SP No.2 .
 - 3) Refer to girder(s) for truss to truss connections.
 - 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.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



May 8, 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)



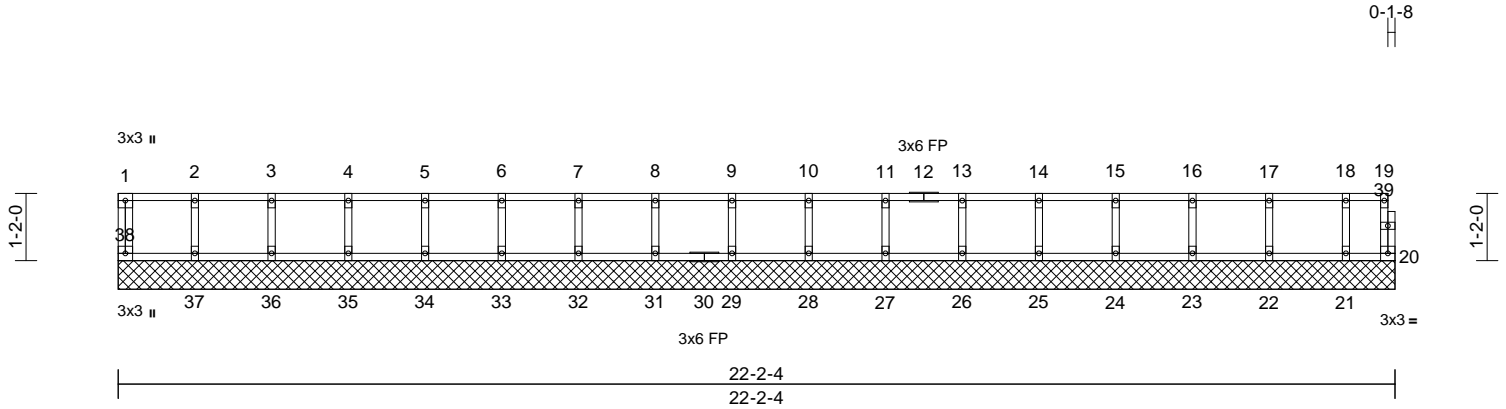
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2K01	Truss Type Floor Supported Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417045
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:15
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Page: 1



Scale = 1:40

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	20	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R						Weight: 93 lb	FT = 20%F, 11%E

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

WEBS	
2-37	=-133/0, 3-36=-134/0, 4-35=-133/0,
5-34	=-133/0, 6-33=-133/0, 7-32=-133/0,
8-31	=-133/0, 9-29=-133/0, 10-28=-133/0,
11-27	=-133/0, 13-26=-133/0, 14-25=-133/0,
15-24	=-134/0, 16-23=-132/0, 17-22=-138/0,
18-21	=-108/0

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.

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2.
- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

REACTIONS	(size)	
		20=22-2-4, 21=22-2-4, 22=22-2-4, 23=22-2-4, 24=22-2-4, 25=22-2-4, 26=22-2-4, 27=22-2-4, 28=22-2-4, 29=22-2-4, 31=22-2-4, 32=22-2-4, 33=22-2-4, 34=22-2-4, 35=22-2-4, 36=22-2-4, 37=22-2-4, 38=22-2-4
Max Grav		20=28 (LC 1), 21=115 (LC 1), 22=153 (LC 1), 23=145 (LC 1), 24=147 (LC 1), 25=147 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 29=147 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=148 (LC 1), 38=58 (LC 1)

LOAD CASE(S) Standard

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-38=-54/0, 19-20=-22/0, 1-2=-6/0, 2-3=-6/0, 3-4=-6/0, 4-5=-6/0, 5-6=-6/0, 6-7=-6/0, 7-8=-6/0, 8-9=-6/0, 9-10=-6/0, 10-11=-6/0, 11-13=-6/0, 13-14=-6/0, 14-15=-6/0, 15-16=-6/0, 16-17=-6/0, 17-18=-6/0, 18-19=-6/0
BOT CHORD	37-38=0/6, 36-37=0/6, 35-36=0/6, 34-35=0/6, 33-34=0/6, 32-33=0/6, 31-32=0/6, 29-31=0/6, 28-29=0/6, 27-28=0/6, 26-27=0/6, 25-26=0/6, 24-25=0/6, 23-24=0/6, 22-23=0/6, 21-22=0/6, 20-21=0/6



May 8, 2024

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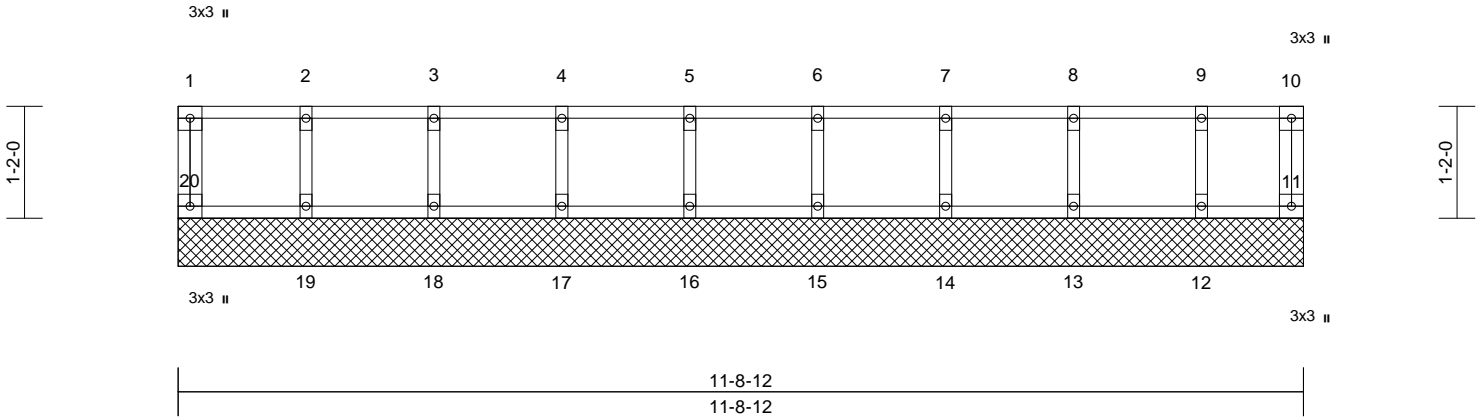
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2K02	Truss Type Floor Supported Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417046
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:15
ID:kVQtyD2NQUES?LSaeJ4lvzKKLX-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:24

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 51 lb	FT = 20%F, 11%E

LUMBER

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

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)

11=11-8-12, 12=11-8-12,
 13=11-8-12, 14=11-8-12,
 15=11-8-12, 16=11-8-12,
 17=11-8-12, 18=11-8-12,
 19=11-8-12, 20=11-8-12
 Max Grav 11=47 (LC 1), 12=126 (LC 1),
 13=151 (LC 1), 14=145 (LC 1),
 15=147 (LC 1), 16=147 (LC 1),
 17=147 (LC 1), 18=147 (LC 1),
 19=146 (LC 1), 20=60 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

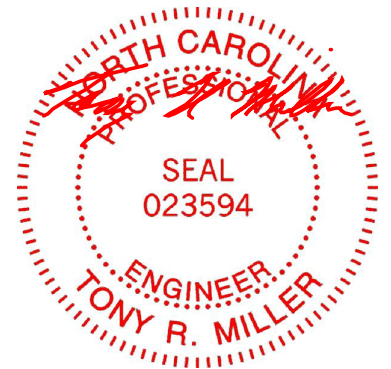
TOP CHORD 1-20=-55/0, 10-11=-41/0, 1-2=-8/0, 2-3=-8/0,
 3-4=-8/0, 4-5=-8/0, 5-6=-8/0, 6-7=-8/0,
 7-8=-8/0, 8-9=-8/0, 9-10=-8/0
 BOT CHORD 19-20=0/8, 18-19=0/8, 17-18=0/8, 16-17=0/8,
 15-16=0/8, 14-15=0/8, 13-14=0/8, 12-13=0/8,
 11-12=0/8
 WEBS 2-19=-132/0, 3-18=-134/0, 4-17=-133/0,
 5-16=-133/0, 6-15=-134/0, 7-14=-132/0,
 8-13=-137/0, 9-12=-117/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2 .

- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 8, 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)



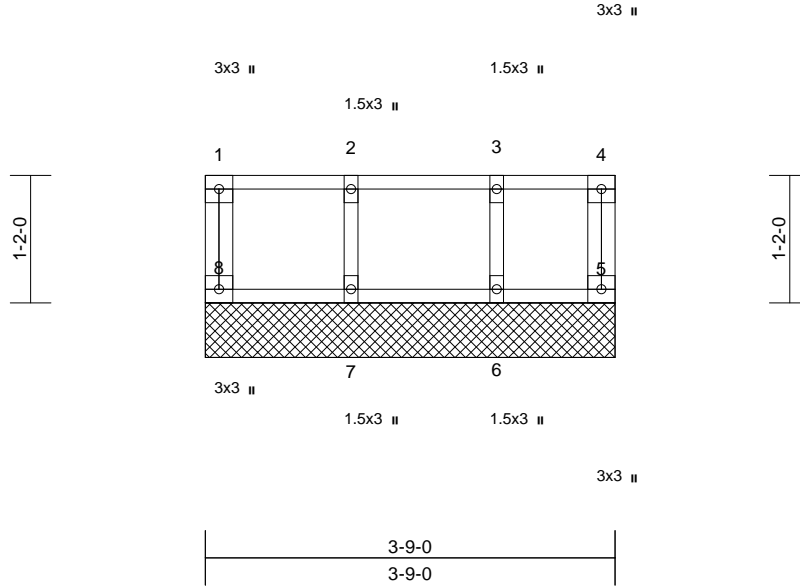
818 Soundside Road
 Edenton, NC 27932

Job Q2400926-27	Truss 2K03	Truss Type Floor Supported Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417047
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:15
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Page: 1



Scale = 1:21.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R						Weight: 19 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=3-9-0, 6=3-9-0, 7=3-9-0, 8=3-9-0
 Max Grav 5=48 (LC 1), 6=127 (LC 1), 7=150 (LC 1), 8=60 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

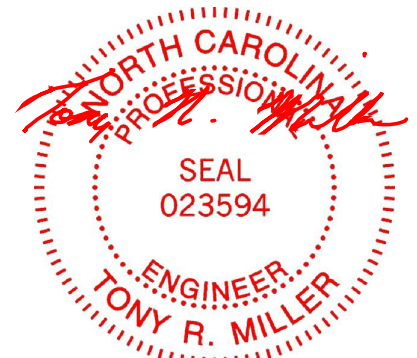
TOP CHORD 1-8=-55/0, 4-5=-42/0, 1-2=-8/0, 2-3=-8/0, 3-4=-8/0

BOT CHORD 7-8=0/8, 6-7=0/8, 5-6=0/8
 WEBS 2-7=-135/0, 3-6=-118/0

NOTES

- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2.
- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 8, 2024

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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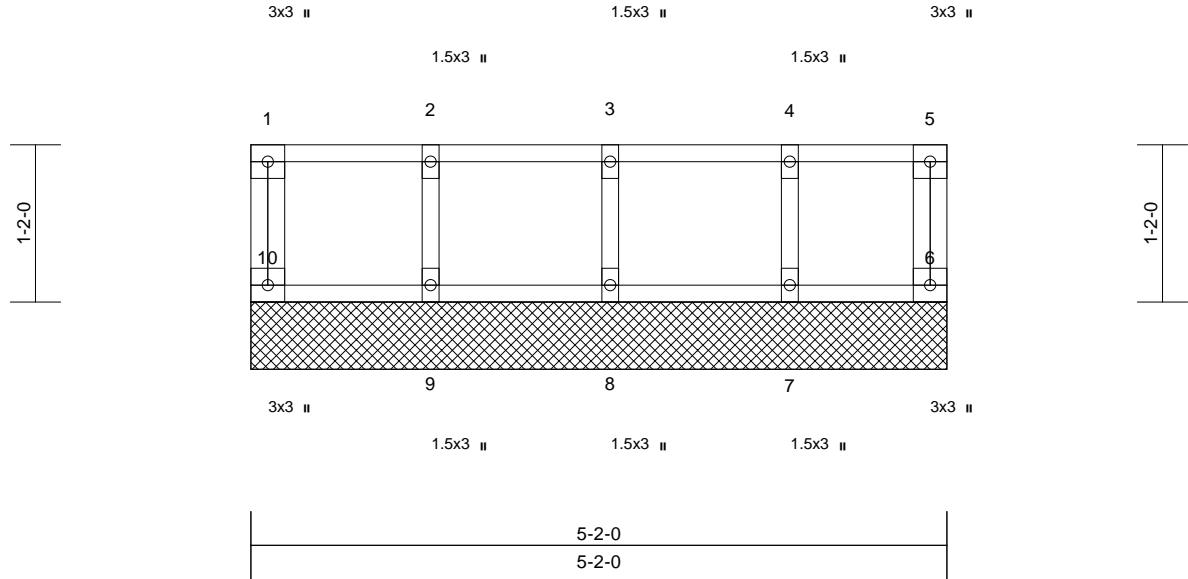
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2K04	Truss Type Floor Supported Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417048
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:15
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Page: 1



Scale = 1:17.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	6	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R						Weight: 25 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=5-2-0, 7=5-2-0, 8=5-2-0, 9=5-2-0, 10=5-2-0
 Max Grav 6=54 (LC 1), 7=131 (LC 1), 8=151 (LC 1), 9=143 (LC 1), 10=62 (LC 1)

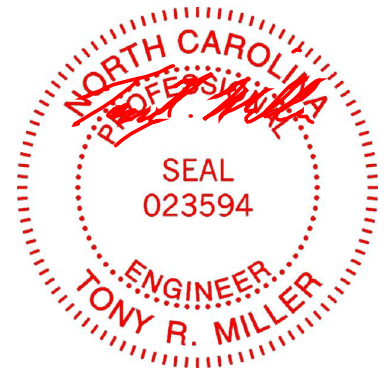
FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-10=-56/0, 5-6=-47/0, 1-2=-9/0, 2-3=-9/0, 3-4=-9/0, 4-5=-9/0
 BOT CHORD 9-10=0/9, 8-9=0/9, 7-8=0/9, 6-7=0/9
 WEBS 2-9=-130/0, 3-8=-137/0, 4-7=-121/0

NOTES

- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 8, 2024

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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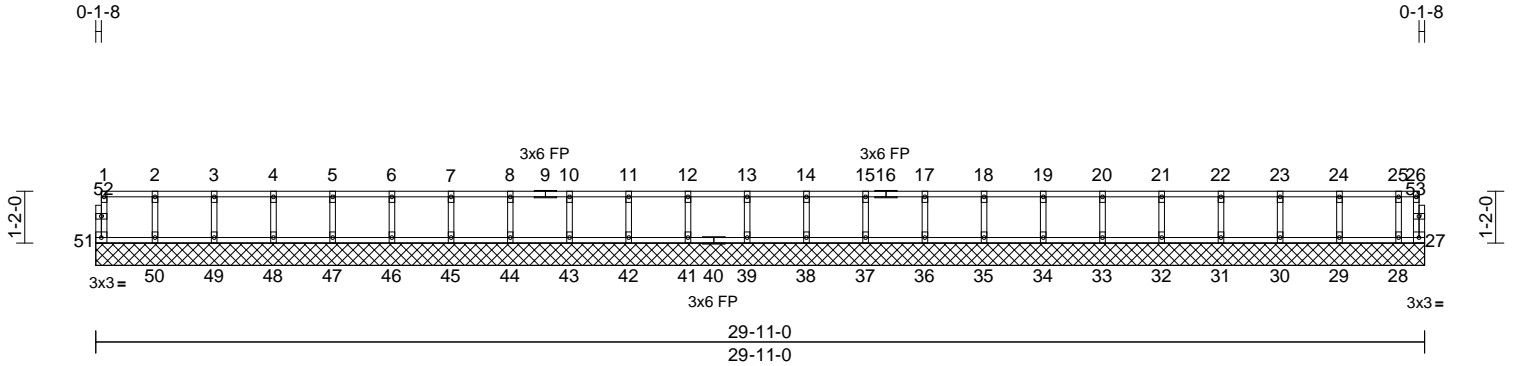
818 Soundside Road
 Edenton, NC 27932

Job Q2400926-27	Truss 2K05	Truss Type Floor Supported Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417049
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:15
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Page: 1



Scale = 1:51.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	27	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 123 lb	FT = 20%F, 11%E

LUMBER		TOP CHORD
TOP CHORD	2x4 SP No.2(flat)	1-51=48/0, 26-27=0/0, 1-2=-6/0, 2-3=-6/0, 3-4=-6/0, 4-5=-6/0, 5-6=-6/0, 6-7=-6/0, 7-8=-6/0, 8-10=-6/0, 10-11=-6/0, 11-12=-6/0, 12-13=-6/0, 13-14=-6/0, 14-15=-6/0, 15-17=-6/0, 17-18=-6/0, 18-19=-6/0, 19-20=-6/0, 20-21=-6/0, 21-22=-6/0, 22-23=-6/0, 23-24=-6/0, 24-25=-6/0, 25-26=-6/0
BOT CHORD	2x4 SP No.2(flat)	50-51=0/6, 49-50=0/6, 48-49=0/6, 47-48=0/6, 46-47=0/6, 45-46=0/6, 44-45=0/6, 43-44=0/6, 42-43=0/6, 41-42=0/6, 39-41=0/6, 38-39=0/6, 37-38=0/6, 36-37=0/6, 35-36=0/6, 34-35=0/6, 33-34=0/6, 32-33=0/6, 31-32=0/6, 30-31=0/6, 29-30=0/6, 28-29=0/6, 27-28=0/6
WEBS	2x4 SP No.3(flat)	2-50=-133/0, 3-49=-134/0, 4-48=-133/0, 5-47=-133/0, 6-46=-133/0, 7-45=-133/0, 8-44=-133/0, 10-43=-133/0, 11-42=-133/0, 12-41=-133/0, 13-39=-133/0, 14-38=-133/0, 15-37=-133/0, 17-36=-133/0, 18-35=-133/0, 19-34=-133/0, 20-33=-133/0, 21-32=-133/0, 22-31=-134/0, 23-30=-132/0, 24-29=-139/0, 25-28=-102/0
OTHERS	2x4 SP No.3(flat)	

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)
Max Grav	27=29-11-0, 28=29-11-0, 29=29-11-0, 30=29-11-0, 31=29-11-0, 32=29-11-0, 33=29-11-0, 34=29-11-0, 35=29-11-0, 36=29-11-0, 37=29-11-0, 38=29-11-0, 39=29-11-0, 41=29-11-0, 42=29-11-0, 43=29-11-0, 44=29-11-0, 45=29-11-0, 46=29-11-0, 47=29-11-0, 48=29-11-0, 49=29-11-0, 50=29-11-0, 51=29-11-0

FORCES	(lb) - Maximum Compression/Maximum Tension
	27=8 (LC 1), 28=104 (LC 1), 29=153 (LC 1), 30=145 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=147 (LC 1), 38=147 (LC 1), 39=147 (LC 1), 41=147 (LC 1), 42=147 (LC 1), 43=147 (LC 1), 44=147 (LC 1), 45=147 (LC 1), 46=147 (LC 1), 47=147 (LC 1), 48=147 (LC 1), 49=146 (LC 1), 50=148 (LC 1), 51=52 (LC 1)

- NOTES**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
 - 2) Gable requires continuous bottom chord bearing.
 - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 4) Gable studs spaced at 1-4-0 oc.
 - 5) All bearings are assumed to be SP No.2 .
 - 6) 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.
 - 7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 8, 2024

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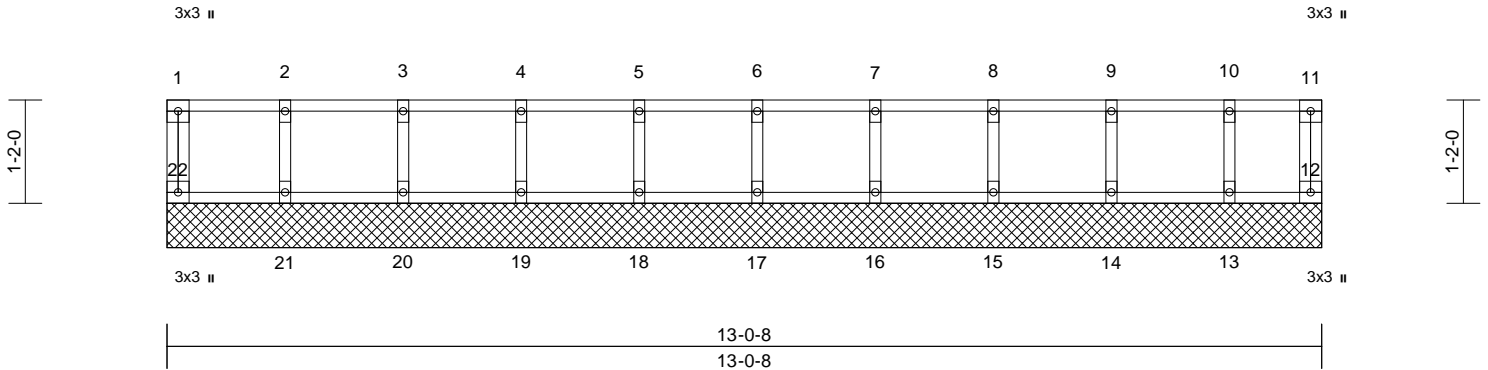
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2K06	Truss Type Floor Supported Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417050
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:15
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Page: 1



Scale = 1:26

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 56 lb	FT = 20%F, 11%E

LUMBER

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

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) 12=13-0-8, 13=13-0-8, 14=13-0-8, 15=13-0-8, 16=13-0-8, 17=13-0-8, 18=13-0-8, 19=13-0-8, 20=13-0-8, 21=13-0-8, 22=13-0-8
Max Grav 12=46 (LC 1), 13=125 (LC 1), 14=151 (LC 1), 15=145 (LC 1), 16=147 (LC 1), 17=147 (LC 1), 18=147 (LC 1), 19=147 (LC 1), 20=147 (LC 1), 21=146 (LC 1), 22=60 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

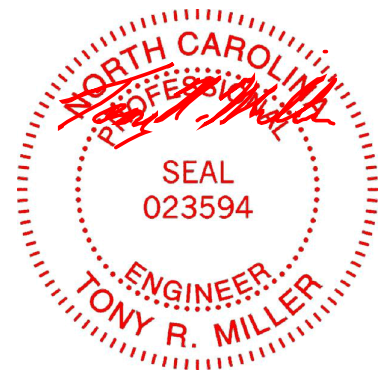
TOP CHORD 1-22=-55/0, 11-12=-40/0, 1-2=-8/0, 2-3=-8/0, 3-4=-8/0, 4-5=-8/0, 5-6=-8/0, 6-7=-8/0, 7-8=-8/0, 8-9=-8/0, 9-10=-8/0, 10-11=-8/0
BOT CHORD 21-22=0/8, 20-21=0/8, 19-20=0/8, 18-19=0/8, 17-18=0/8, 16-17=0/8, 15-16=0/8, 14-15=0/8, 13-14=0/8, 12-13=0/8
WEBS 2-21=-132/0, 3-20=-134/0, 4-19=-133/0, 5-18=-133/0, 6-17=-133/0, 7-16=-134/0, 8-15=-132/0, 9-14=-137/0, 10-13=-116/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2.

- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 8, 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)



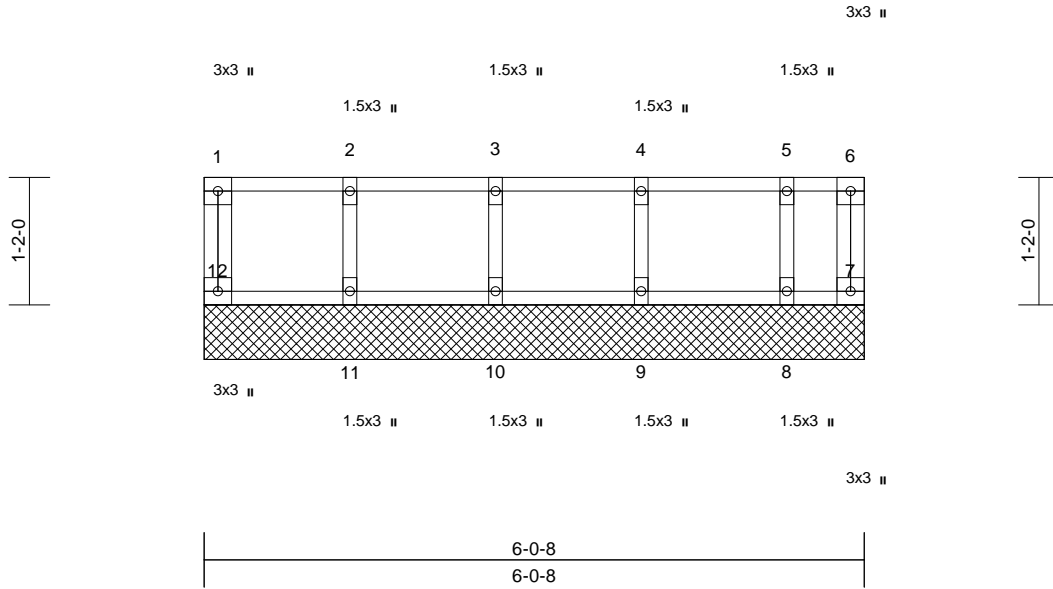
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss 2K07	Truss Type Floor Supported Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417051
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:15
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Page: 1



Scale = 1:21.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 29 lb	FT = 20%F, 11%E

LUMBER

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

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) 7=6-0-8, 8=6-0-8, 9=6-0-8, 10=6-0-8, 11=6-0-8, 12=6-0-8
 Max Grav 7=26 (LC 1), 8=107 (LC 1), 9=153 (LC 1), 10=145 (LC 1), 11=148 (LC 1), 12=59 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-12=-55/0, 6-7=-18/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0
 BOT CHORD 11-12=0/7, 10-11=0/7, 9-10=0/7, 8-9=0/7, 7-8=0/7
 WEBS 2-11=-133/0, 3-10=-132/0, 4-9=-139/0, 5-8=-103/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 8, 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)



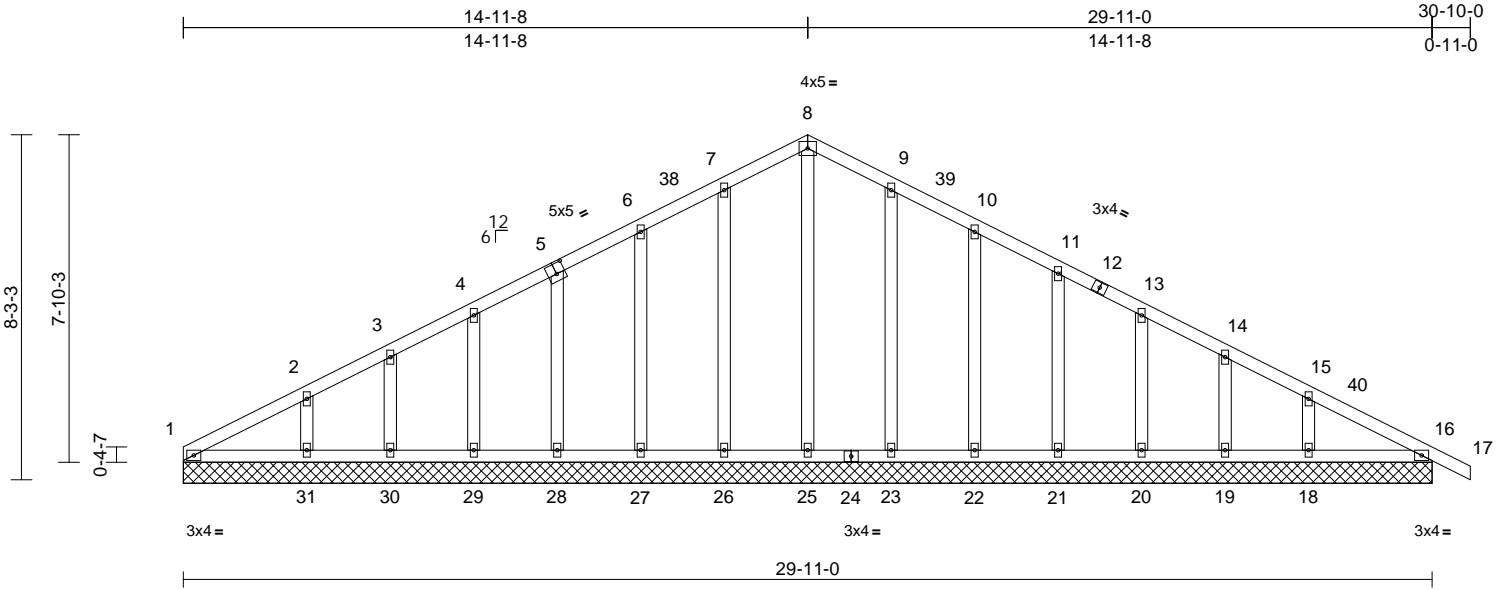
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss A01	Truss Type Common Supported Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417052
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:15
ID:VrR6wNsZyJ26W6ByYn3AzKlyP-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:55.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 175 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size)
1=29-11-0, 16=29-11-0,
18=29-11-0, 19=29-11-0,
20=29-11-0, 21=29-11-0,
22=29-11-0, 23=29-11-0,
25=29-11-0, 26=29-11-0,
27=29-11-0, 28=29-11-0,
29=29-11-0, 30=29-11-0,
31=29-11-0, 32=29-11-0,
35=29-11-0
Max Horiz 1=109 (LC 10), 32=109 (LC 10)
Max Uplift 16=3 (LC 12), 18=7 (LC 12),
19=9 (LC 12), 20=8 (LC 12),
21=8 (LC 12), 22=11 (LC 12),
23=3 (LC 12), 26=3 (LC 12),
27=11 (LC 12), 28=8 (LC 12),
29=8 (LC 12), 30=7 (LC 12),
31=15 (LC 12), 35=3 (LC 12)
Max Grav 1=113 (LC 18), 16=171 (LC 1),
18=227 (LC 22), 19=137 (LC 1),
20=166 (LC 22), 21=159 (LC 22),
22=160 (LC 1), 23=166 (LC 22),
25=139 (LC 1), 26=165 (LC 21),
27=163 (LC 1), 28=158 (LC 21),
29=163 (LC 1), 30=132 (LC 1),
31=243 (LC 21), 32=113 (LC 18),
35=171 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-88/83, 2-3=-91/64, 3-4=-80/61,
4-6=-74/125, 6-7=-64/165, 7-8=-76/198,
8-9=-76/199, 9-10=-63/167, 10-11=-50/128,
11-13=-44/91, 13-14=-44/52, 14-15=-55/20,
15-16=-73/40, 16-17=0/25
BOT CHORD 1-31=25/104, 30-31=25/104,
29-30=25/104, 28-29=25/104,
27-28=25/105, 26-27=25/105,
25-26=25/105, 23-25=25/105,
22-23=25/105, 21-22=25/105,
20-21=25/105, 19-20=25/105,
18-19=25/105, 16-18=25/105
WEBS 8-25=-99/0, 7-26=-125/98, 6-27=-123/69,
5-28=-119/58, 4-29=-120/61, 3-30=-106/55,
2-31=-165/115, 9-23=-126/99,
10-22=-120/67, 11-21=-119/58,
13-20=-123/61, 14-19=-108/55,
15-18=-157/87

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=30ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-0 to 2-11-8, Exterior (2) 2-11-8 to 14-11-8, Corner (3) 14-11-8 to 17-11-8, Exterior (2) 17-11-8 to 30-10-0 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
- 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.
- 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 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 16, 3 lb uplift at joint 26, 11 lb uplift at joint 27, 8 lb uplift at joint 28, 8 lb uplift at joint 29, 7 lb uplift at joint 30, 15 lb uplift at joint 31, 3 lb uplift at joint 23, 11 lb uplift at joint 22, 8 lb uplift at joint 21, 8 lb uplift at joint 20, 9 lb uplift at joint 19, 7 lb uplift at joint 18 and 3 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 truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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.

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)



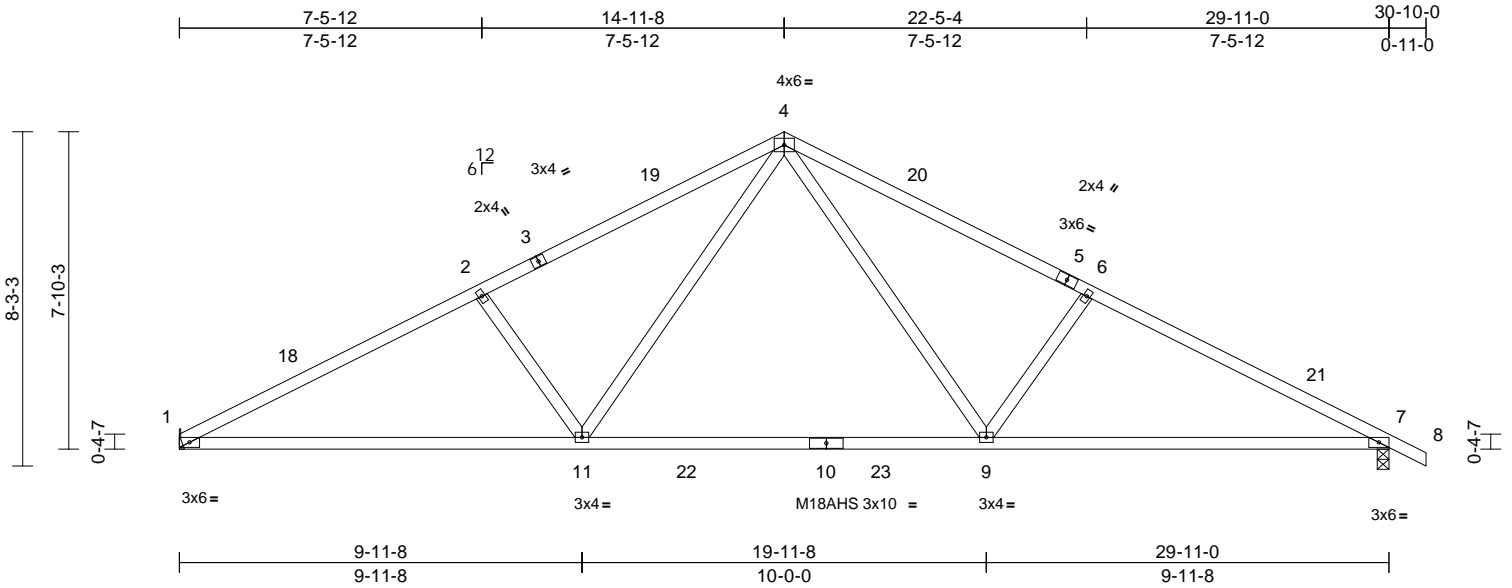
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss A02	Truss Type Common	Qty 16	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417053
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:16
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Page: 1



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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	1.00	TC	0.64	Vert(LL)	-0.45	9-11	>805	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.64	9-11	>562	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.08	11-14	>999	240	Weight: 135 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 1= Mechanical, 7=0-3-8
Max Horiz 1=-109 (LC 10)
Max Grav 1=1196 (LC 1), 7=1253 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2119/90, 2-4=-1891/114, 4-6=-1887/104,
6-7=-2115/80, 7-8=0/25
BOT CHORD 1-11=-23/1862, 9-11=0/1200, 7-9=-2/1845
WEBS 4-9=0/773, 6-9=-468/127, 4-11=0/778,
2-11=-471/127

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 14-11-8, Exterior (2) 14-11-8 to 17-11-8, Interior (1) 17-11-8 to 30-10-0 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
- 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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: , Joint 7 SP No.2 .
- Refer to girder(s) for truss to truss connections.

- 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 truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



May 8, 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)



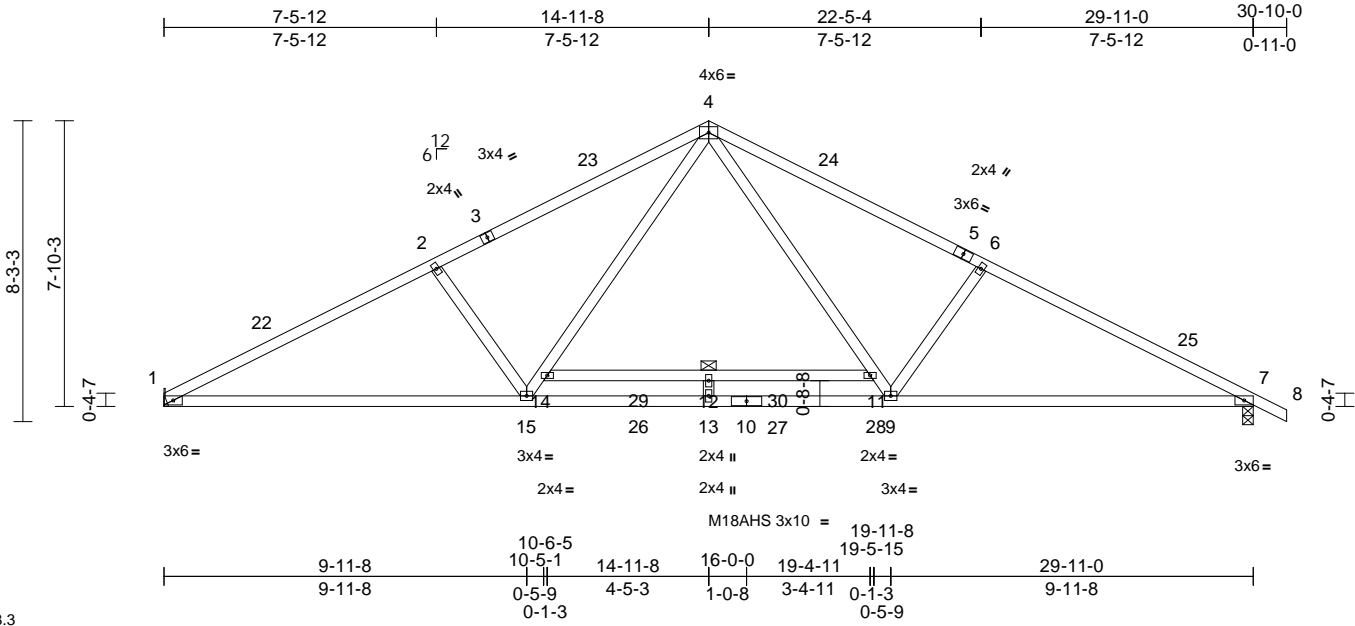
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss A03	Truss Type Common	Qty 5	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417054
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:16
ID: _76xbWckjIQGu7uSUYhzLjzKLxK-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

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	1.00	TC	0.62	Vert(LL)	-0.43	12	>833	360	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.76	12	>473	240	M18AHS 186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.07	7	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.07	15-18	>999	240	Weight: 149 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1 *Except* 14-11:2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1= Mechanical, 7=0-3-8
Max Horiz 1=-109 (LC 10)
Max Grav 1=1288 (LC 1), 7=1345 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2365/0, 2-4=-2155/0, 4-6=-2152/0, 6-7=-2361/0, 7-8=0/25
BOT CHORD 1-15=0/2132, 13-15=0/1491, 9-13=0/1491, 7-9=0/2049, 12-14=-131/0, 11-12=-131/0
WEBS 4-11=0/938, 9-11=0/786, 6-9=-460/130, 14-15=0/791, 4-14=0/943, 2-15=-463/130, 12-13=-102/0

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 14-11-8, Exterior (2) 14-11-8 to 17-11-8, Interior (1) 17-11-8 to 30-10-0 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) All plates are MT20 plates unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * 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 BCCL = 10.0psf.

- 6) Bearings are assumed to be: , Joint 7 SP No.1 .
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) 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.
 - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S)** Standard



May 8, 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)



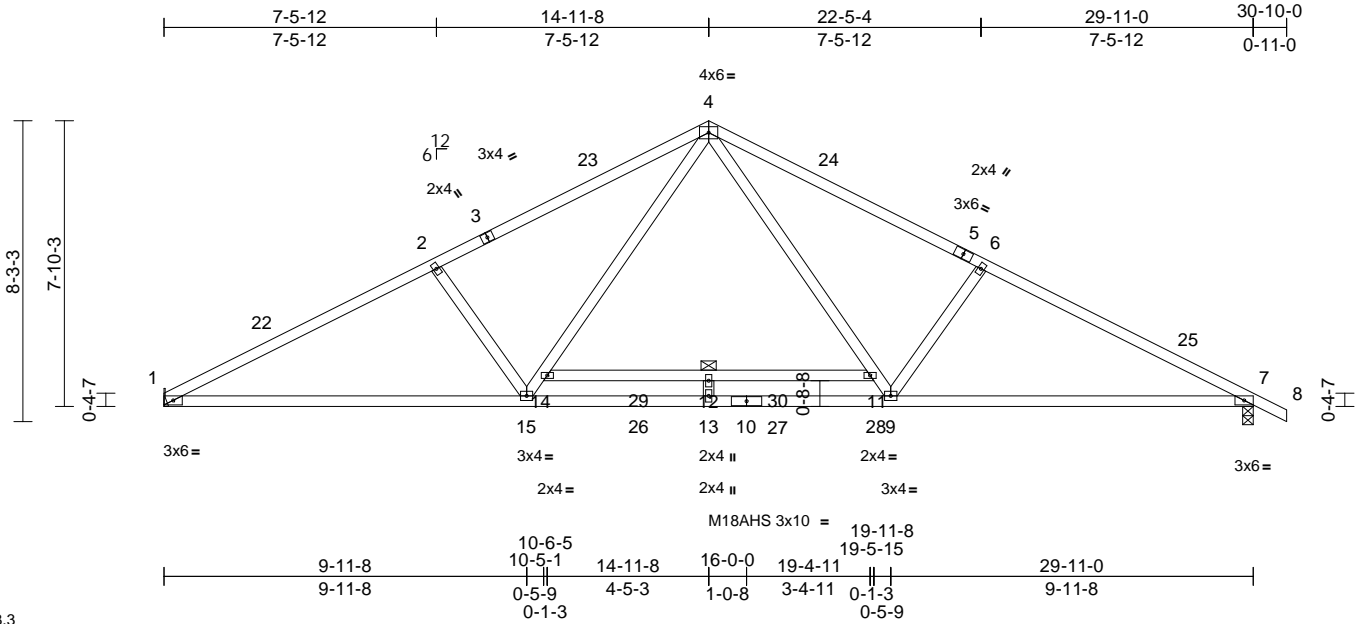
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss A04	Truss Type Common	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417055
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:16
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Page: 1



Scale = 1:63.3

Loading	(psf)	Spacing	2-1-8	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.41	12	>882	360	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.70	12	>510	240	M18AHS 186/179
BCLL	0.0*	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.07	7	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.07	15-18	>999	240	Weight: 149 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP DSS
BOT CHORD 2x4 SP DSS *Except* 14-11:2x4 SP No.2
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1= Mechanical, 7=0-3-8
Max Horiz 1=-115 (LC 10)
Max Grav 1=1369 (LC 1), 7=1429 (LC 1)

FORCES

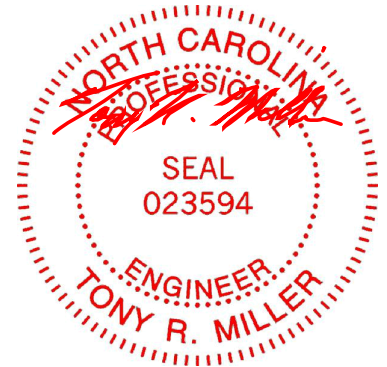
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2518/0, 2-4=-2295/0, 4-6=-2291/0, 6-7=-2514/0, 7-8=0/26
BOT CHORD 1-15=0/2271, 13-15=0/1583, 9-13=0/1583, 7-9=0/2183, 12-14=-140/0, 11-12=-140/0
WEBS 4-11=0/1006, 9-11=0/850, 6-9=-492/141, 14-15=0/855, 4-14=0/1010, 2-15=-495/142, 12-13=-123/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 14-11-8, Exterior (2) 14-11-8 to 17-11-8, Interior (1) 17-11-8 to 30-10-0 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
- 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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Bearings are assumed to be: , Joint 7 SP DSS .
 - Refer to girder(s) for truss to truss connections.
 - 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)** Standard



May 8, 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)



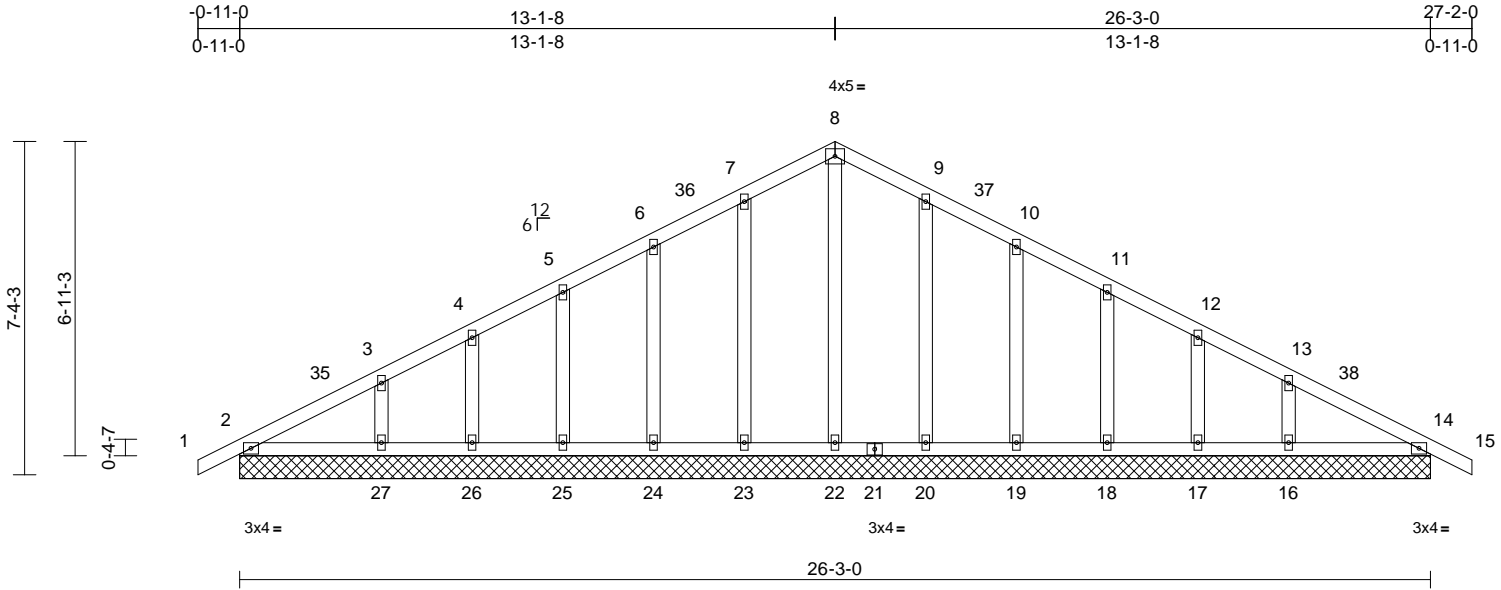
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss B01	Truss Type Common Supported Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417057
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:16
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Scale = 1:50.8

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	14	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							
											Weight: 146 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.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS	(size)
Max Horiz	2=-90 (LC 10), 28=-90 (LC 10)
Max Uplift	2=-7 (LC 12), 14=-7 (LC 12), 16=-7 (LC 12), 17=-9 (LC 12), 18=-8 (LC 12), 19=-10 (LC 12), 20=-5 (LC 12), 23=-5 (LC 12), 24=-10 (LC 12), 25=-8 (LC 12), 26=-9 (LC 12), 27=-7 (LC 12), 28=-7 (LC 12), 32=-7 (LC 12)
Max Grav	2=171 (LC 1), 14=171 (LC 1), 16=232 (LC 22), 17=127 (LC 1), 18=162 (LC 22), 19=153 (LC 1), 20=162 (LC 22), 22=133 (LC 1), 23=162 (LC 21), 24=153 (LC 1), 25=162 (LC 21), 26=127 (LC 1), 27=232 (LC 21), 28=171 (LC 1), 32=171 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/24, 2-3=-78/67, 3-4=-79/50, 4-5=-68/64, 5-6=-63/101, 6-7=-56/138, 7-8=-68/171, 8-9=-68/173, 9-10=-55/140, 10-11=-45/103, 11-12=-43/66, 12-13=-51/34, 13-14=-58/35, 14-15=0/24
BOT CHORD	2-27=-19/90, 26-27=-19/90, 25-26=-19/90, 24-25=-19/90, 23-24=-19/90, 22-23=-19/90, 20-22=-19/90, 19-20=-19/90, 18-19=-19/90, 17-18=-19/90, 16-17=-19/90, 14-16=-19/90

WEBS	
8-22=-94/0, 7-23=-123/98, 6-24=-115/64, 5-25=-120/59, 4-26=-101/53, 3-27=-160/87, 9-20=-123/98, 10-19=-115/64, 11-18=-120/59, 12-17=-101/53, 13-16=-160/87	

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=26ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-11-0 to 2-1-0, Exterior (2) 2-1-0 to 13-1-8, Corner (3) 13-1-8 to 16-1-8, Exterior (2) 16-1-8 to 27-2-0 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
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-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" tall by 2'-0" wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 2, 7 lb uplift at joint 14, 5 lb uplift at joint 23, 10 lb uplift at joint 24, 8 lb uplift at joint 25, 9 lb uplift at joint 26, 7 lb uplift at joint 27, 5 lb uplift at joint 20, 10 lb uplift at joint 19, 8 lb uplift at joint 18, 9 lb uplift at joint 17, 7 lb uplift at joint 16, 7 lb uplift at joint 2 and 7 lb uplift at joint 14.

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



May 8, 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)



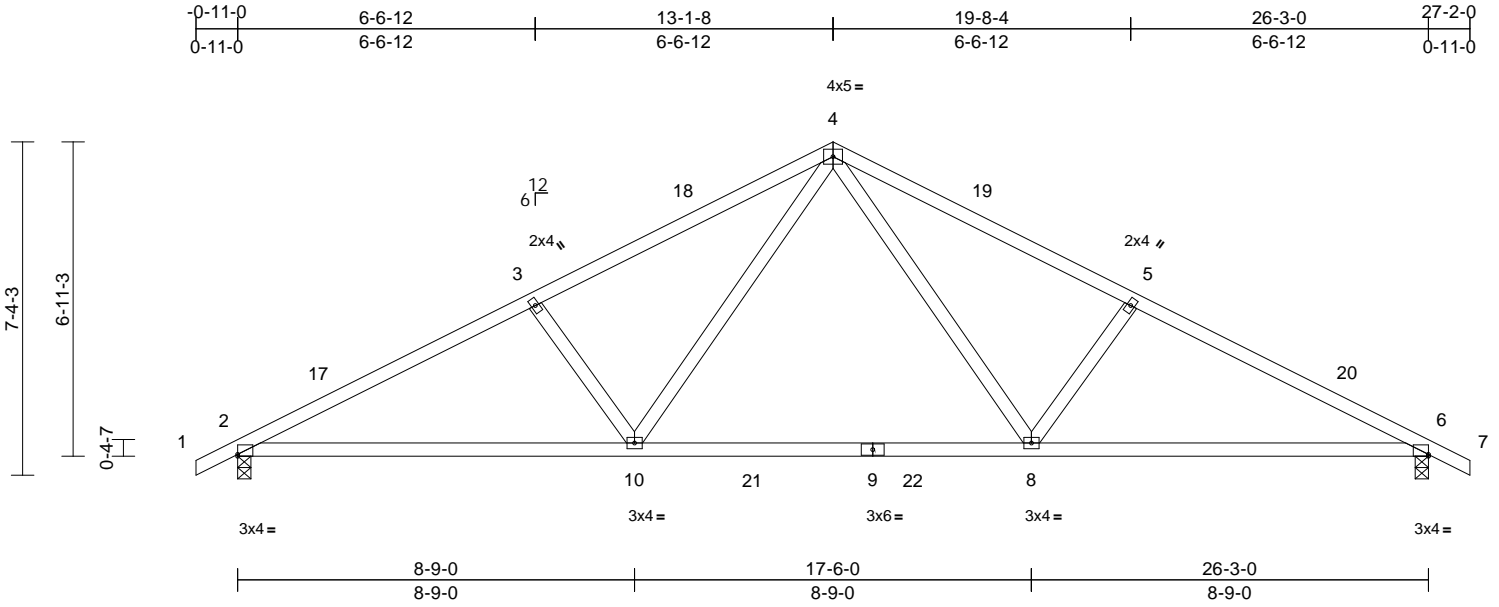
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss B02	Truss Type Common	Qty 2	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417058
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:16
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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	1.00	TC	0.48	Vert(LL)	-0.23	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.37	8-10	>863	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.05	8-16	>999	240	Weight: 120 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=-93 (LC 10)
Max Uplift 2=-1 (LC 12), 6=-1 (LC 12)
Max Grav 2=1105 (LC 1), 6=1105 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-1845/74, 3-4=-1646/95,
4-5=-1646/95, 5-6=-1845/74, 6-7=0/25
BOT CHORD 2-10=0/1610, 8-10=0/1050, 6-8=0/1610
WEBS 4-8=0/654, 5-8=-407/112, 4-10=0/654,
3-10=-407/112

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 2 and 1 lb uplift at joint 6.
 - 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.
 - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=115mph (3-second gust)
Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft;
B=45ft; L=26ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 13-1-8, Exterior (2) 13-1-8 to 16-1-8, Interior (1) 16-1-8 to 27-2-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * 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.
 - 5) All bearings are assumed to be SP No.2.



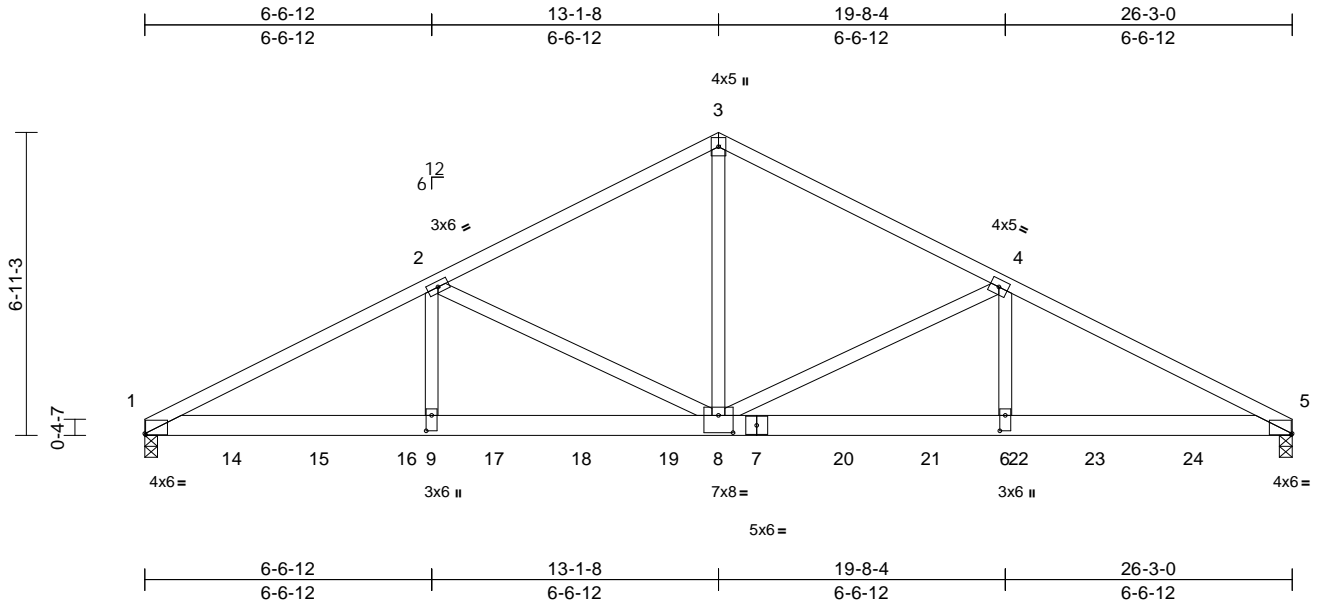
May 8, 2024

Job Q2400926-27	Truss B03	Truss Type Common Girder	Qty 1	Ply 4	Value Build Homes - Carter Job Reference (optional)	165417059
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:16
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Plate Offsets (X, Y): [1:0-0-4,0-0-5], [5:0-0-4,0-0-5], [6:0-4-4,0-1-8], [8:0-4-0,0-4-12], [9:0-4-4,0-1-8]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.78	Vert(LL)	-0.15	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.30	6-8	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.65	Horz(CT)	0.08	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.01	8	>999	240	Weight: 575 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1 *Except* 7-5:2x6 SP DSS
WEBS 2x4 SP No.3 *Except* 8-3:2x4 SP No.2

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

REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=-84 (LC 6)
Max Grav 1=8315 (LC 1), 5=9653 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-16034/0, 2-3=-10631/0, 3-4=-10630/0, 4-5=-16418/0
BOT CHORD 1-9=0/14175, 8-9=0/14175, 6-8=0/14563, 5-6=0/14563
WEBS 2-9=0/4250, 2-8=-5312/0, 3-8=0/9070, 4-8=-5745/0, 4-6=0/4654

4) Wind: ASCE 7-10; Vult=115mph (3-second gust)
Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft;
B=45ft; L=26ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional); cantilever left and right exposed ;
end vertical left and right exposed; Lumber DOL=1.60
plate grip DOL=1.60

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) Bearings are assumed to be: Joint 1 SP No.1 , Joint 5 SP DSS .

8) 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.

9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1176 lb down at 2-0-0, 1176 lb down at 4-0-0, 1176 lb down at 6-0-0, 1176 lb down at 8-0-0, 1176 lb down at 10-0-0, 1176 lb down at 12-0-0, 1269 lb down at 14-0-0, 1269 lb down at 16-0-0, 1269 lb down at 18-0-0, 1269 lb down at 20-0-0, 1269 lb down at 21-9-0, and 1348 lb down at 24-0-0, and 1184 lb down at 26-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-58, 3-5=-58, 1-5=-19
Concentrated Loads (lb)
Vert: 5=-1184 (B), 7=-1269 (B), 14=-1176 (B), 15=-1176 (B), 16=-1176 (B), 17=-1176 (B), 18=-1176 (B), 19=-1176 (B), 20=-1269 (B), 21=-1269 (B), 22=-1269 (B), 23=-1269 (B), 24=-1348 (B)

NOTES

1) 4-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 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.

2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

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



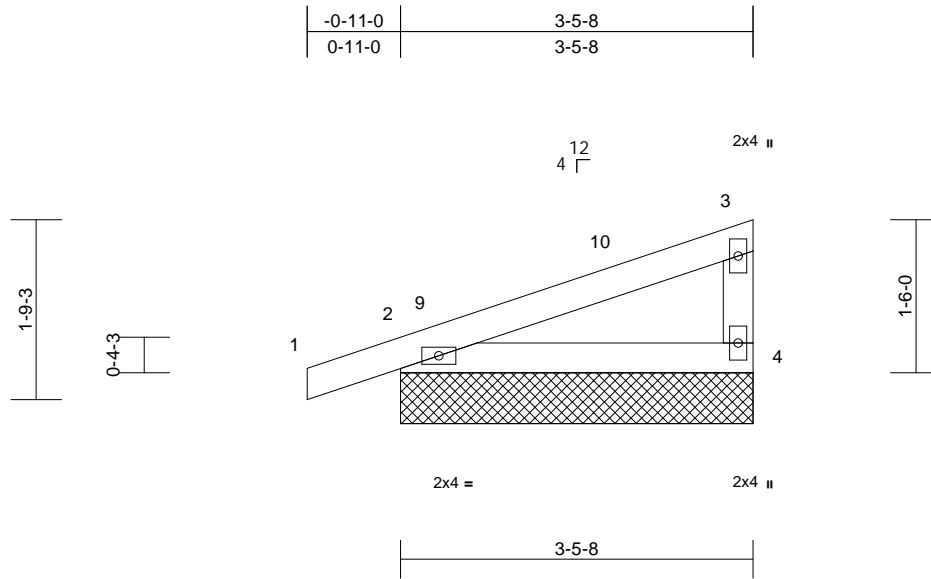
May 8, 2024

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - Carter	165417060
Q2400926-27	C01	Monopitch Supported Gable	2	1	Job Reference (optional)	

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
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Page: 1



Scale = 1:22.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 13 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 3-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=3-5-8, 4=3-5-8, 5=3-5-8
Max Horiz 2=35 (LC 12), 5=35 (LC 12)
Max Uplift 2=-16 (LC 12), 5=-16 (LC 12)
Max Grav 2=195 (LC 1), 4=128 (LC 1), 5=195 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

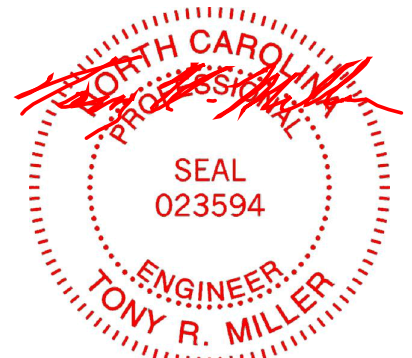
TOP CHORD 1-2=0/17, 2-3=-47/21, 3-4=-81/77
BOT CHORD 2-4=-35/46

NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-11-0 to 2-1-0, Exterior (2) 2-1-0 to 3-3-12 zone; cantilever 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 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) All bearings are assumed to be SP No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2 and 16 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.

LOAD CASE(S) Standard



May 8, 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

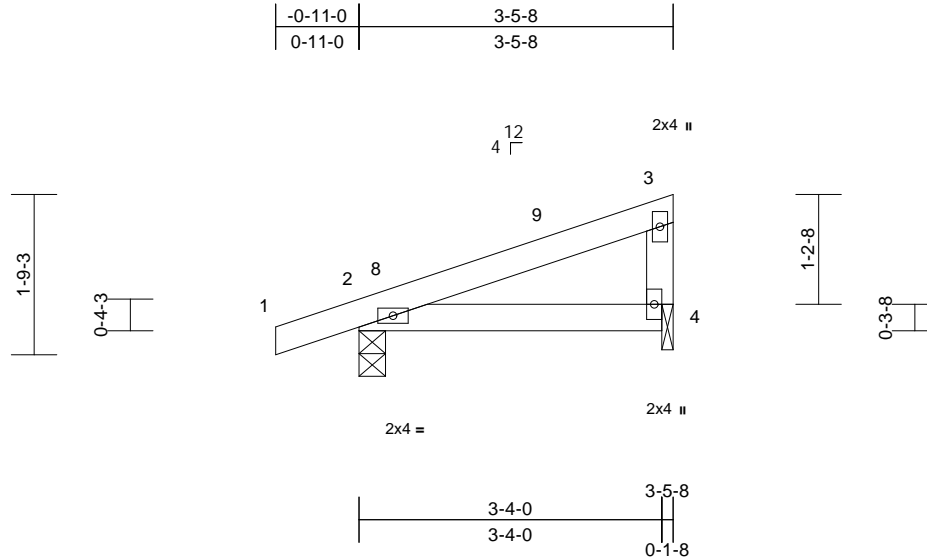
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss C02	Truss Type Monopitch	Qty 13	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417061
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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Page: 1



Scale = 1:25.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.13	Vert(LL)	-0.01	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	4-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP		Wind(LL)	0.01	4-7	>999	240	Weight: 13 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 3-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)

2=0-3-8, 4=0-1-8
Max Horiz 2=35 (LC 12)
Max Uplift 2=-16 (LC 12)
Max Grav 2=195 (LC 1), 4=125 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-47/21, 3-4=-81/46
BOT CHORD 2-4=-23/46

NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFERS (directional) and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 3-3-12 zone; cantilever left and right exposed ;C-C for members and forces & MWFERS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) Bearings are assumed to be: Joint 2 SP No.2 , Joint 4 SP No.3 .
- 5) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2.
- 8) 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) Standard



May 8, 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)



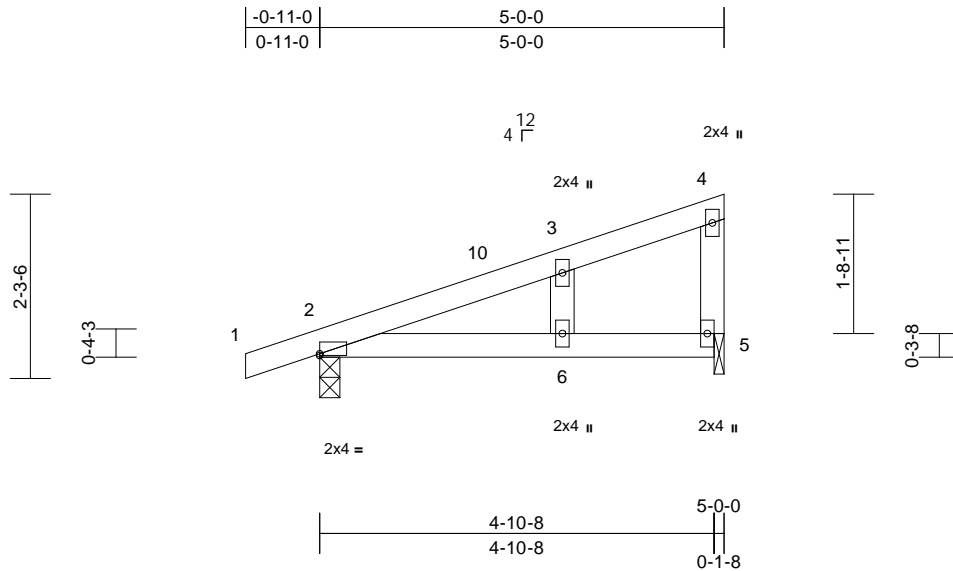
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss D01	Truss Type Monopitch Structural Gable	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417062
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
ID:nMsDyNMOoRr?FUvfwuiZFzKLuY-RfC?PsB70Hq3NSgPqL8w3uITXbGKWrCD0i7J4zJC?f

Page: 1



Scale = 1:28.5

Plate Offsets (X, Y): [2:Edge,0-0-4]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.25	Vert(LL)	-0.03	6-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	6-9	>973	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.05	6-9	>999	240	Weight: 20 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, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 2=0-3-0, 5=0-1-8
Max Horiz 2=45 (LC 12)
Max Uplift 2=49 (LC 12), 5=38 (LC 12)
Max Grav 2=246 (LC 1), 5=183 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-83/48, 3-4=-31/30, 4-5=-104/78
BOT CHORD 2-6=-68/65, 5-6=0/0
WEBS 3-6=-48/22

NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 4-10-4 zone; cantilever 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) 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) Gable studs spaced at 2-0-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) * 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.
- 6) Bearings are assumed to be: Joint 2 SP No.2, Joint 5 SP No.3.
- 7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 2 and 38 lb uplift at joint 5.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



May 8, 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)

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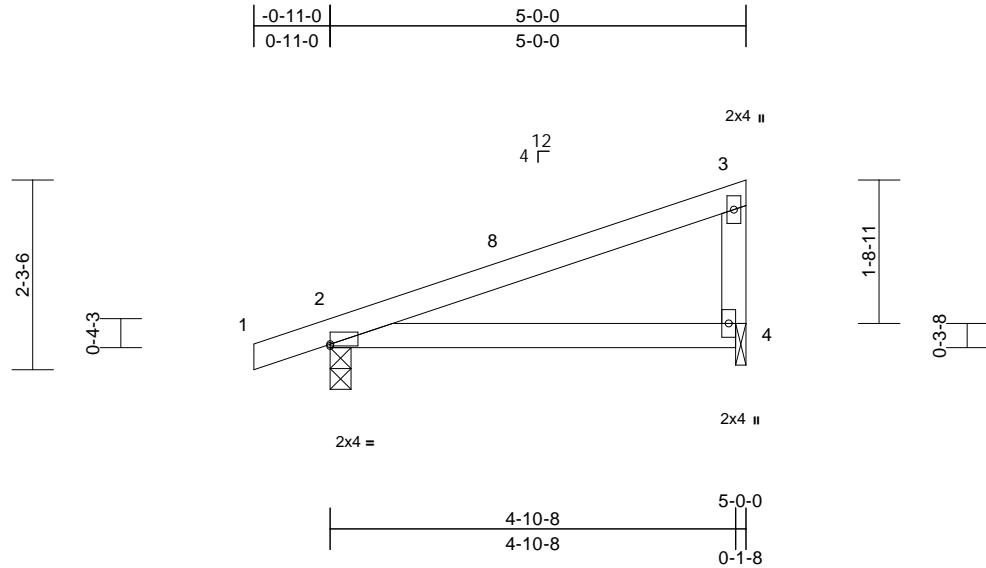
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss D02	Truss Type Monopitch	Qty 9	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417063
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
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Page: 1



Scale = 1:27.7

Plate Offsets (X, Y): [2:Edge,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.31	Vert(LL)	-0.02	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.05	4-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.05	4-7	>999	240	Weight: 19 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, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 2=0-3-0, 4=0-1-8
Max Horiz 2=47 (LC 12)
Max Uplift 2=-50 (LC 12), 4=-39 (LC 12)
Max Grav 2=254 (LC 1), 4=189 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-81/50, 3-4=-127/85
BOT CHORD 2-4=-70/68

NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust)
Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 4-10-4 zone; cantilever 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) Bearings are assumed to be: Joint 2 SP No.2 , Joint 4 SP No.3 .
- 5) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 2 and 39 lb uplift at joint 4.
- 8) 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.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



May 8, 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)

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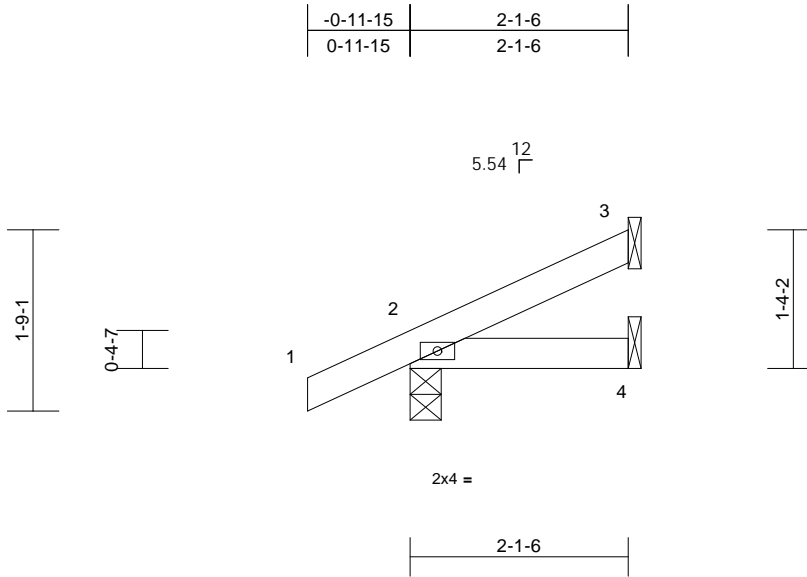
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss J01	Truss Type Jack-Open	Qty 2	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417064
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
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Page: 1



Scale = 1:22.3

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	0.00	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	4-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP		Wind(LL)	0.00	4-7	>999	240	Weight: 8 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-1-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-10, 3= Mechanical, 4= Mechanical
Max Horiz 2=36 (LC 12)
Max Uplift 2=-21 (LC 12), 3=-7 (LC 12)
Max Grav 2=151 (LC 1), 3=44 (LC 1), 4=34 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/24, 2-3=-56/15
BOT CHORD 2-4=-10/25

NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) Bearings are assumed to be: , Joint 2 SP No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 3 and 21 lb uplift at joint 2.

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.

LOAD CASE(S) Standard



May 8, 2024

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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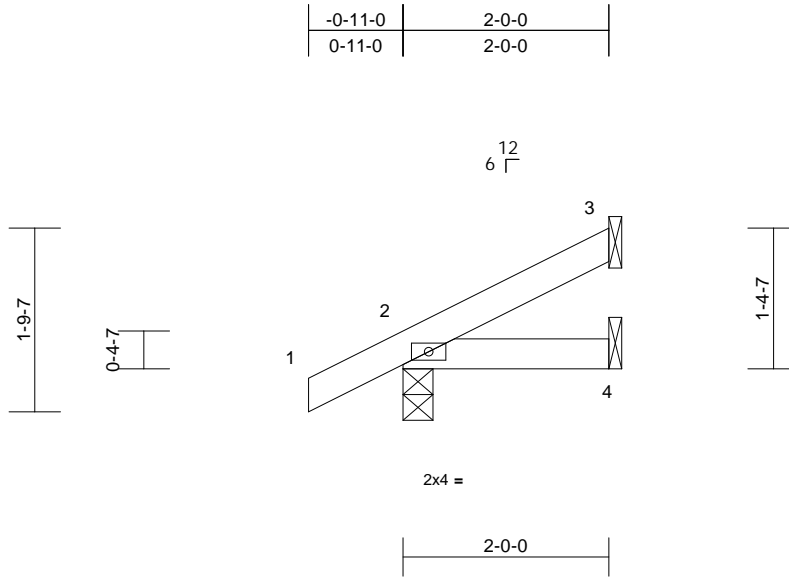
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss J02	Truss Type Jack-Open	Qty 6	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417065
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
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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	1.00	TC	0.06	Vert(LL)	0.00	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	4-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP		Wind(LL)	0.00	4-7	>999	240	Weight: 8 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=38 (LC 12)
Max Uplift 2=-19 (LC 12), 3=-8 (LC 12)
Max Grav 2=147 (LC 1), 3=44 (LC 1), 4=34 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-33/16
BOT CHORD 2-4=-7/18

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.
LOAD CASE(S) Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * 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.
 - 4) Bearings are assumed to be: , Joint 2 SP No.2 .
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 2 and 8 lb uplift at joint 3.



May 8, 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)



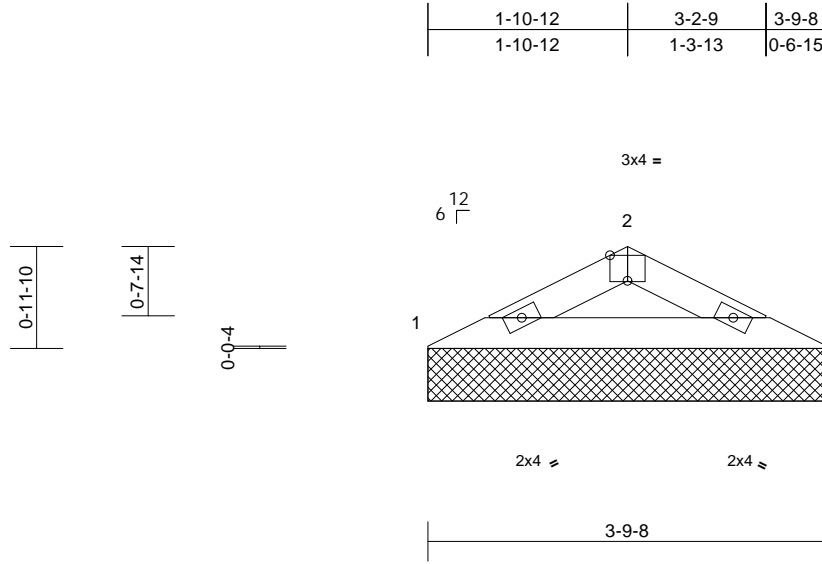
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss V01	Truss Type Valley	Qty 2	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417066
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
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Page: 1



Scale = 1:21.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%

LUMBER

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

- 8) All bearings are assumed to be SP No.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.

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

LOAD CASE(S) Standard

REACTIONS

(size) 1=3-9-8, 3=3-9-8
Max Horiz 1=10 (LC 11)
Max Grav 1=152 (LC 1), 3=152 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-260/70, 2-3=-260/70
BOT CHORD 1-3=-52/226

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 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.



May 8, 2024

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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ENGINEERING BY
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A MiTek Affiliate

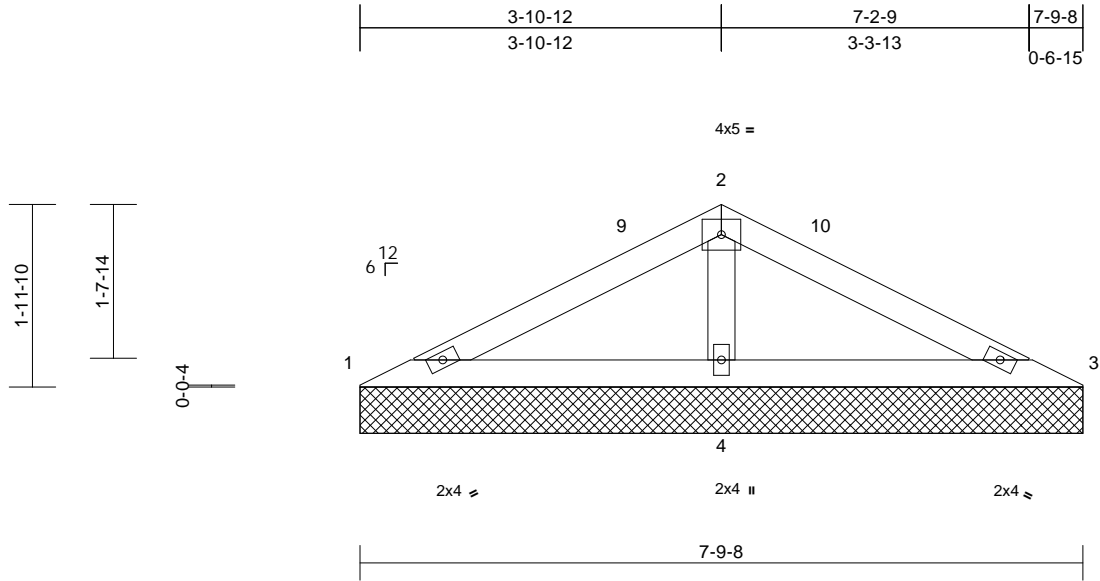
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss V02	Truss Type Valley	Qty 2	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417067
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
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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	1.00	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 25 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=7-9-8, 3=7-9-8, 4=7-9-8
Max Horiz 1=23 (LC 11)
Max Grav 1=81 (LC 21), 3=81 (LC 22), 4=512 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-89/244, 2-3=-89/244
BOT CHORD 1-4=-193/83, 3-4=-193/83
WEBS 2-4=-355/98

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 3-11-4, Exterior (2) 3-11-4 to 6-7-11, Interior (1) 6-7-11 to 7-10-0 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
 - 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.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 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 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- 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 truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



May 8, 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)



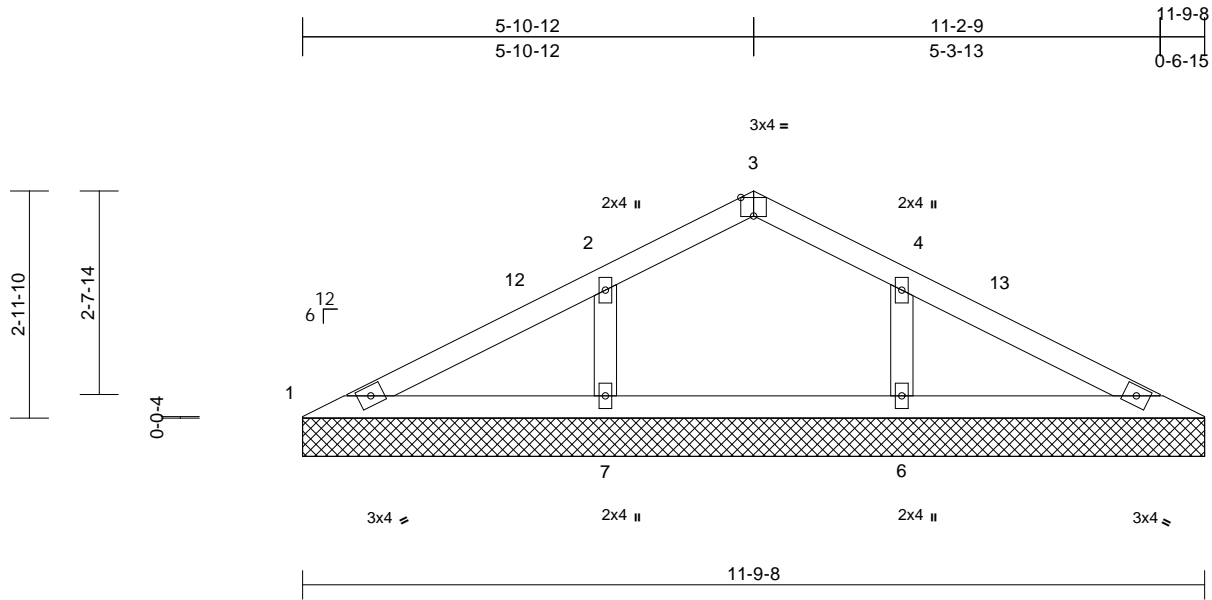
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss V03	Truss Type Valley	Qty 2	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417068
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
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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	1.00	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 40 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=11-9-8, 5=11-9-8, 6=11-9-8,
7=11-9-8
Max Horiz 1=36 (LC 10)
Max Grav 1=129 (LC 1), 5=129 (LC 1), 6=342
(LC 1), 7=342 (LC 1)

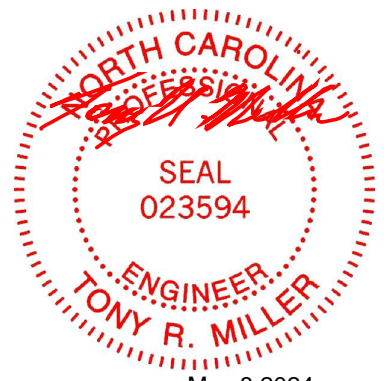
FORCES (lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=-200/58, 2-3=-55/35, 3-4=-55/35,
4-5=-200/58
BOT CHORD 1-7=-33/173, 6-7=-33/53, 5-6=-33/173
WEBS 2-7=-241/83, 4-6=-241/85

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) All bearings are assumed to be SP No.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 truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 5-11-4, Exterior (2) 5-11-4 to 8-11-4, Interior (1) 8-11-4 to 11-10-0 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.



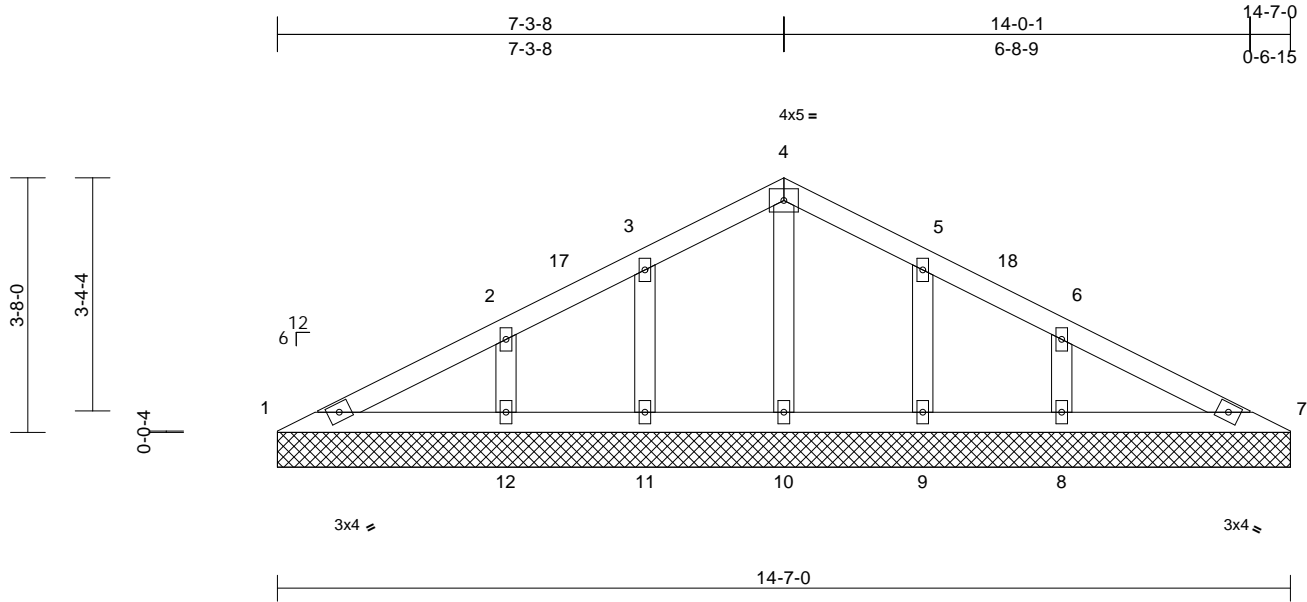
May 8, 2024

Job Q2400926-27	Truss V04	Truss Type Valley	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417069
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
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Page: 1



Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 58 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.
BOT CHORD	Rigid ceiling directly applied.
REACTIONS (size)	
	1=14-7-0, 7=14-7-0, 8=14-7-0, 9=14-7-0, 10=14-7-0, 11=14-7-0, 12=14-7-0
Max Horiz	1=44 (LC 11)
Max Uplift	8=9 (LC 12), 9=8 (LC 12), 11=8 (LC 12), 12=9 (LC 12)
Max Grav	1=90 (LC 21), 7=90 (LC 22), 8=249 (LC 22), 9=128 (LC 22), 10=215 (LC 1), 11=128 (LC 21), 12=249 (LC 21)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-118/106, 2-3=0/84, 3-4=0/84, 4-5=0/84, 5-6=0/79, 6-7=-118/99
BOT CHORD	1-12=-55/100, 11-12=-55/38, 10-11=-55/38, 9-10=-55/38, 8-9=-55/38, 7-8=-55/100
WEBS	4-10=-167/0, 3-11=-108/61, 2-12=-161/60, 5-9=-108/61, 6-8=-161/60

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-8 to 3-4-0, Interior (1) 3-4-0 to 7-4-0, Exterior (2) 7-4-0 to 10-4-0, Interior (1) 10-4-0 to 14-7-8 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

- 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.
- 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 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 11, 9 lb uplift at joint 12, 8 lb uplift at joint 9 and 9 lb uplift at joint 8.
- 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 truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



May 8, 2024

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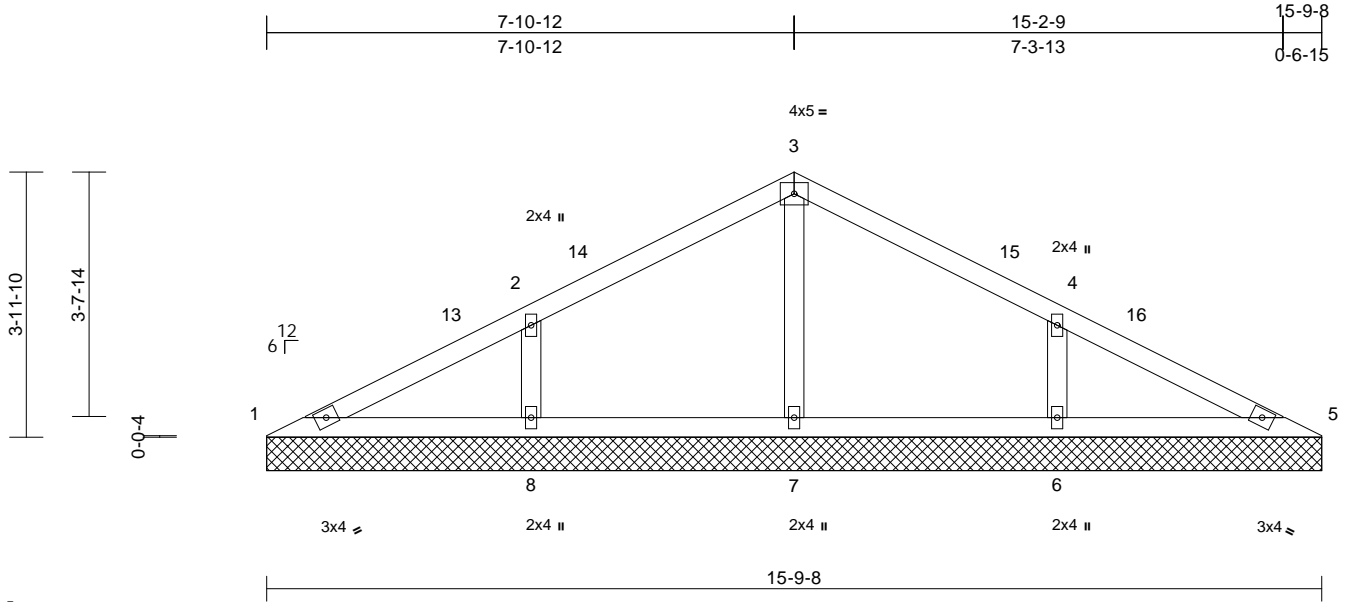
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss V05	Truss Type Valley	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417070
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:17
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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	1.00	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 57 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=15-9-8, 5=15-9-8, 6=15-9-8, 7=15-9-8, 8=15-9-8
Max Horiz 1=49 (LC 11)
Max Uplift 6=18 (LC 12), 8=18 (LC 12)
Max Grav 1=101 (LC 21), 5=101 (LC 22), 6=367 (LC 22), 7=352 (LC 1), 8=367 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-138/140, 2-3=0/126, 3-4=0/126, 4-5=-138/134
BOT CHORD 1-8=-71/118, 7-8=-71/38, 6-7=-71/38, 5-6=-71/118
WEBS 2-8=-263/86, 4-6=-263/86, 3-7=-286/25

5) Gable studs spaced at 4-0-0 oc.
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) All bearings are assumed to be SP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 8 and 18 lb uplift at joint 6.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 7-11-4, Exterior (2) 7-11-4 to 10-11-4, Interior (1) 10-11-4 to 15-10-0 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
 - 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.
 - Gable requires continuous bottom chord bearing.



May 8, 2024

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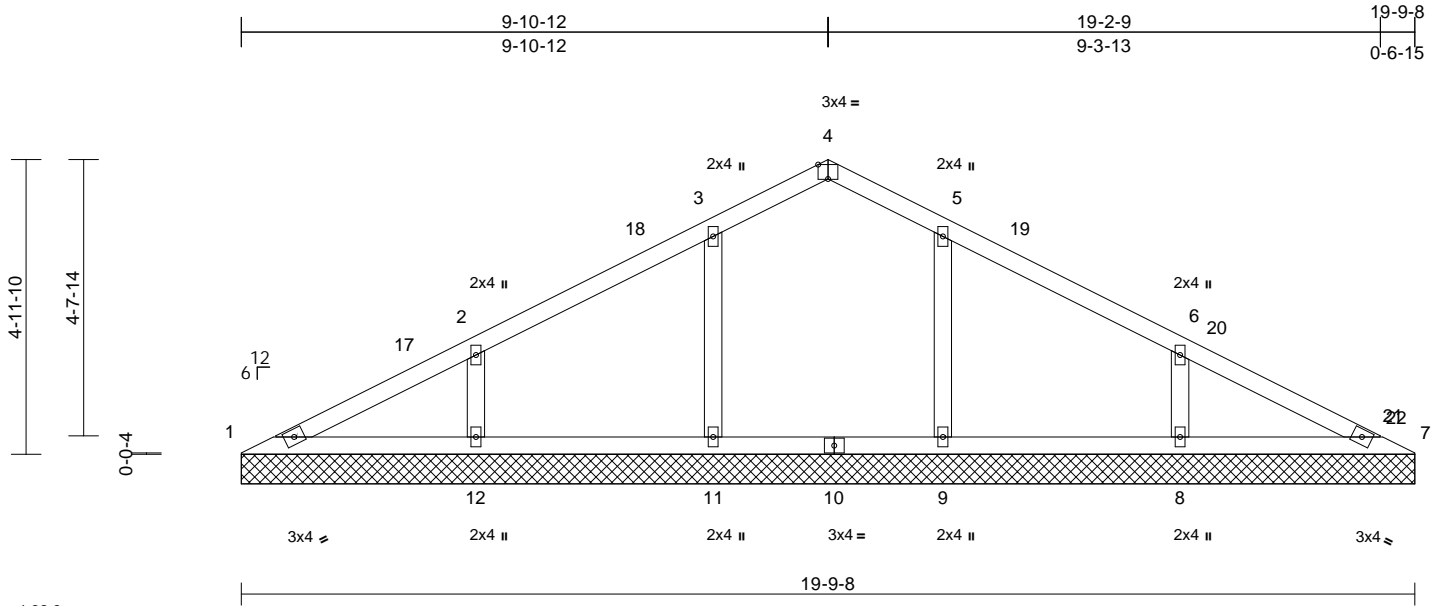
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss V06	Truss Type Valley	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	I65417071
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Carolina Structural Systems (Star, NC), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:18
ID:GmmJNnEV6ftOr4w7RpGkFLzKLzt-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:38.9

Plate Offsets (X, Y): [4:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 75 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 1=19-9-8, 7=19-9-8, 8=19-9-8,
9=19-9-8, 11=19-9-8, 12=19-9-8
Max Horiz 1=61 (LC 11)
Max Uplift 8=-14 (LC 12), 12=-15 (LC 12)
Max Grav 1=133 (LC 1), 7=102 (LC 1), 8=361
(LC 22), 9=340 (LC 18), 11=342
(LC 17), 12=365 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-209/54, 2-3=-79/38, 3-4=-70/41,
4-5=-70/41, 5-6=-79/37, 6-7=-184/48
BOT CHORD 1-12=-31/192, 11-12=-31/79, 9-11=-31/79,
8-9=-31/79, 7-8=-31/164
WEBS 2-12=-255/78, 3-11=-221/77, 6-8=-253/84,
5-9=-222/77

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust)
Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Exterior (2) 0-0-8 to 3-0-8,
Interior (1) 3-0-8 to 9-11-4, Exterior (2) 9-11-4 to 12-11-4,
Interior (1) 12-11-4 to 19-3-1 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

- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 2-00-00 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 12 and 14 lb uplift at joint 8.
- 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 truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



May 8, 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)



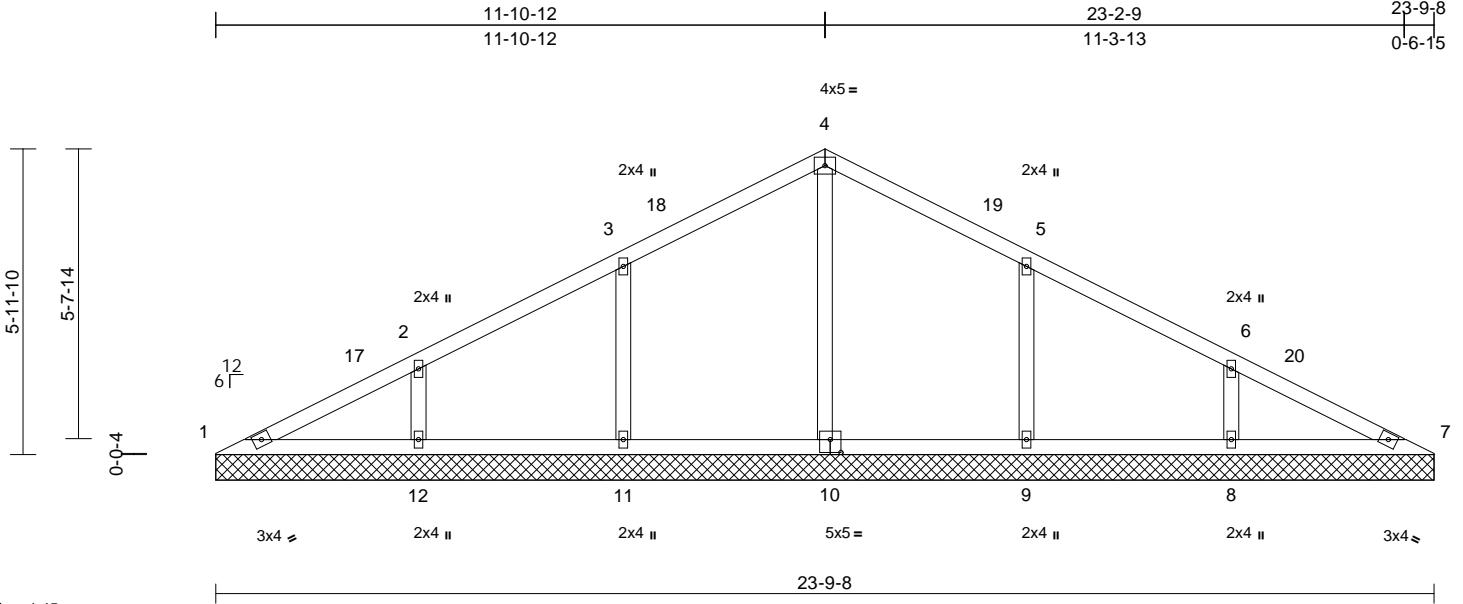
818 Soundside Road
Edenton, NC 27932

Job Q2400926-27	Truss V07	Truss Type Valley	Qty 1	Ply 1	Value Build Homes - Carter Job Reference (optional)	165417072
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Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue May 07 13:10:18
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Page: 1



Scale = 1:45

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 96 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 1=23-9-8, 7=23-9-8, 8=23-9-8,
9=23-9-8, 10=23-9-8, 11=23-9-8,
12=23-9-8
Max Horiz 1=75 (LC 11)
Max Uplift 8=14 (LC 12), 9=20 (LC 12),
11=18 (LC 12), 12=14 (LC 12)
Max Grav 1=113 (LC 21), 7=111 (LC 22),
8=353 (LC 1), 9=352 (LC 18),
10=450 (LC 17), 11=361 (LC 17),
12=353 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

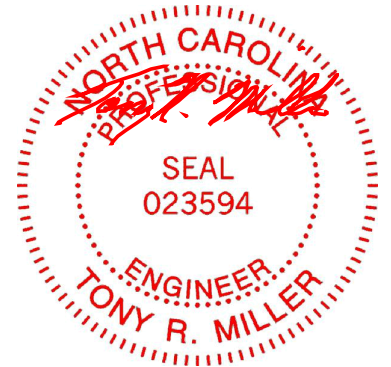
TOP CHORD 1-2=164/127, 2-3=31/116, 3-4=24/102,
4-5=22/100, 5-6=14/104, 6-7=160/107
BOT CHORD 1-12=-53/149, 11-12=-53/52, 9-11=-57/52,
8-9=-57/52, 7-8=-57/137
WEBS 2-12=-245/75, 3-11=-252/91, 6-8=-245/75,
5-9=-252/91, 4-10=-264/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 11-11-4, Exterior (2) 11-11-4 to 14-11-4, Interior (1) 14-11-4 to 23-10-0 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

- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 12, 18 lb uplift at joint 11, 14 lb uplift at joint 8 and 20 lb uplift at joint 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



May 8, 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)

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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

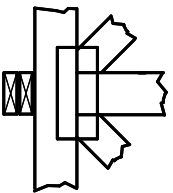
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

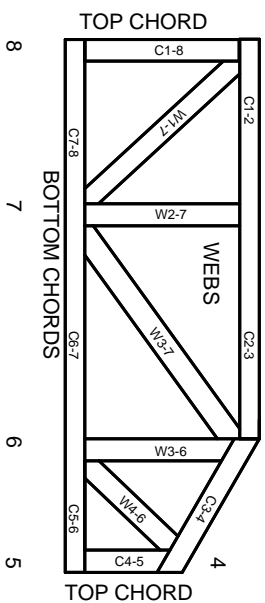
Industry Standards:

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 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.

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