Carter Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #:919-775-1450

Builder: **DRB Homes NC LLC**

Model: **Callaway 1 BR4 GRH**
196 FaNC

THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.
9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By: _____ **Date:** _____

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 24060196-B
196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH

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

Pages or sheets covered by this seal: I66879684 thru I66879708

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

North Carolina COA: C-0844

July 16,2024

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	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879684
24060196-B	F01	Floor	14	1	Job Reference (optional)

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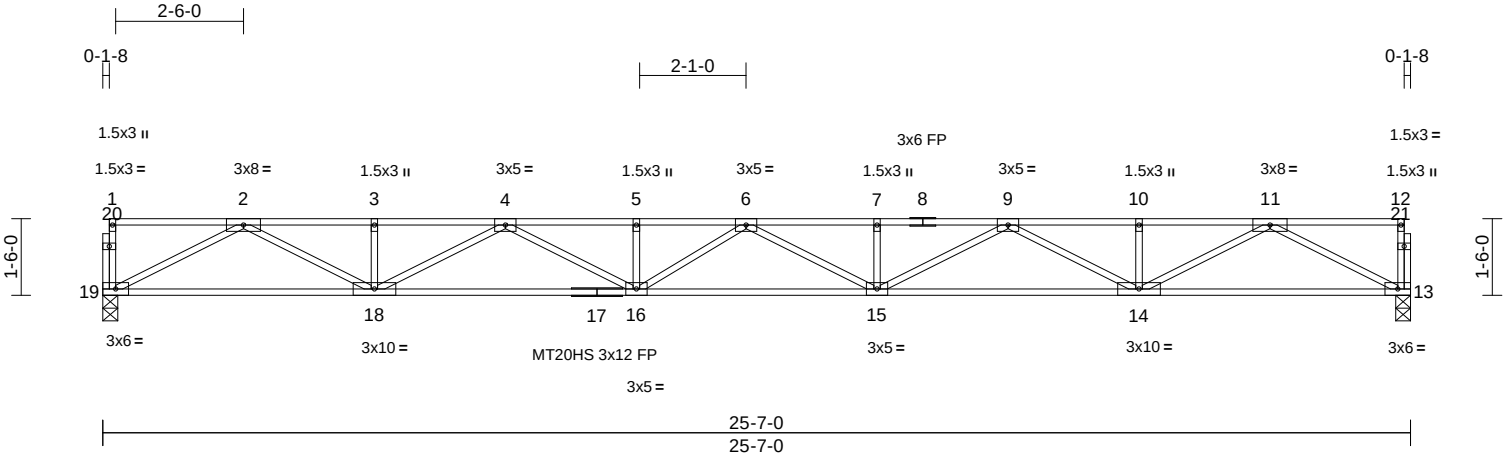

Scale = 1:45.1

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.64	Vert(LL)	-0.51	15-16	>598	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.71	15-16	>429	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.11	13	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 131 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 5-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 13=0-3-8, 19=0-3-8
Max Grav 13=925 (LC 1), 19=925 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-19=-69/0, 12-13=-69/0, 1-2=-3/0, 2-3=-2815/0, 3-4=-2815/0, 4-5=-4147/0, 5-6=-4147/0, 6-7=-4153/0, 7-9=-4153/0, 9-10=-2815/0, 10-11=-2815/0, 11-12=-3/0
BOT CHORD 18-19=0/1609, 16-18=0/3648, 15-16=0/4284, 14-15=0/3646, 13-14=0/1609
WEBS 11-13=-1813/0, 2-19=-1813/0, 11-14=0/1369, 2-18=0/1369, 10-14=-163/0, 3-18=-162/0, 9-14=-943/0, 4-18=-945/0, 9-15=0/576, 4-16=0/567, 7-15=-171/0, 5-16=-150/0, 6-15=-148/0, 6-16=-162/0

NOTES
1) All plates are MT20 plates unless otherwise indicated.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
4) 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

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879685
24060196-B	F02	Floor Girder	1	1	Job Reference (optional)

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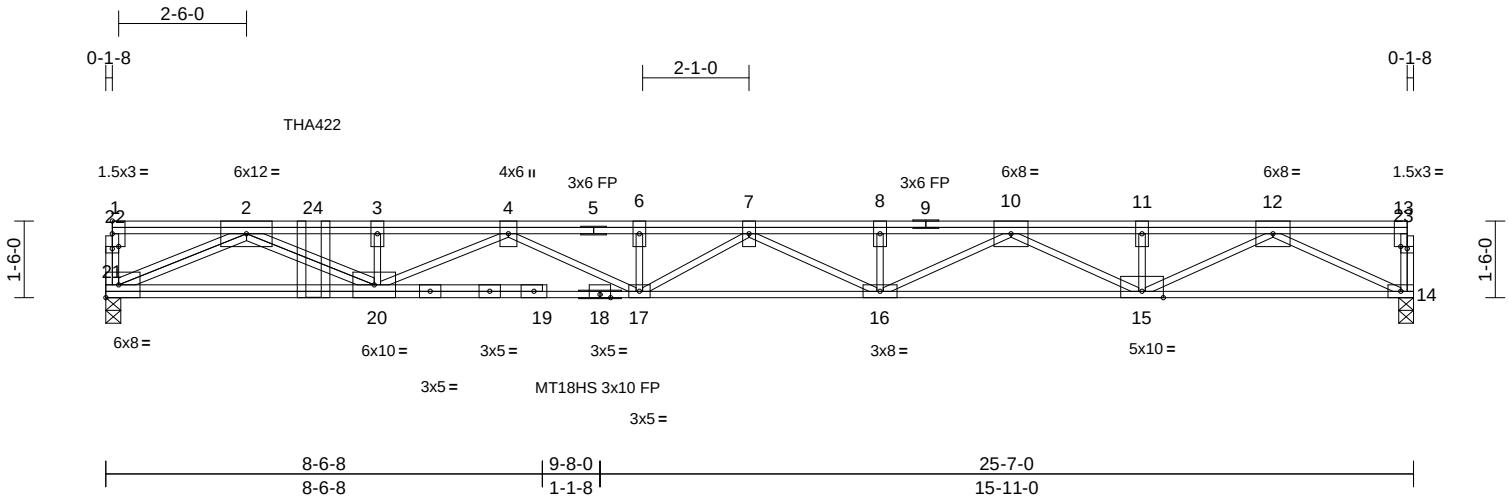

Scale = 1:45.1

Plate Offsets (X, Y): [22:0-1-8,0-0-8], [23:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.78	Vert(LL)	-0.49	16-17	>616	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.69	16-17	>442	360	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.12	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 187 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 1-5,9-1:2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat) *Except* 21-19:2x4 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) 14=0-3-8, 21=0-3-8
Max Grav 14=1116 (LC 1), 21=1964 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-21=0/7, 13-14=-76/0, 1-2=0/0, 2-3=-6279/0, 3-4=-6279/0, 4-6=-6509/0, 6-7=-6509/0, 7-8=-5853/0, 8-10=-5853/0, 10-11=-3696/0, 11-12=-3696/0, 12-13=-4/0
BOT CHORD 20-21=0/4069, 17-20=0/6400, 16-17=0/6302, 15-16=0/4922, 14-15=0/2053
WEBS 12-14=-2291/0, 12-15=0/1847, 11-15=-178/0, 10-15=-1377/0, 10-16=0/1045, 8-16=-203/0, 6-17=-229/0, 7-16=-505/0, 2-20=0/2459, 3-20=-932/0, 4-20=-134/0, 4-17=0/123, 7-17=0/243, 2-21=-4508/0

NOTES
1) All plates are MT20 plates unless otherwise indicated.
2) All plates are 3x6 MT20 unless otherwise indicated.
3) The Fabrication Tolerance at joint 18 = 11%
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 4-0-12 from the left end to connect truss(es) to front face of top chord.
7) Fill all nail holes where hanger is in contact with lumber.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-21=-7, 1-13=-67
Concentrated Loads (lb)
Vert: 24=-1231 (F)

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH
24060196-B	F03	Floor	3	1	I66879686
					Job Reference (optional)

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

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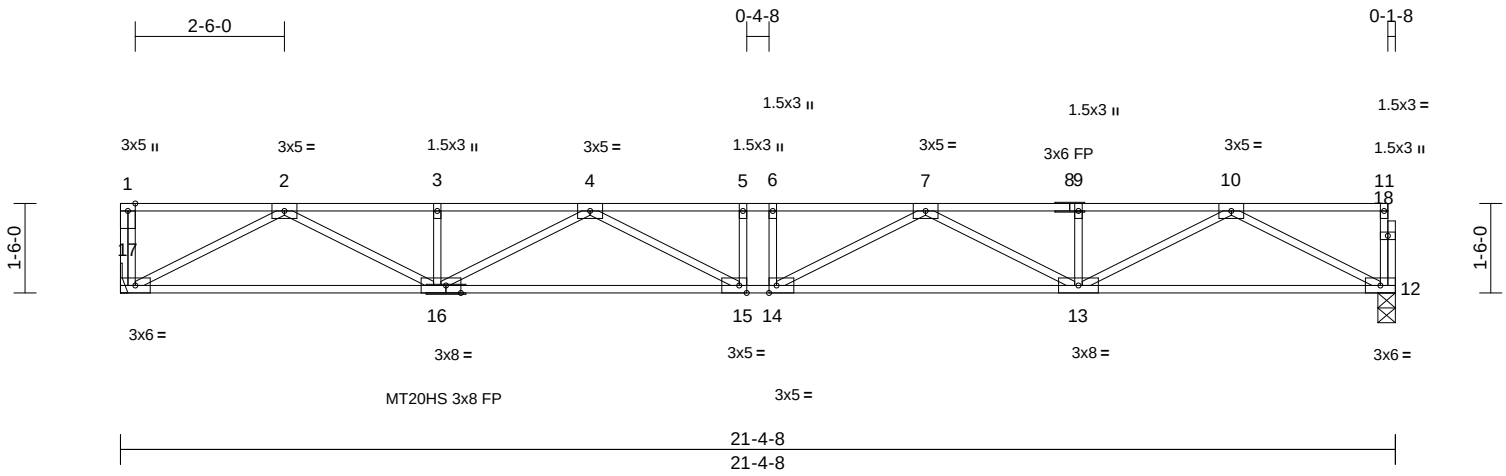

Scale = 1:38.6

Plate Offsets (X, Y): [14:0-1-8,Edge], [15:0-1-8,Edge], [16:0-3-0,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.27	14-15	>936	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.81	Vert(CT)	-0.37	13-14	>678	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.07	12	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 111 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=0-3-8, 17= Mechanical
Max Grav 12=770 (LC 1), 17=775 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-17=-70/0, 11-12=-69/0, 1-2=0/0, 2-3=-2235/0, 3-4=-2235/0, 4-5=-2992/0, 5-6=-2992/0, 6-7=-2992/0, 7-9=-2235/0, 9-10=-2235/0, 10-11=-3/0
BOT CHORD 15-17=0/2780, 14-15=0/2992, 13-14=0/2780, 12-13=0/1315
WEBS 10-12=-1481/0, 2-17=-1486/0, 10-13=0/1044, 2-16=0/1043, 9-13=-163/0, 3-16=-162/0, 7-13=-618/0, 4-16=-618/0, 7-14=-80/425, 4-15=-80/425, 5-15=-115/0, 6-14=-115/0

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879687
24060196-B	F04	Floor	5	1	Job Reference (optional)

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

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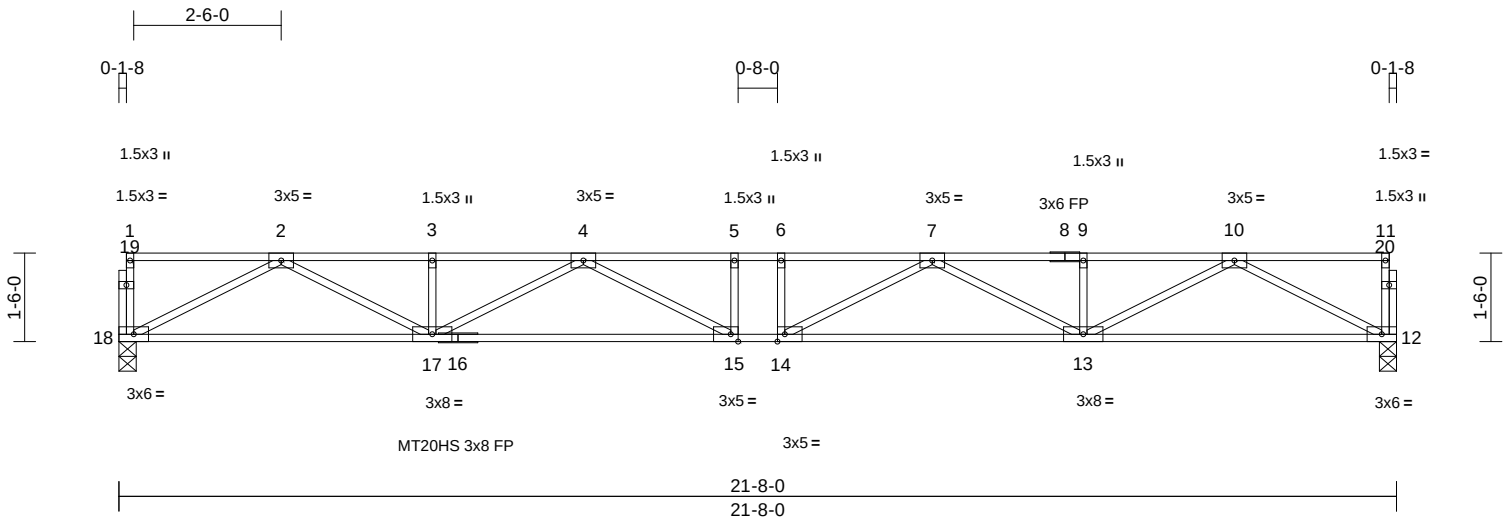

Scale = 1:39.1

Plate Offsets (X, Y): [14:0-1-8,Edge], [15:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.42	Vert(LL)	-0.29	14-15	>901	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.39	15-17	>654	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.07	12	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 112 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=0-3-8, 18=0-3-8
Max Grav 12=781 (LC 1), 18=781 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-69/0, 11-12=-69/0, 1-2=-3/0, 2-3=-2276/0, 3-4=-2276/0, 4-5=-3069/0, 5-6=-3069/0, 6-7=-3069/0, 7-9=-2276/0, 9-10=-2276/0, 10-11=-3/0
BOT CHORD 17-18=0/1336, 15-17=0/2840, 14-15=0/3069, 13-14=0/2840, 12-13=0/1336
WEBS 10-12=-1504/0, 2-18=-1504/0, 10-13=0/1067, 2-17=0/1067, 9-13=-162/0, 3-17=-162/0, 7-13=-640/0, 4-17=-640/0, 7-14=-71/459, 4-15=-71/459, 5-15=-136/0, 6-14=-136/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH
24060196-B	F05	Floor	1	1	I66879688
					Job Reference (optional)

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

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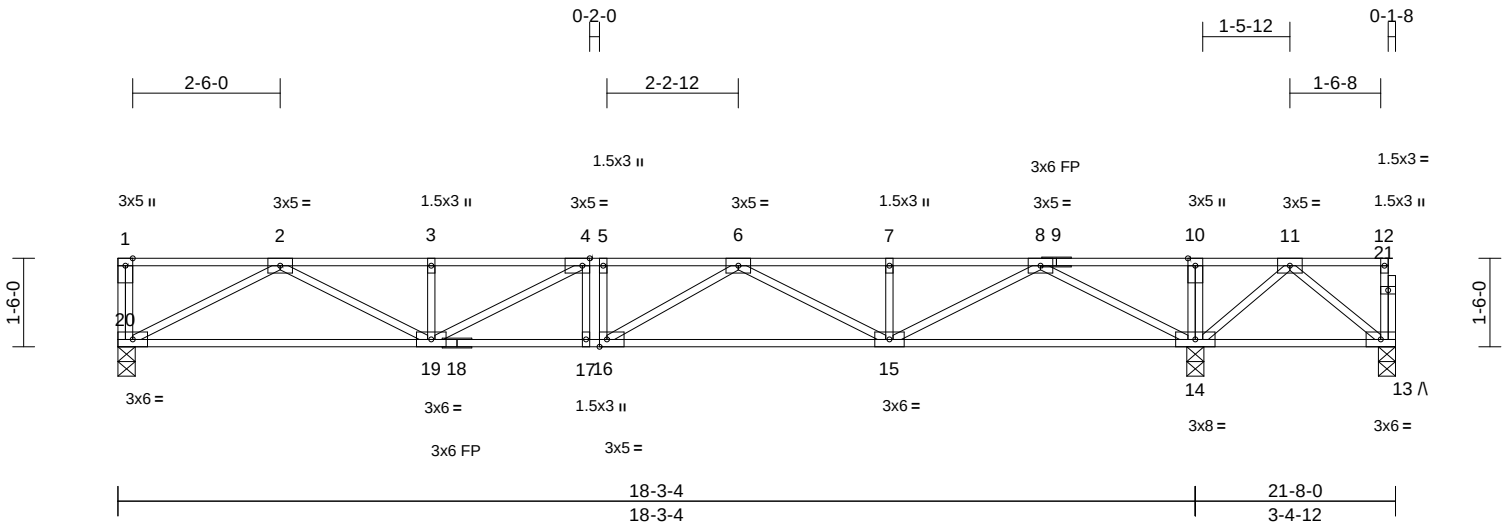

Scale = 1:39.1

Plate Offsets (X, Y): [4:0-1-8,Edge], [16:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	-0.16	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.64	Vert(CT)	-0.22	15-16	>977	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.05	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 117 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, Except:
6-0-0 oc bracing: 13-14.

REACTIONS (size) 13=0-3-8, 14=0-3-8, 20=0-3-8
Max Uplift 13=REL
Max Grav 14=922 (LC 1), 20=660 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-20=-71/0, 12-13=-46/0, 1-2=0/0, 2-3=-1801/0, 3-4=-1801/0, 4-5=-2146/0, 5-6=-2146/0, 6-7=-1769/0, 7-8=-1769/0, 8-10=0/257, 10-11=0/257, 11-12=-2/0
BOT CHORD 19-20=0/1096, 17-19=0/2146, 16-17=0/2146, 15-16=0/2119, 14-15=0/1042, 13-14=-61/0
WEBS 10-14=-153/0, 8-14=-1253/0, 2-20=-1237/0, 8-15=0/859, 2-19=0/800, 7-15=-169/0, 3-19=-175/0, 6-15=-429/0, 4-19=-425/0, 6-16=-133/264, 4-17=-113/66, 5-16=-7/27, 11-13=0/82, 11-14=-263/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) Bearings are assumed to be: , Joint 13 User Defined , Joint 13 SP No.3 .
4) "/\" indicates Released bearing: allow for upward movement at joint(s) 13.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879689
24060196-B	F06	Floor	1	1	Job Reference (optional)

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

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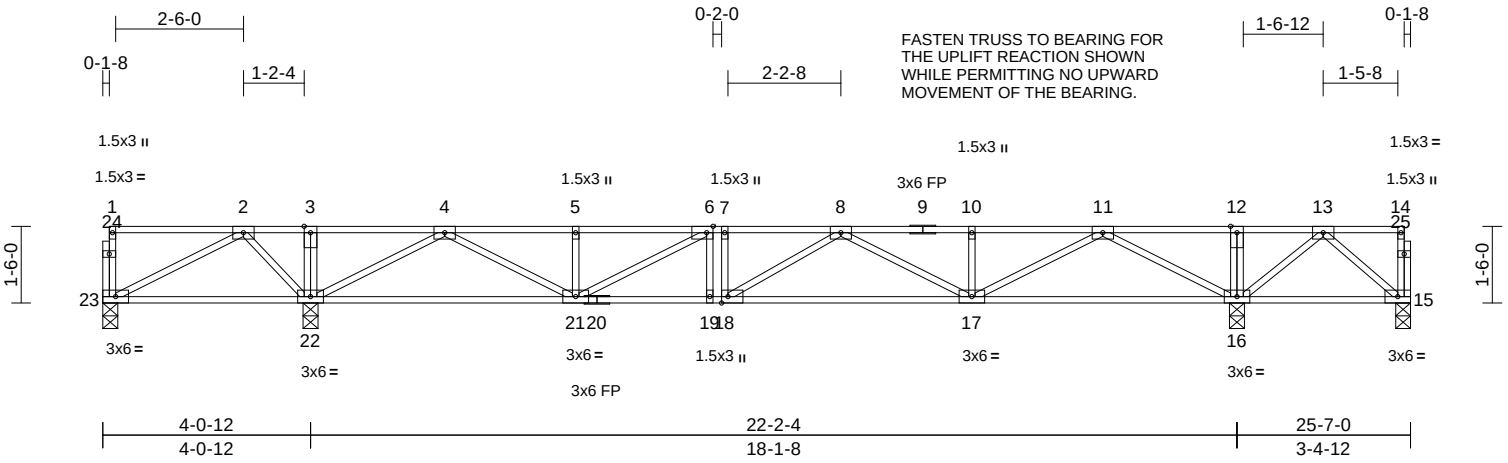

Scale = 1:45.1

Plate Offsets (X, Y): [6:0-1-8,Edge], [18:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	-0.07	17-18	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.34	Vert(CT)	-0.11	17-18	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01	16	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 139 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 6-0-0 oc bracing.

REACTIONS (size) 15=0-3-8, 16=0-3-8, 22=0-3-8, 23=0-3-8
Max Uplift 15=-475 (LC 6), 23=-349 (LC 6)
Max Grav 15=-25 (LC 5), 16=1303 (LC 4), 22=1198 (LC 3), 23=27 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-23=-71/0, 14-15=-42/0, 1-2=-3/0, 2-3=0/1092, 3-4=0/1092, 4-5=-683/0, 5-6=-683/0, 6-7=-1026/0, 7-8=-1026/0, 8-10=-645/0, 10-11=-645/0, 11-12=0/1174, 12-13=0/1174, 13-14=-2/0
BOT CHORD	22-23=-709/0, 21-22=-143/79, 19-21=0/1026, 18-19=0/1026, 17-18=0/996, 16-17=-134/1, 15-16=-567/0
WEBS	3-22=-123/0, 12-16=-159/0, 11-16=-1225/0, 4-22=-1196/0, 11-17=0/831, 4-21=0/798, 10-17=-170/0, 5-21=-179/0, 8-17=-400/0, 6-21=-428/0, 8-18=-132/191, 6-19=-88/73, 7-18=0/26, 2-23=0/801, 2-22=-666/0, 13-16=-859/0, 13-15=0/752

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 475 lb uplift at joint 15.
4) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 23. This connection is for uplift only and does not consider lateral forces.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879690
24060196-B	F07	Floor	1	1	Job Reference (optional)

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

Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:05 Page: 1
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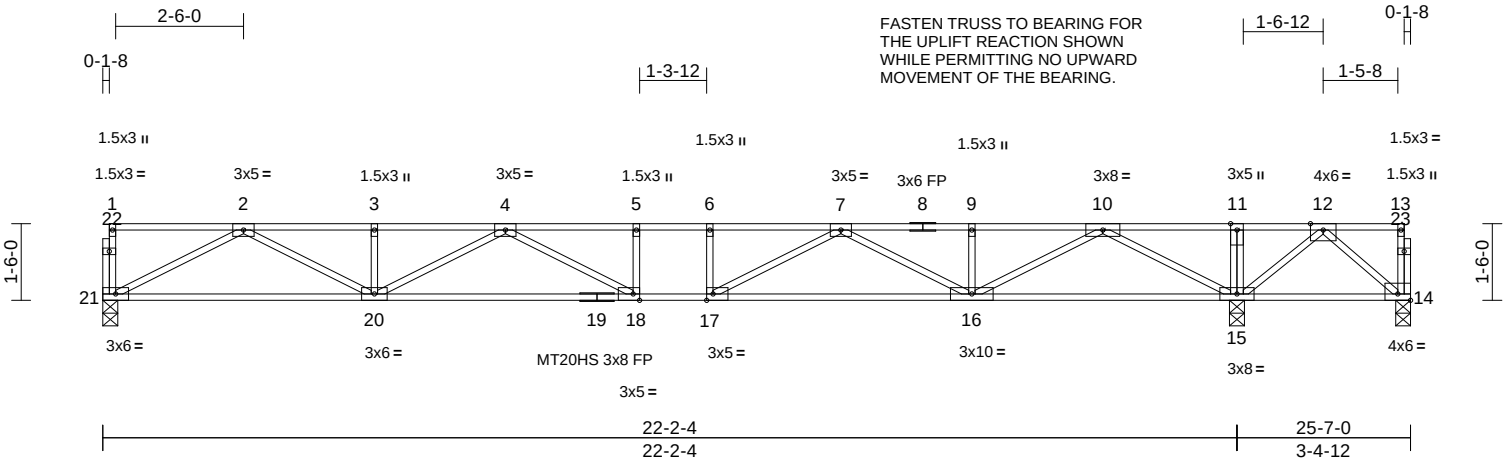


Scale = 1:45.1

Plate Offsets (X, Y): [14:Edge,0-1-8], [17:0-1-8,Edge], [18:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.79	Vert(LL)	-0.27	18-20	>967	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.39	18-20	>679	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.04	15	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 133 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 6-0-0 oc bracing.

REACTIONS (size) 14=0-3-8, 15=0-3-8, 21=0-3-8
Max Uplift 14=-898 (LC 3)
Max Grav 14=-141 (LC 4), 15=1999 (LC 1), 21=667 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-21=-68/0, 13-14=-42/0, 1-2=-3/0, 2-3=-1850/0, 3-4=-1850/0, 4-5=-2143/0, 5-6=-2143/0, 6-7=-2143/0, 7-9=-673/0, 9-10=-673/0, 10-11=0/2167, 11-12=0/2167, 12-13=-2/0
BOT CHORD 20-21=0/1122, 18-20=0/2201, 17-18=0/2143, 16-17=0/1539, 15-16=-572/0, 14-15=-1051/0
WEBS 11-15=-165/0, 10-15=-1805/0, 2-21=-1264/0, 10-16=0/1408, 2-20=0/825, 9-16=-178/0, 3-20=-152/0, 7-16=-983/0, 4-20=-398/0, 7-17=0/738, 4-18=-246/230, 5-18=-77/42, 6-17=-244/0, 12-14=0/1393, 12-15=-1518/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Bearings are assumed to be: , Joint 14 User Defined , Joint 14 SP No.3 .
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 898 lb uplift at joint 14.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
8) CAUTION, Do not erect truss backwards.

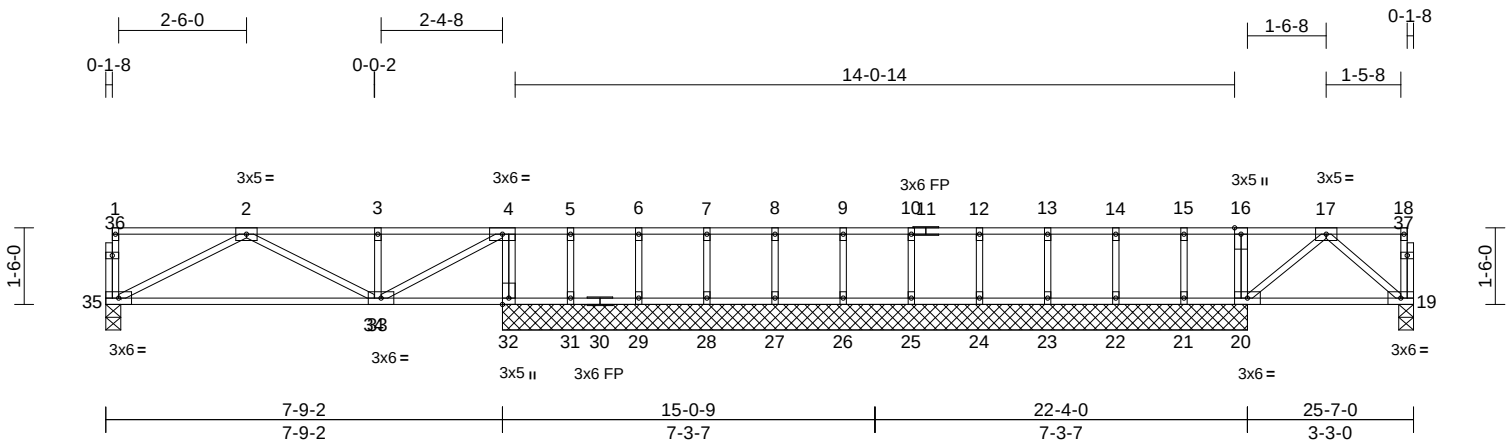
LOAD CASE(S) Standard

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879691
24060196-B	F08	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:05 Page: 1
ID:Px0oyr7DUsJnX0lNnSTHUPyyBzu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:45.1

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.01	34-35	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.23	Vert(CT)	-0.05	34-35	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.00	32	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 129 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 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 34-35,33-34.

REACTIONS (size) 19=0-3-8, 20=14-6-14, 21=14-6-14, 22=14-6-14, 23=14-6-14, 24=14-6-14, 25=14-6-14, 26=14-6-14, 27=14-6-14, 28=14-6-14, 29=14-6-14, 31=14-6-14, 32=14-6-14, 35=0-3-8
Max Grav 19=103 (LC 4), 20=244 (LC 1), 21=215 (LC 3), 22=237 (LC 7), 23=230 (LC 3), 24=232 (LC 7), 25=231 (LC 3), 26=231 (LC 7), 27=232 (LC 3), 28=231 (LC 7), 29=238 (LC 3), 31=234 (LC 7), 32=416 (LC 1), 35=268 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-35=-68/0, 18-19=-40/0, 1-2=-3/0, 2-3=-342/0, 3-4=-342/0, 4-5=0/47, 5-6=0/47, 6-7=0/47, 7-8=0/47, 8-9=0/47, 9-10=0/47, 10-12=0/47, 12-13=0/47, 13-14=0/47, 14-15=0/47, 15-16=0/47, 16-17=0/47, 17-18=-2/0
BOT CHORD 34-35=0/357, 33-34=0/342, 32-33=-47/0, 31-32=-47/0, 29-31=-47/0, 28-29=-47/0, 27-28=-47/0, 26-27=-47/0, 25-26=-47/0, 24-25=-47/0, 23-24=-47/0, 22-23=-47/0, 21-22=-47/0, 20-21=-47/0, 19-20=-11/65
WEBS 4-32=-409/0, 16-20=-143/0, 5-31=-225/0, 6-29=-229/0, 7-28=-222/0, 8-27=-223/0, 9-26=-222/0, 10-25=-222/0, 12-24=-222/0, 13-23=-222/0, 14-22=-226/0, 15-21=-216/0, 2-35=-399/0, 2-34=-70/59, 3-33=-181/0, 4-33=0/440, 17-19=-84/14, 17-20=-123/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
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) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 19-35=-7, 1-4=-67, 4-16=-167, 16-18=-67

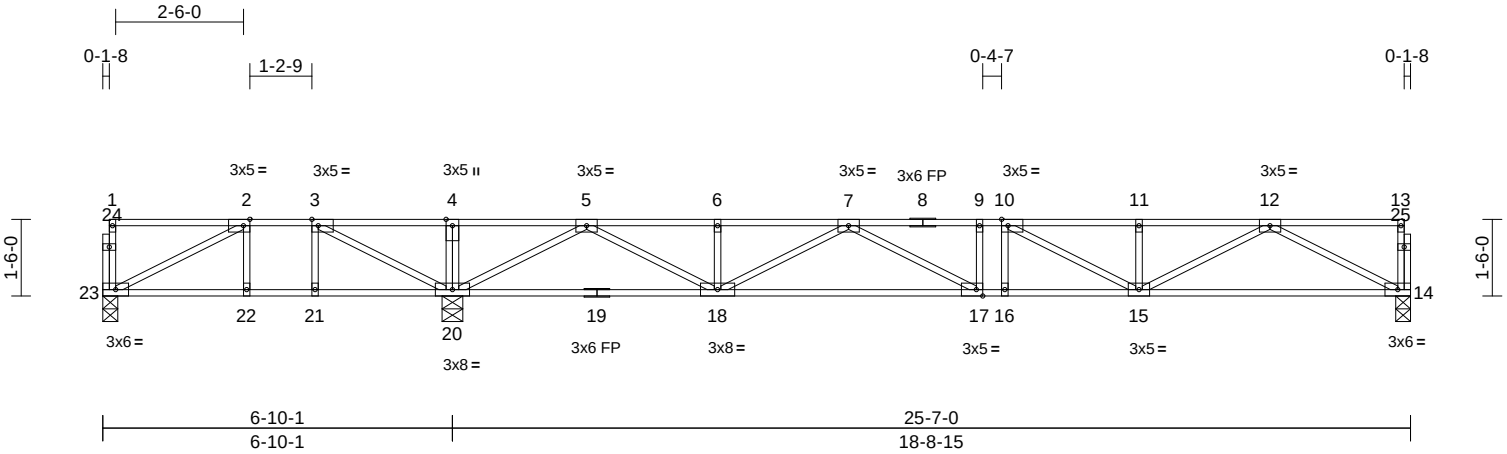
July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879692
24060196-B	F09	Floor	1	1	Job Reference (optional)

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

Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:05 ID:LbgzxLM8?ij5Jxi1PyJkmPyyBzb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:45.1

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [10:0-1-8,Edge], [17:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.64	Vert(LL)	-0.15	17-18	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.58	Vert(CT)	-0.22	17-18	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.04	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 135 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 6-0-0 oc bracing.

REACTIONS (size) 14=0-3-8, 20=0-4-14, 23=0-3-8
Max Uplift 23=-97 (LC 4)
Max Grav 14=627 (LC 7), 20=1159 (LC 8), 23=193 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-98/0, 13-14=-69/0, 1-2=-4/0, 2-3=-193/314, 3-4=0/898, 4-5=0/898, 5-6=-1389/0, 6-7=-1389/0, 7-9=-1985/0, 9-10=-1985/0, 10-11=-1695/0, 11-12=-1695/0, 12-13=-3/0
BOT CHORD 22-23=-314/193, 21-22=-314/193, 20-21=-314/193, 18-20=0/543, 17-18=0/1858, 16-17=0/1985, 15-16=0/1985, 14-15=0/1041
WEBS 4-20=-162/0, 3-20=-780/0, 2-23=-212/355, 2-22=-110/0, 3-21=0/138, 5-20=-1401/0, 12-14=-1171/0, 5-18=0/1000, 12-15=0/742, 6-18=-166/0, 11-15=-181/0, 7-18=-568/0, 10-15=-415/5, 7-17=-73/323, 9-17=-59/6, 10-16=-87/73

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 23. This connection is for uplift only and does not consider lateral forces.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879693
24060196-B	F11	Floor	5	1	Job Reference (optional)

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

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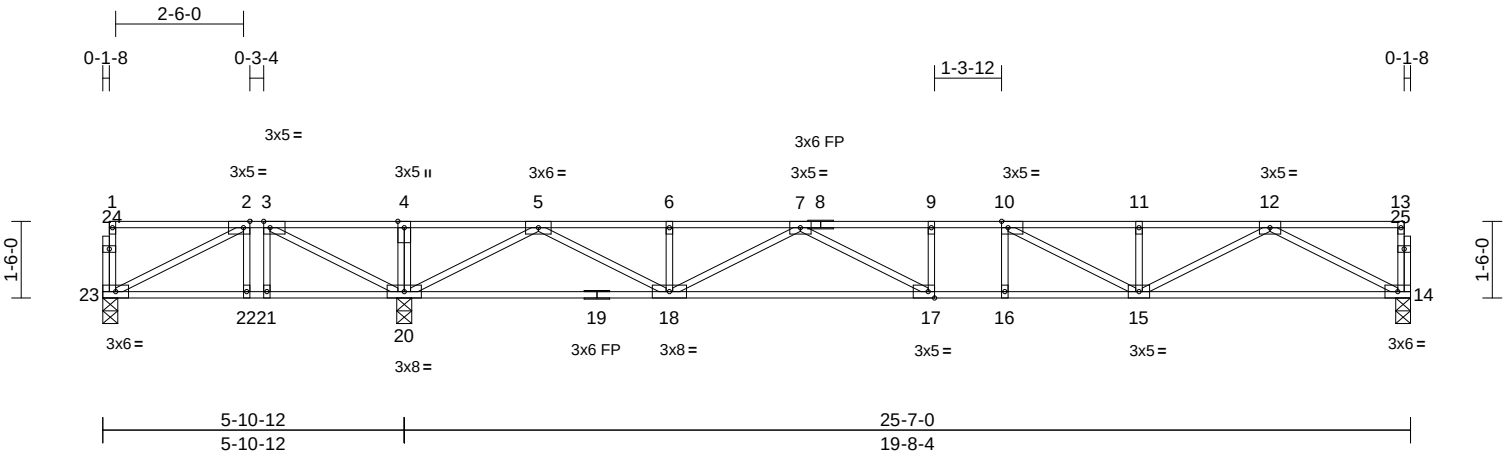

Scale = 1:45.1

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [10:0-1-8,Edge], [17:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.15	17-18	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.65	Vert(CT)	-0.22	17-18	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.03	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 135 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 6-0-0 oc bracing.

REACTIONS (size) 14=0-3-8, 20=0-3-8, 23=0-3-8
Max Uplift 23=-306 (LC 4)
Max Grav 14=608 (LC 7), 20=1406 (LC 1), 23=99 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-89/0, 13-14=-70/0, 1-2=-4/0, 2-3=-26/694, 3-4=0/1536, 4-5=0/1536, 5-6=-923/0, 6-7=-923/0, 7-9=-1858/0, 9-10=-1858/0, 10-11=-1627/0, 11-12=-1627/0, 12-13=-3/0
BOT CHORD 22-23=-694/26, 21-22=-694/26, 20-21=-694/26, 18-20=-160/0, 17-18=0/1557, 16-17=0/1858, 15-16=0/1858, 14-15=0/1004
WEBS 4-20=-171/0, 3-20=-1110/0, 2-23=-25/781, 2-22=-252/0, 3-21=0/272, 5-20=-1568/0, 12-14=-1130/0, 5-18=0/1161, 12-15=0/707, 6-18=-168/0, 11-15=-199/0, 7-18=-731/0, 10-15=-396/11, 7-17=0/461, 9-17=-133/0, 10-16=-70/56

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 23. This connection is for uplift only and does not consider lateral forces.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879694
24060196-B	F12	Floor	5	1	Job Reference (optional)

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

Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:05 Page: 1
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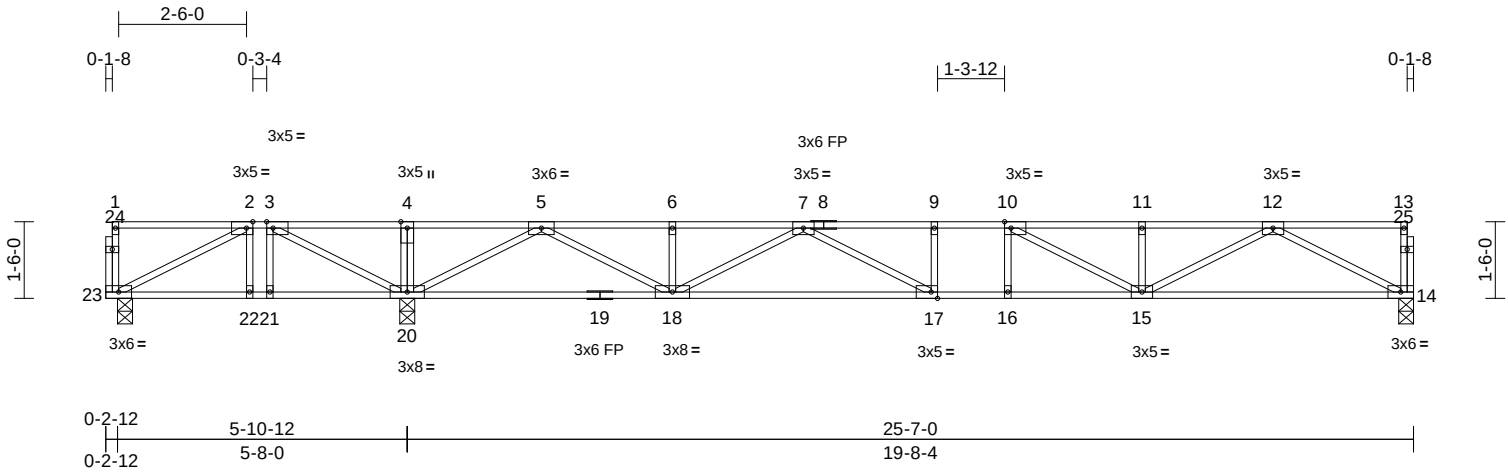

Scale = 1:45.1

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [10:0-1-8,Edge], [17:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.15	17-18	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.65	Vert(CT)	-0.22	17-18	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.03	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 135 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 6-0-0 oc bracing.

REACTIONS (size) 14=0-3-8, 20=0-3-8, 23=0-3-8
Max Uplift 23=-306 (LC 4)
Max Grav 14=608 (LC 7), 20=1406 (LC 1), 23=99 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-89/0, 13-14=-70/0, 1-2=-4/0, 2-3=-26/694, 3-4=0/1536, 4-5=0/1536, 5-6=-923/0, 6-7=-923/0, 7-9=-1858/0, 9-10=-1858/0, 10-11=-1627/0, 11-12=-1627/0, 12-13=-3/0
BOT CHORD 22-23=-694/26, 21-22=-694/26, 20-21=-694/26, 18-20=-160/0, 17-18=0/1557, 16-17=0/1858, 15-16=0/1858, 14-15=0/1004
WEBS 4-20=-171/0, 3-20=-1110/0, 2-23=-25/781, 2-22=-252/0, 3-21=0/272, 5-20=-1568/0, 12-14=-1130/0, 5-18=0/1161, 12-15=0/707, 6-18=-168/0, 11-15=-199/0, 7-18=-731/0, 10-15=-396/11, 7-17=0/461, 9-17=-133/0, 10-16=-70/56

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 306 lb uplift at joint 23.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879695
24060196-B	F13	Floor	3	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:06 Page: 1
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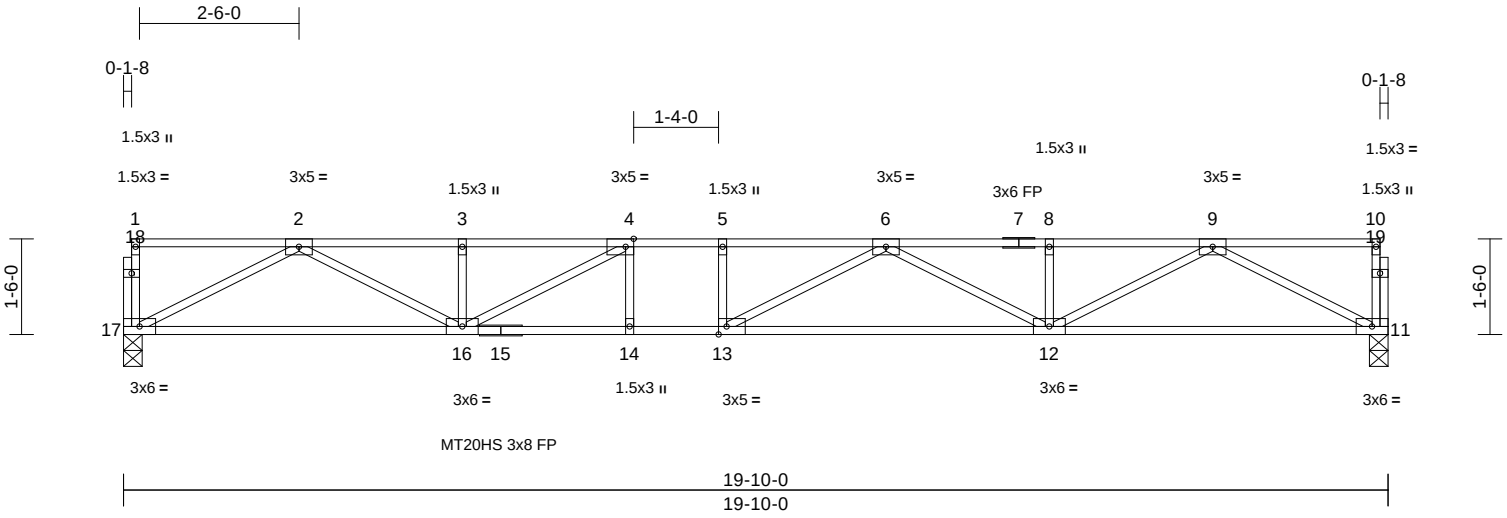


Scale = 1:36.1

Plate Offsets (X, Y): [4:0-1-8,Edge], [13:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.26	12-13	>907	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.37	12-13	>631	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 102 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=0-3-8, 17=0-3-8
Max Grav 11=714 (LC 1), 17=714 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-17=-69/0, 10-11=-68/0, 1-2=-3/0, 2-3=-2013/0, 3-4=-2013/0, 4-5=-2518/0, 5-6=-2518/0, 6-8=-2025/0, 8-9=-2025/0, 9-10=-3/0
BOT CHORD 16-17=0/1206, 14-16=0/2518, 13-14=0/2518, 12-13=0/2464, 11-12=0/1210
WEBS 9-11=-1363/0, 2-17=-1357/0, 9-12=0/924, 2-16=0/916, 8-12=-155/0, 3-16=-187/16, 6-12=-498/0, 4-16=-684/0, 6-13=-166/325, 4-14=-39/113, 5-13=-95/11

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

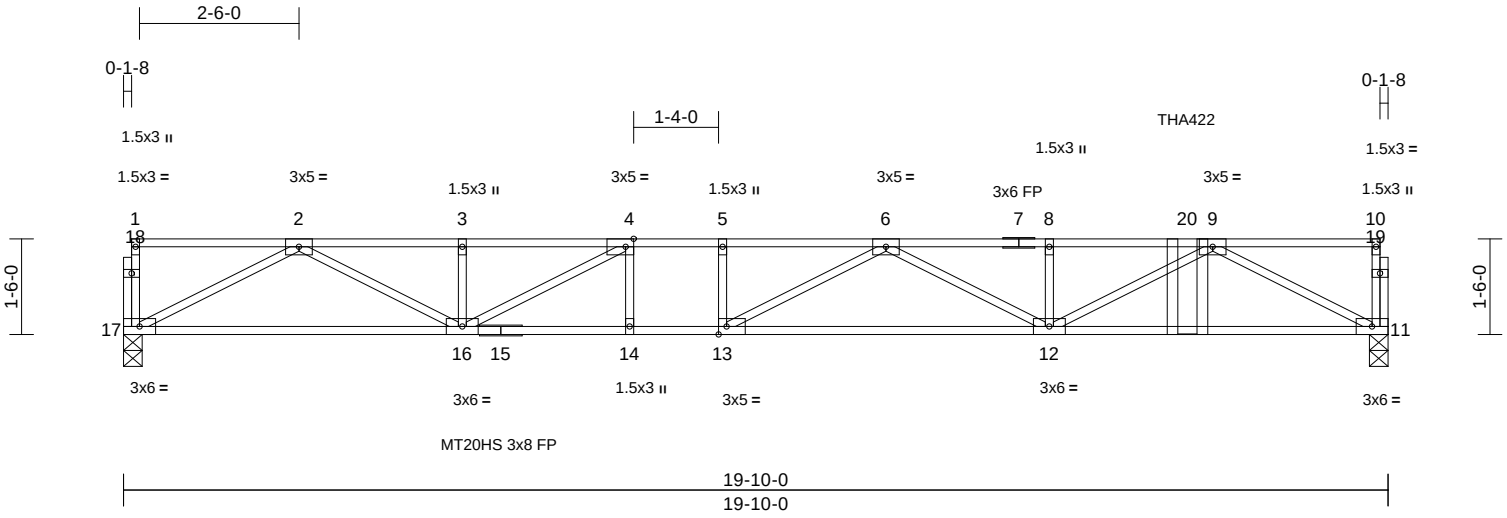
LOAD CASE(S) Standard

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879696
24060196-B	F14	Floor Girder	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:06 Page: 1
ID:nQgEN7t_FIojel1p1wXHf3yyBwM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.1

Plate Offsets (X, Y): [4:0-1-8,Edge], [13:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.26	12-13	>889	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.99	Vert(CT)	-0.38	12-13	>622	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 102 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=0-3-8, 17=0-3-8
Max Grav 11=716 (LC 1), 17=714 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-17=-69/0, 10-11=-68/0, 1-2=-3/0, 2-3=-2014/0, 3-4=-2014/0, 4-5=-2520/0, 5-6=-2520/0, 6-8=-2029/0, 8-9=-2029/0, 9-10=-3/0
BOT CHORD 16-17=0/1206, 14-16=0/2520, 13-14=0/2520, 12-13=0/2466, 11-12=0/1214
WEBS 9-11=-1367/0, 2-17=-1358/0, 9-12=0/924, 2-16=0/917, 8-12=-156/0, 3-16=-187/16, 6-12=-497/0, 4-16=-694/0, 6-13=-175/324, 4-14=-39/116, 5-13=-94/13

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 16-8-4 from the left end to connect truss (es) to front face of top chord.
7) Fill all nail holes where hanger is in contact with lumber.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

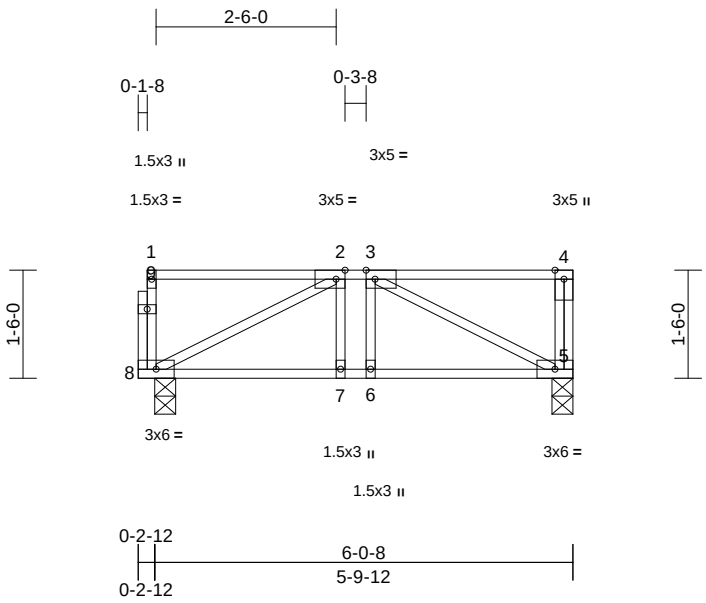
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 11-17=-7, 1-10=-67
Concentrated Loads (lb)
Vert: 20=-2 (F)

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879697
24060196-B	F15	Floor	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:06 Page: 1
ID:3ooBbah4e?6G24GDU7I3M6yyBzA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:32

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

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.29	Vert(LL)	-0.01	5-6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.14	Vert(CT)	-0.02	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							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) 5=0-3-8, 8=0-3-8
Max Grav 5=212 (LC 1), 8=208 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-75/0, 4-5=-76/0, 1-2=-3/0, 2-3=-258/0, 3-4=0/0
BOT CHORD 7-8=0/258, 6-7=0/258, 5-6=0/258
WEBS 3-5=-290/0, 2-8=-287/0, 2-7=-58/86, 3-6=-62/82

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
3) 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.
4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

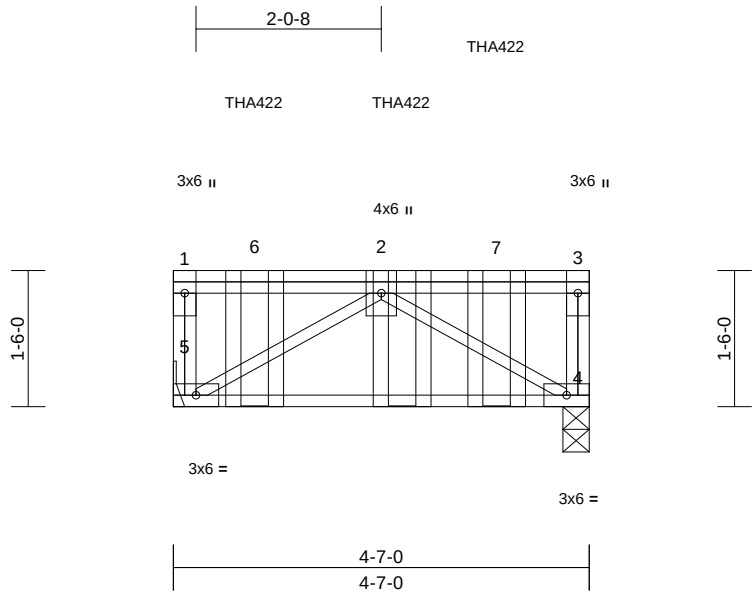
July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH
24060196-B	F17	Floor Girder	1	1	I66879698 Job Reference (optional)

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

Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:06 Page: 1
ID:I3uRdHC2WCX9ih2UVfa8bAyyByV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:25.4

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.04	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.01	4	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 34 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 4-7-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-8, 5= Mechanical
Max Grav 4=1233 (LC 1), 5=1275 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-429/0, 3-4=-387/0, 1-2=0/0, 2-3=0/0
BOT CHORD 4-5=0/1372
WEBS 2-4=-1605/0, 2-5=-1605/0

NOTES
1) Refer to girder(s) for truss to truss connections.
2) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
3) 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.
4) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 1-7-8 oc max. starting at 0-10-12 from the left end to 3-6-12 to connect truss(es) to back face of top chord.
5) Fill all nail holes where hanger is in contact with lumber.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-5=-7, 1-3=-67
Concentrated Loads (lb)
Vert: 2=-730 (B), 6=-730 (B), 7=-730 (B)

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH
24060196-B	F18	Floor	1	1	I66879699
					Job Reference (optional)

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

Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:06

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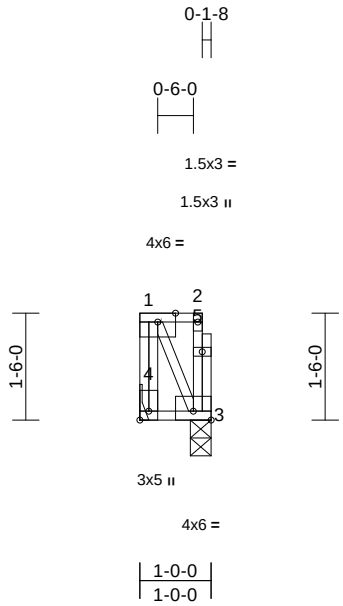


Scale = 1:32.3

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

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.00	Vert(CT)	0.00	4	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 12 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 1-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3=0-3-8, 4= Mechanical
Max Grav 3=24 (LC 1), 4=27 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-25/0, 2-3=-23/0, 1-2=-1/0
BOT CHORD 3-4=0/0
WEBS 1-3=0/2

NOTES

1) Refer to girder(s) for truss to truss connections.
2) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
3) 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.
4) CAUTION, Do not erect truss backwards.

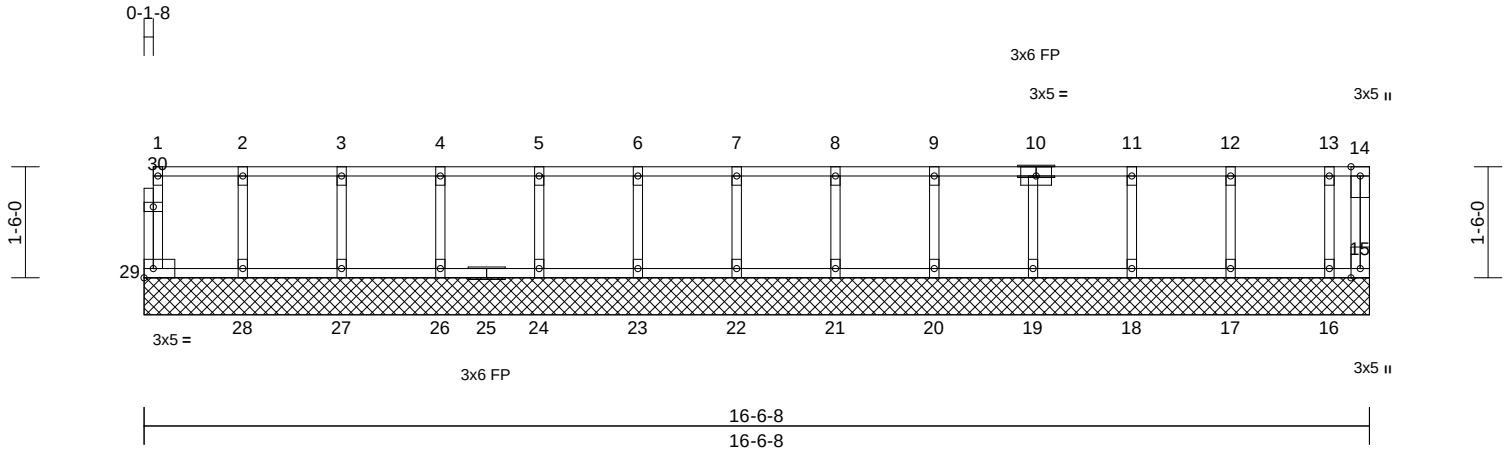
LOAD CASE(S) Standard

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879700
24060196-B	FW16	Floor Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:06 ID:ca1VeAxlr8YtMgUzNBehuKyyBwG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:31.1

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.05	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	0.02	Horiz(TL)	0.00	15	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MR							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 10-0-0 oc bracing.

REACTIONS (size) 15=16-6-8, 16=16-6-8, 17=16-6-8, 18=16-6-8, 19=16-6-8, 20=16-6-8, 21=16-6-8, 22=16-6-8, 23=16-6-8, 24=16-6-8, 26=16-6-8, 27=16-6-8, 28=16-6-8, 29=16-6-8
Max Grav 15=16 (LC 1), 16=60 (LC 1), 17=103 (LC 1), 18=95 (LC 1), 19=98 (LC 1), 20=100 (LC 1), 21=97 (LC 1), 22=98 (LC 1), 23=98 (LC 1), 24=98 (LC 1), 26=98 (LC 1), 27=98 (LC 1), 28=99 (LC 1), 29=34 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-29=-32/0, 14-15=-7/0, 1-2=-3/0, 2-3=-3/0, 3-4=-3/0, 4-5=-3/0, 5-6=-3/0, 6-7=-3/0, 7-8=-3/0, 8-9=-3/0, 9-11=-5/0, 11-12=-5/0, 12-13=-5/0, 13-14=-5/0
BOT CHORD 28-29=0/3, 27-28=0/3, 26-27=0/3, 24-26=0/3, 23-24=0/3, 22-23=0/3, 21-22=0/3, 20-21=0/3, 19-20=0/3, 18-19=0/5, 17-18=0/5, 16-17=0/5, 15-16=0/5
WEBS 2-28=-89/0, 3-27=-89/0, 4-26=-89/0, 5-24=-89/0, 6-23=-89/0, 7-22=-89/0, 8-21=-88/0, 9-20=-91/0, 10-19=-89/0, 11-18=-86/0, 12-17=-93/0, 13-16=-63/0

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) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879701
24060196-B	FW25	Floor Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:06 Page: 1
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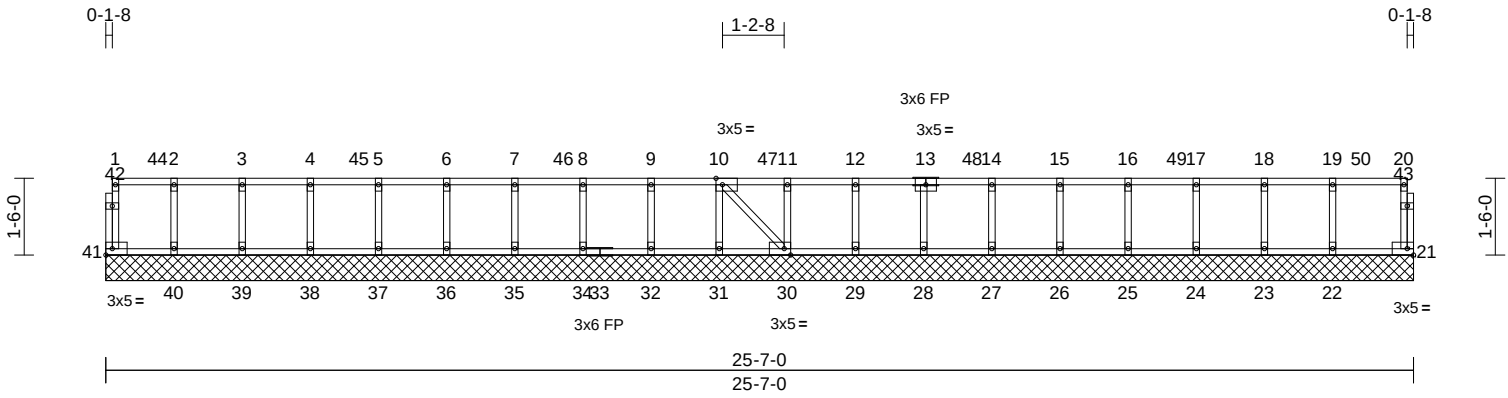

Scale = 1:45.1

Plate Offsets (X, Y): [10:0-1-8,Edge], [30:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.61	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	0.09	Horiz(TL)	0.00	21	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 119 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, Except:
6-0-0 oc bracing: 29-30,28-29.

REACTIONS (size) 21=25-7-0, 22=25-7-0, 23=25-7-0, 24=25-7-0, 25=25-7-0, 26=25-7-0, 27=25-7-0, 28=25-7-0, 29=25-7-0, 30=25-7-0, 31=25-7-0, 32=25-7-0, 34=25-7-0, 35=25-7-0, 36=25-7-0, 37=25-7-0, 38=25-7-0, 39=25-7-0, 40=25-7-0, 41=25-7-0
Max Grav 21=130 (LC 4), 22=378 (LC 4), 23=305 (LC 4), 24=369 (LC 4), 25=189 (LC 4), 26=342 (LC 4), 27=354 (LC 4), 28=194 (LC 4), 29=342 (LC 4), 30=364 (LC 4), 31=188 (LC 4), 32=339 (LC 4), 34=361 (LC 4), 35=192 (LC 4), 36=339 (LC 4), 37=361 (LC 4), 38=191 (LC 4), 39=342 (LC 4), 40=385 (LC 4), 41=87 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-41=-84/0, 20-21=-126/0, 1-2=-4/0, 2-3=-4/0, 3-4=-4/0, 4-5=-4/0, 5-6=-4/0, 6-7=-4/0, 7-8=-4/0, 8-9=-4/0, 9-10=-4/0, 10-11=-1/0, 11-12=-1/0, 12-14=-6/0, 14-15=-6/0, 15-16=-6/0, 16-17=-6/0, 17-18=-6/0, 18-19=-6/0, 19-20=-6/0
BOT CHORD 40-41=0/4, 39-40=0/4, 38-39=0/4, 37-38=0/4, 36-37=0/4, 35-36=0/4, 34-35=0/4, 32-34=0/4, 31-32=0/4, 30-31=0/4, 29-30=0/1, 28-29=0/1, 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
WEBS 2-40=-375/0, 3-39=-333/0, 4-38=-182/0, 5-37=-352/0, 6-36=-330/0, 7-35=-183/0, 8-34=-352/0, 9-32=-330/0, 10-31=-179/0, 11-30=-351/0, 12-29=-334/0, 13-28=-185/0, 14-27=-346/0, 15-26=-333/0, 16-25=-180/0, 17-24=-360/0, 18-23=-297/0, 19-22=-367/0, 10-30=-5/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 374 lb down at 1-0-4, 372 lb down at 2-11-8, 372 lb down at 4-11-8, 372 lb down at 6-11-8, 372 lb down at 8-11-8, 372 lb down at 10-11-8, 372 lb down at 12-11-8, 372 lb down at 14-11-8, 372 lb down at 16-11-8, 372 lb down at 18-11-8, 372 lb down at 20-11-8, and 372 lb down at 22-11-8, and 374 lb down at 24-6-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 21-41=-7, 1-20=-67
Concentrated Loads (lb)
Vert: 3=-186 (B), 6=-186 (B), 9=-186 (B), 12=-186 (B), 15=-186 (B), 18=-186 (B), 44=-187 (B), 45=-186 (B), 46=-186 (B), 47=-186 (B), 48=-186 (B), 49=-186 (B), 50=-187 (B)

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879702
24060196-B	A01	Common	17	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:02 Page: 1
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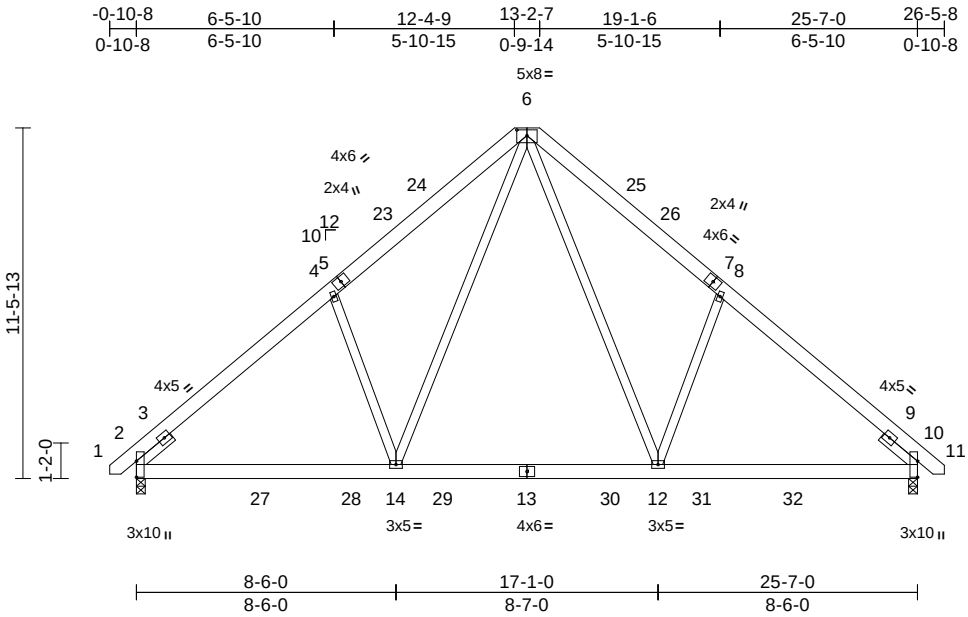

Scale = 1:75.5

Plate Offsets (X, Y): [6:0-4-0,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.08	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.12	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.03	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 199 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except* 12-8,14-4:2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=260 (LC 13)
Max Uplift 2=-87 (LC 14), 10=-87 (LC 15)
Max Grav 2=1240 (LC 25), 10=1240 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-4=-1587/153, 4-6=-1528/270, 6-8=-1528/270, 8-10=-1587/153, 10-11=0/27
BOT CHORD 2-14=-208/1148, 12-14=0/784, 10-12=-46/1111
WEBS 6-12=-189/739, 8-12=-347/285, 6-14=-188/739, 4-14=-347/284

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-5 to 2-3-11, Interior (1) 2-3-11 to 9-9-8, Exterior(2R) 9-9-8 to 15-9-8, Interior (1) 15-9-8 to 23-3-5, Exterior(2E) 23-3-5 to 26-3-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) 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, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH
24060196-B	A02	Common	8	1	I66879703 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:03 Page: 1

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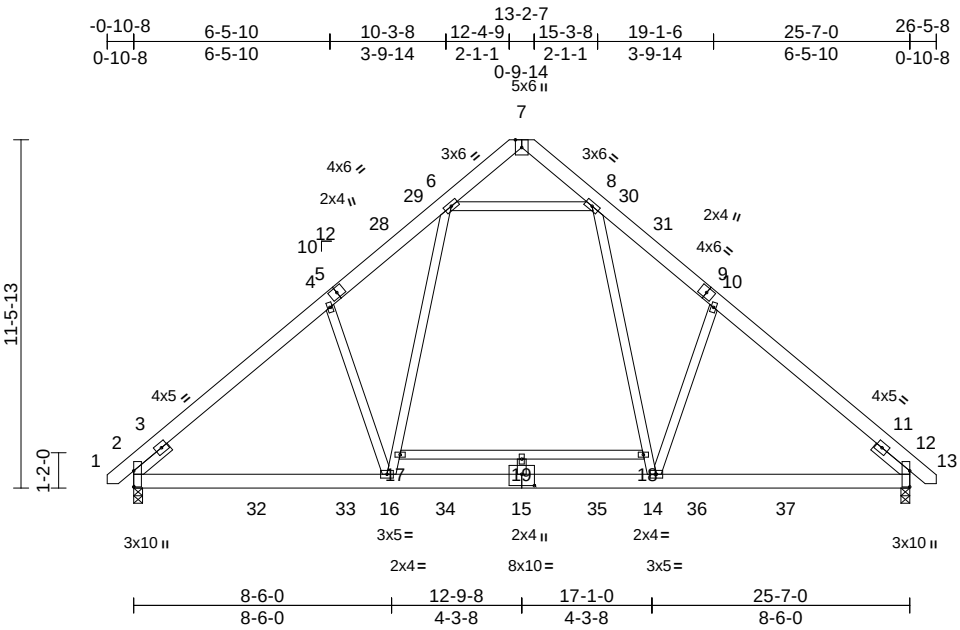

Scale = 1:76

Plate Offsets (X, Y): [7:0-3-1,Edge], [15:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.09	16-22	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.15	15-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.04	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 211 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING

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

REACTIONS (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=260 (LC 13)
Max Grav 2=1298 (LC 25), 12=1298 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/27, 2-4=-1667/0, 4-6=-1585/91, 6-7=-196/86, 7-8=-196/87, 8-10=-1585/91, 10-12=-1667/0, 12-13=0/27
BOT CHORD	2-16=-142/1197, 14-16=0/951, 12-14=-1/1159
WEBS	8-18=-71/708, 14-18=-81/696, 10-14=-302/308, 16-17=-80/696, 6-17=-71/707, 4-16=-302/308, 6-8=-990/97, 17-19=-1/5, 18-19=-1/5, 15-19=0/28

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-5 to 2-3-11, Interior (1) 2-3-11 to 9-9-8, Exterior(2R) 9-9-8 to 15-9-8, Interior (1) 15-9-8 to 23-3-5, Exterior(2E) 23-3-5 to 26-3-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 12-9-8 from left end, supported at two points, 5-0-0 apart.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879704
24060196-B	A04	Common	1	1	Job Reference (optional)

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

Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:03

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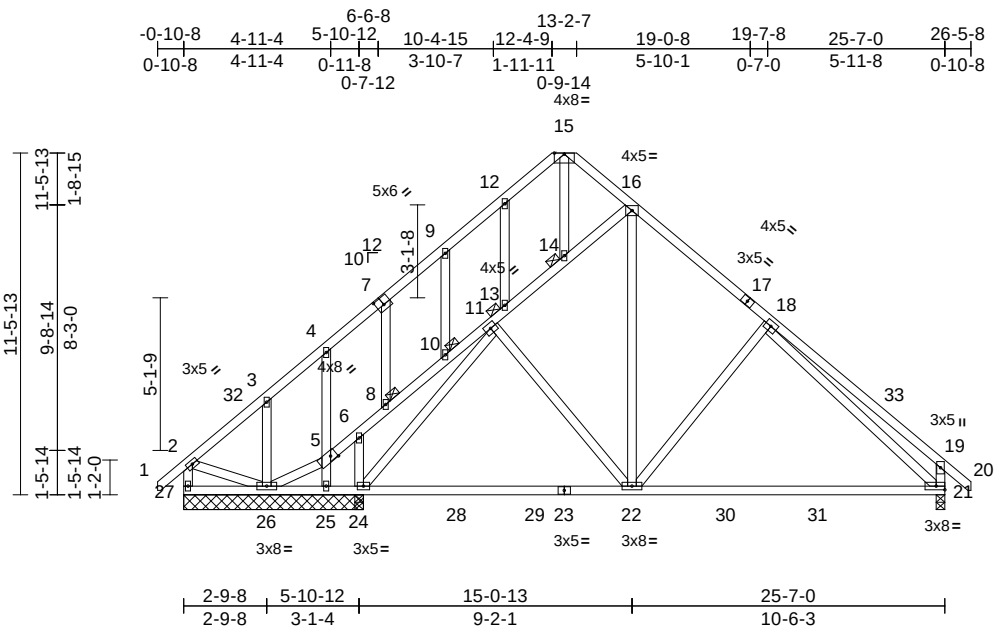
Page: 1



Scale = 1:77.4

Plate Offsets (X, Y): [5:0-2-8,0-2-0], [7:0-3-0,0-3-0]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.33	21-22	>702	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.56	21-22	>417	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.02	21	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 211 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 26-27.
JOINTS	1 Brace at Jt(s): 14, 13, 10, 8

REACTIONS (size) 21=0-3-8, 24=6-0-8, 25=6-0-8, 26=6-0-8, 27=6-0-8

Max Horiz 27=-290 (LC 12)

Max Uplift 21=-43 (LC 15), 24=-140 (LC 14), 25=-218 (LC 23), 26=-222 (LC 14), 27=-24 (LC 12)

Max Grav 21=944 (LC 31), 24=1139 (LC 25), 25=-41 (LC 36), 26=297 (LC 25), 27=351 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-27=-312/97, 19-21=-527/239, 5-6=-85/126, 6-8=-257/232, 8-10=-165/177, 10-11=-105/138, 11-13=-822/269, 13-14=-700/192, 14-16=-712/204, 1-2=0/36, 2-3=-371/162, 3-4=-282/112, 4-9=-206/69, 9-12=-111/27, 12-15=-129/51, 15-16=-139/49, 16-18=-829/134, 18-19=-575/225, 19-20=0/36

BOT CHORD 26-27=-268/282, 25-26=-75/270, 24-25=-74/257, 22-24=0/578, 21-22=0/678

WEBS 14-15=-20/18, 12-13=-191/131, 9-10=-99/66, 7-8=-152/96, 5-25=-75/78, 4-5=-154/102, 3-26=-159/108, 6-24=-294/176, 16-22=-108/648, 11-22=-88/115, 11-24=-738/135, 18-22=-265/221, 18-21=-462/0, 2-26=-173/351, 5-26=-108/126

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-9-14 to 2-2-2, Exterior(2N) 2-2-2 to 9-9-8, Corner(3R) 9-9-8 to 15-9-8, Exterior(2N) 15-9-8 to 23-4-14, Corner(3E) 23-4-14 to 26-4-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 27, 21, 25, 26, and 24. This connection is for uplift only and does not consider lateral forces.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879705
24060196-B	A05	Common	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:04 Page: 1
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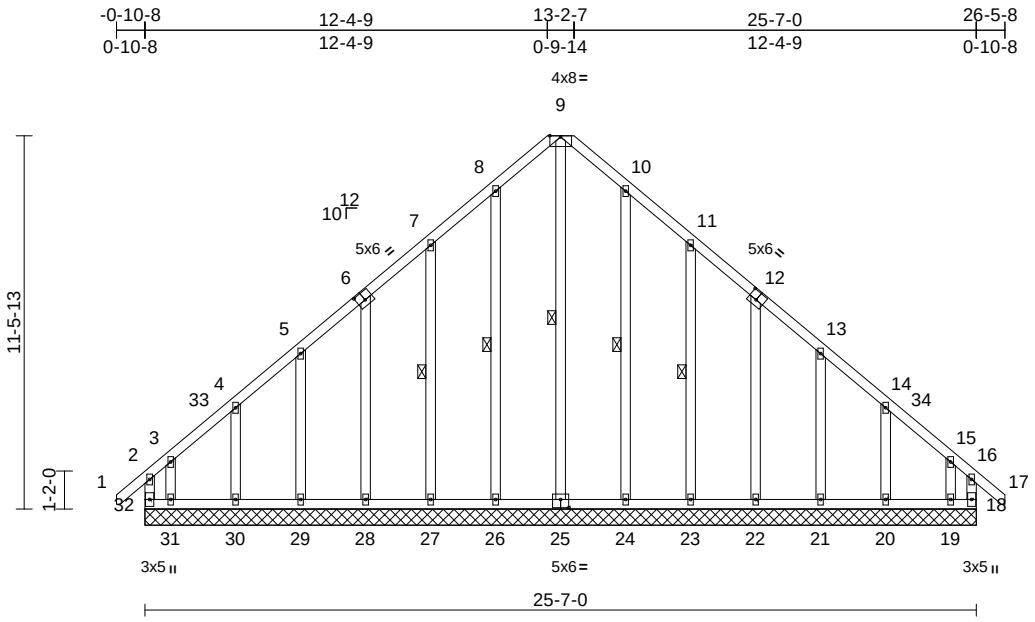


Scale = 1:70.9

Plate Offsets (X, Y): [6:0-3-0,0-3-0], [12:0-3-0,0-3-0], [25:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	18	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 207 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3 *Except* 25-9:2x4 SP No.2

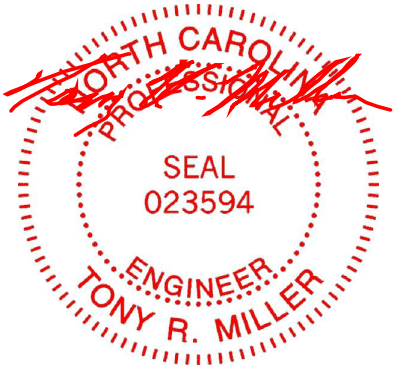
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 9-25, 8-26, 7-27, 10-24, 11-23

REACTIONS (size) 18=25-7-0, 19=25-7-0, 20=25-7-0, 21=25-7-0, 22=25-7-0, 23=25-7-0, 24=25-7-0, 25=25-7-0, 26=25-7-0, 27=25-7-0, 28=25-7-0, 29=25-7-0, 30=25-7-0, 31=25-7-0, 32=25-7-0
Max Horiz 32=-299 (LC 12)
Max Uplift 18=-241 (LC 13), 19=-294 (LC 15), 20=-70 (LC 15), 21=-73 (LC 15), 22=-75 (LC 15), 23=-87 (LC 15), 24=-62 (LC 15), 26=-63 (LC 14), 27=-87 (LC 14), 28=-75 (LC 14), 29=-73 (LC 14), 30=-69 (LC 14), 31=-324 (LC 14), 32=-327 (LC 12)
Max Grav 18=328 (LC 10), 19=285 (LC 13), 20=176 (LC 26), 21=167 (LC 26), 22=173 (LC 26), 23=209 (LC 22), 24=269 (LC 22), 25=339 (LC 15), 26=269 (LC 21), 27=209 (LC 21), 28=173 (LC 25), 29=167 (LC 25), 30=174 (LC 25), 31=344 (LC 12), 32=410 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/37, 2-3=-291/258, 3-4=-177/174, 4-5=-154/154, 5-7=-132/213, 7-8=-148/295, 8-9=-186/358, 9-10=-186/358, 10-11=-148/295, 11-13=-100/213, 13-14=-108/110, 14-15=-134/128, 15-16=-245/195, 16-17=0/37, 2-32=-260/194, 16-18=-206/140
BOT CHORD 31-32=-138/158, 30-31=-138/158, 29-30=-138/158, 28-29=-138/158, 27-28=-139/158, 26-27=-139/158, 24-26=-139/158, 23-24=-139/158, 22-23=-139/158, 21-22=-137/157, 20-21=-137/157, 19-20=-137/157, 18-19=-137/157
WEBS 9-25=-388/137, 8-26=-229/87, 7-27=-169/110, 6-28=-149/100, 5-29=-143/95, 4-30=-157/103, 3-31=-172/195, 10-24=-229/86, 11-23=-169/111, 12-22=-149/99, 13-21=-143/95, 14-20=-158/103, 15-19=-144/181

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-9-14 to 2-2-2, Exterior(2N) 2-2-2 to 9-9-8, Corner(3R) 9-9-8 to 15-9-8, Exterior(2N) 15-9-8 to 23-4-14, Corner(3E) 23-4-14 to 26-4-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



July 16,2024

Continued on page 2

ENGINEERING BY TRENCO A MiTek Affiliate
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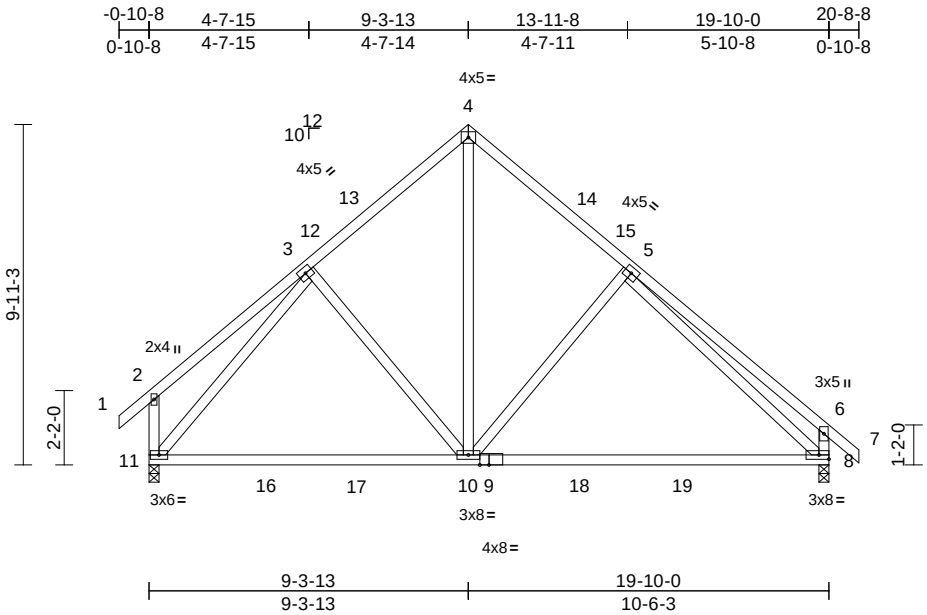
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 327 lb uplift at joint 32, 241 lb uplift at joint 18, 63 lb uplift at joint 26, 87 lb uplift at joint 27, 75 lb uplift at joint 28, 73 lb uplift at joint 29, 69 lb uplift at joint 30, 324 lb uplift at joint 31, 62 lb uplift at joint 24, 87 lb uplift at joint 23, 75 lb uplift at joint 22, 73 lb uplift at joint 21, 70 lb uplift at joint 20 and 294 lb uplift at joint 19.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH I66879706
24060196-B	B01	Common	2	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:04 Page: 1
ID:poo3p3?OWRjN6_ZDvPrzF4zhJ8L-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:67.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.32	8-10	>725	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.55	8-10	>430	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 132 lb	FT = 20%

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

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

REACTIONS (size) 8=0-3-8, 11=0-3-8
Max Horiz 11=-268 (LC 12)
Max Uplift 8=-74 (LC 15), 11=-66 (LC 14)
Max Grav 8=960 (LC 6), 11=958 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-243/107, 3-4=-879/168, 4-5=-884/170, 5-6=-573/185, 6-7=0/39, 2-11=-286/122, 6-8=-530/189
BOT CHORD 10-11=-79/663, 8-10=0/715
WEBS 3-10=-148/204, 4-10=-102/741, 5-10=-278/230, 3-11=-795/53, 5-8=-589/28

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-3-13, Exterior(2R) 6-3-13 to 12-3-13, Interior (1) 12-3-13 to 17-8-8, Exterior(2E) 17-8-8 to 20-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 8. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

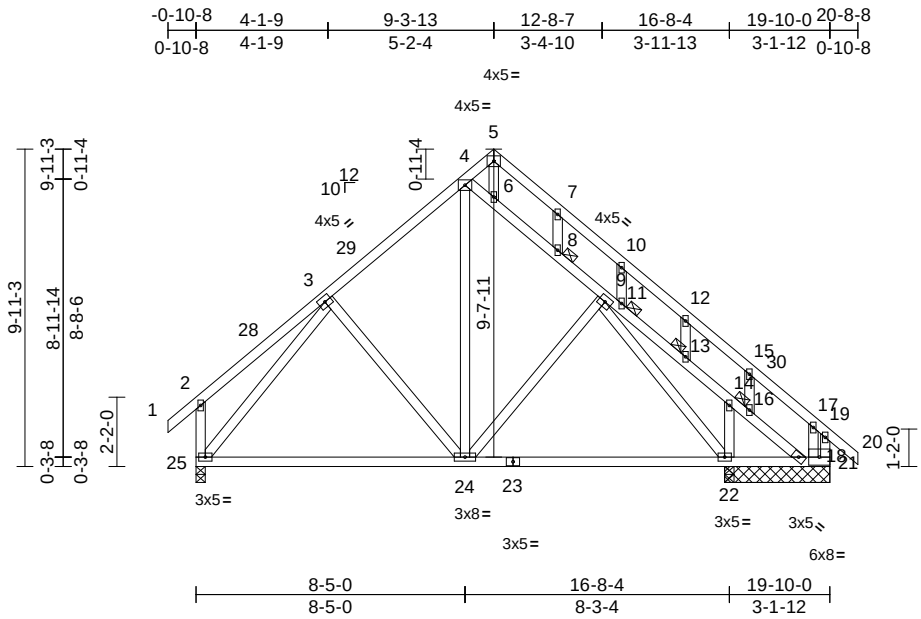
LOAD CASE(S) Standard

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH
24060196-B	B02	Common	1	1	I66879707 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:04 Page: 1
ID:QwOCt908BlmgeeqJB_K8WIzhJ5k-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:72.1

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.10	24-25	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.20	24-25	>982	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.01	21	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 160 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
5-3-9 oc bracing: 18-21.
JOINTS 1 Brace at Jt(s): 8, 11, 13, 16

REACTIONS (size) 18=3-3-8, 21=3-3-8, 22=3-3-8, 25=0-3-8
Max Horiz 25=-260 (LC 12)
Max Uplift 18=-199 (LC 13), 21=-890 (LC 15), 22=-178 (LC 15), 25=-41 (LC 14)
Max Grav 18=963 (LC 15), 21=270 (LC 31), 22=723 (LC 1), 25=760 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-170/116, 3-4=-575/181, 4-5=-150/159, 5-7=-174/145, 7-10=-214/73, 10-12=-140/35, 12-15=-177/30, 15-17=-231/112, 17-19=-58/68, 19-20=0/38, 2-25=-229/168, 19-21=-99/171, 4-6=-459/142, 6-8=-462/91, 8-9=-496/118, 9-11=-46/95, 11-13=-84/63, 13-14=-135/109, 14-16=-69/40, 16-18=-97/87
BOT CHORD 24-25=-100/466, 22-24=0/424, 18-22=-37/235, 18-21=-1138/275
WEBS 5-6=-126/69, 7-8=-163/89, 10-11=-220/107, 12-13=-100/72, 15-16=-205/203, 17-21=-269/34, 14-22=-264/240, 4-24=-94/328, 3-24=-122/181, 9-24=-149/102, 3-25=-623/35, 9-22=-526/129

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-3-13, Corner(3R) 6-3-13 to 12-3-13, Exterior(2N) 12-3-13 to 17-8-8, Corner(3E) 17-8-8 to 20-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 890 lb uplift at joint 21.
13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18, 22, and 25. This connection is for uplift only and does not consider lateral forces.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

July 16,2024

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

Job	Truss	Truss Type	Qty	Ply	196 Farm at Neills Creek-2nd Floor-Callaway 1 BR4 GRH
24060196-B	C01	Common Supported Gable	1	1	I66879708 Job Reference (optional)

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

Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Jul 15 18:22:04 Page: 1
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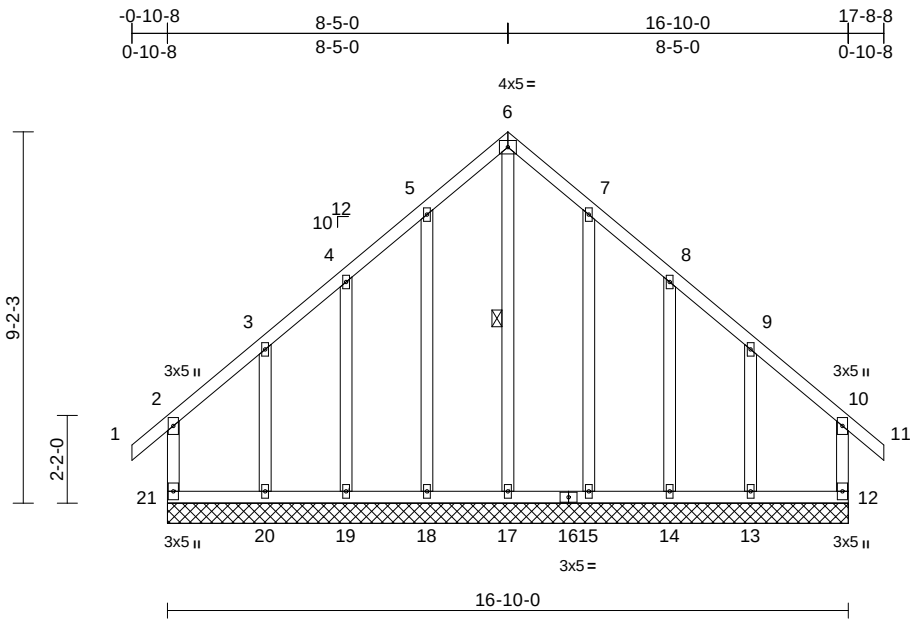


Scale = 1:57

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 127 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-17

REACTIONS (size) 12=16-10-0, 13=16-10-0, 14=16-10-0, 15=16-10-0, 17=16-10-0, 18=16-10-0, 19=16-10-0, 20=16-10-0, 21=16-10-0
Max Horiz 21=-241 (LC 12)
Max Uplift 12=-143 (LC 11), 13=-163 (LC 10), 14=-58 (LC 15), 15=-70 (LC 15), 18=-71 (LC 14), 19=-57 (LC 14), 20=-168 (LC 11), 21=-150 (LC 10)
Max Grav 12=236 (LC 25), 13=291 (LC 26), 14=195 (LC 22), 15=264 (LC 22), 17=283 (LC 15), 18=264 (LC 21), 19=195 (LC 21), 20=295 (LC 30), 21=241 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-21=-180/195, 1-2=0/38, 2-3=-153/157, 3-4=-80/230, 4-5=-113/326, 5-6=-154/402, 6-7=-154/402, 7-8=-114/324, 8-9=-75/236, 9-10=-147/151, 10-11=0/38, 10-12=-176/161
BOT CHORD 20-21=-125/118, 19-20=-125/118, 18-19=-125/118, 17-18=-125/118, 15-17=-125/118, 14-15=-125/118, 13-14=-125/118, 12-13=-125/118
WEBS 6-17=-434/103, 5-18=-225/96, 4-19=-158/126, 3-20=-194/143, 7-15=-225/98, 8-14=-158/114, 9-13=-192/156

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-5-0, Exterior(2N) 2-5-0 to 5-5-0, Corner(3R) 5-5-0 to 11-5-0, Exterior(2N) 11-5-0 to 14-5-0, Corner(3E) 14-5-0 to 17-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 21, 143 lb uplift at joint 12, 71 lb uplift at joint 18, 57 lb uplift at joint 19, 168 lb uplift at joint 20, 70 lb uplift at joint 15, 58 lb uplift at joint 14 and 163 lb uplift at joint 13.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

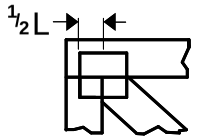
LOAD CASE(S) Standard

July 16,2024

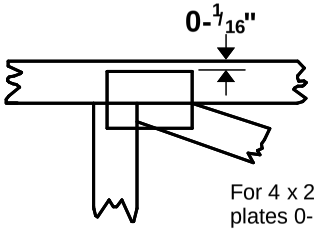
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

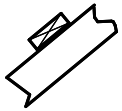
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

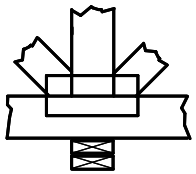
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

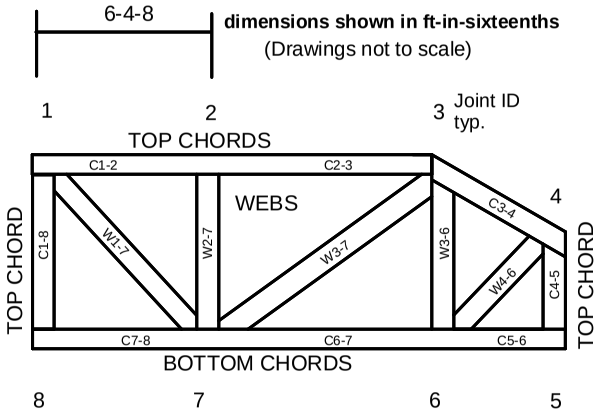


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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