



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

Phone #:919-775-1450

Builder: DR Horton Inc
Model: 10 Mason Ridge -
Wilmington - A



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: _____

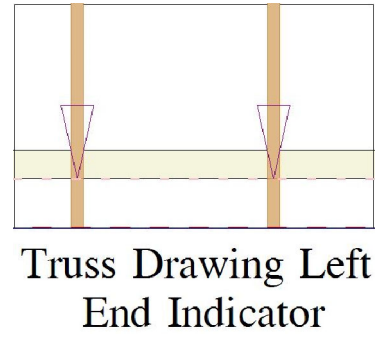
General Notes:

** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

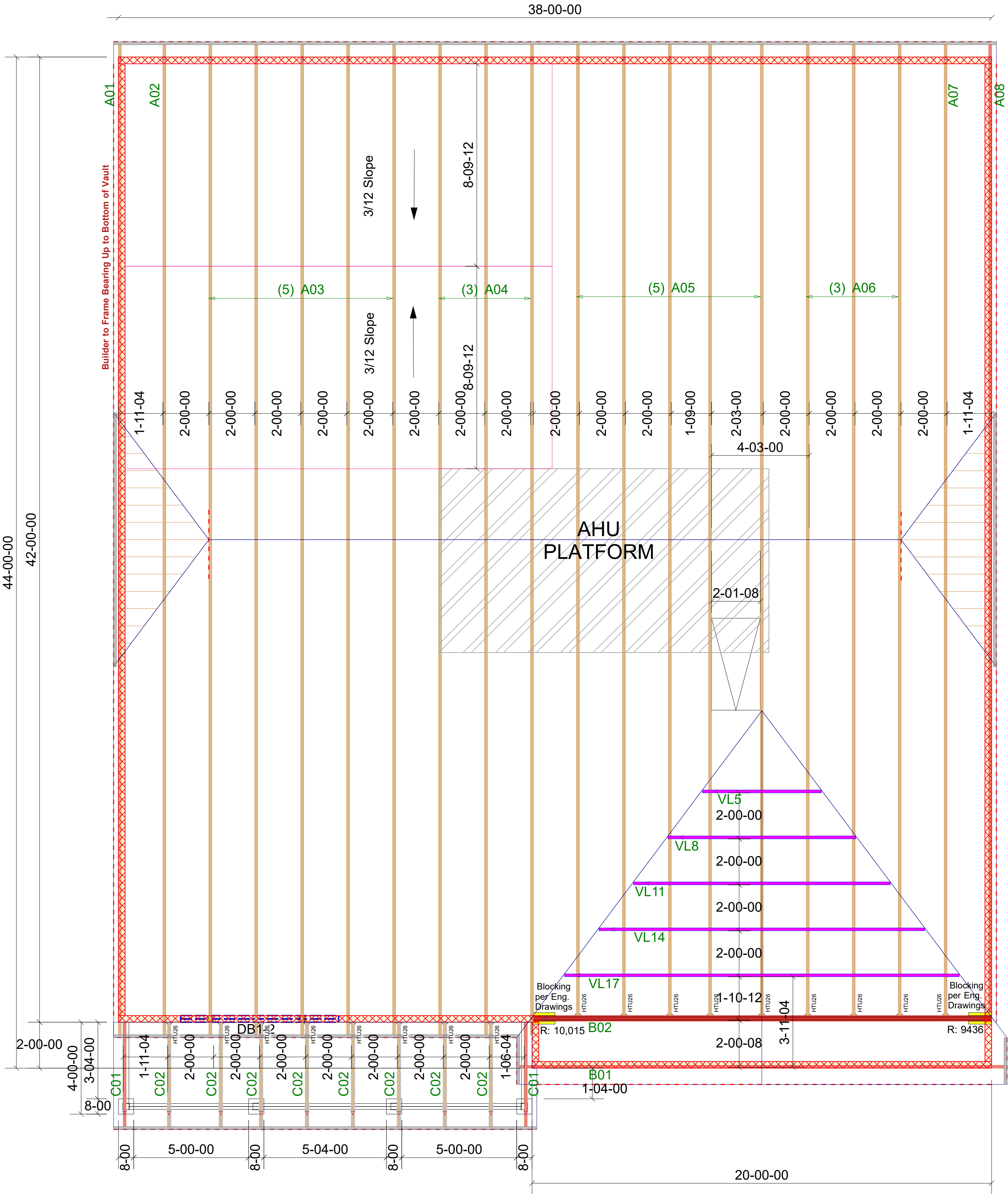
** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT.

** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.



Truss Drawing Left End Indicator



Hatch Legend	
	8' 1-1/8" BRG HGT
	AHU PLATFORM
	9' 1-1/8" BRG HGT

Truss Connector Total List		
Manuf	Product	Qty
Simpson	HTU26	17
Simpson	One H2.5A*	50

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
DB1-2	8-00-00	2.1 RigidLam SP LVL 1-3/4 x 9-1/4	2	2	FF

ROOF PLACEMENT PLAN

** GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

** All uplift connectors shown within these documents are recommendations only. Per ANS/ITPI 1, all uplift connectors are the responsibility of the bldg designer and or contractor.

Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding the bracing, consult "Bracing of Wood Truss" available from the Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53179



DR Horton Inc

10 Mason Ridge - Wilmington - A

Roof Truss Layout

Scale: NTS

Date: 5/14/2025

Designer: Nate Donaldson

Project Number: 25050083-C

Sheet Number:

1/1

** TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS.

** PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.

** REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.

RE: 25050083
10 Mason Ridge - Wilmington A - Roof

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: DR Horton Inc Project Name: 25050083
Lot/Block: 10 Model: Wilmington A
Address: Subdivision: Mason Ridge
City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

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

No.	Seal#	Truss Name	Date
1	I69410569	A01	11/6/2024
2	I69410570	A02	11/6/2024
3	I69410571	A03	11/6/2024
4	I69410572	A04	11/6/2024
5	I69410573	A05	11/6/2024
6	I69410574	A06	11/6/2024
7	I69410575	A07	11/6/2024
8	I69410576	A08	11/6/2024
9	I69410577	B01	11/6/2024
10	I69410578	B02	11/6/2024
11	I69410579	C01	11/6/2024
12	I69410580	C02	11/6/2024
13	I69410581	VL17	11/6/2024
14	I69410582	VL14	11/6/2024
15	I69410583	VL11	11/6/2024
16	I69410584	VL8	11/6/2024
17	I69410585	VL5	11/6/2024

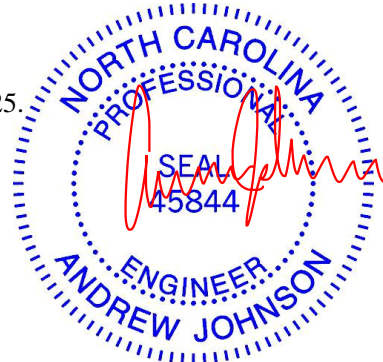
The truss drawing(s) referenced above have been prepared by
Truss Engineering Co. under my direct supervision
based on the parameters provided by Carter Components (Sanford, NC)).

Truss Design Engineer's Name: Johnson, Andrew

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

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



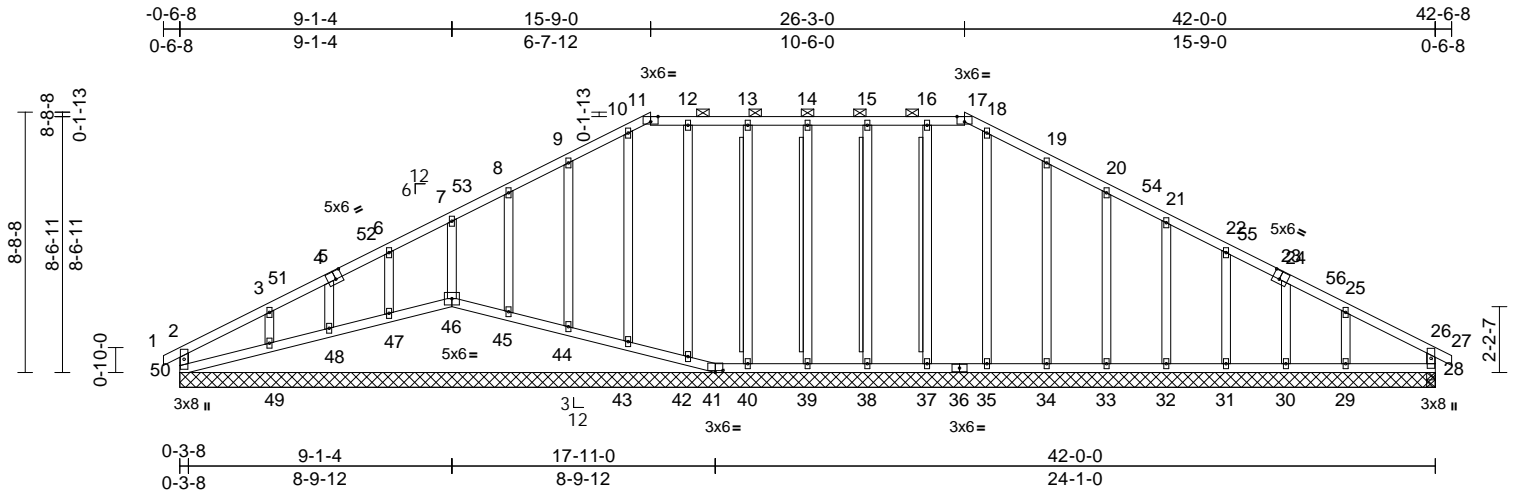
November 06, 2024

Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	A01	Hip	1	1	169410569
Job Reference (optional)					

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

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Page: 1



Scale = 1:77.1

Plate Offsets (X, Y): [5:0-2-12,0-3-4], [11:0-3-0,Edge], [17:0-3-0,Edge], [23:0-2-12,0-3-4], [41:0-3-0,0-0-12]

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	0.10	Vert(LL)	0.00	49-50	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	49-50	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	28	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 280 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* 0-0,0-0,0-0,0-0:2x4 SP No.2(flat)

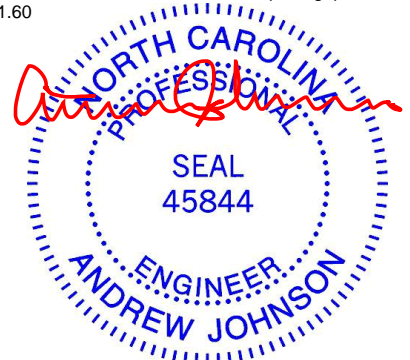
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-17.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SP No.2 - 14-39, 13-40, 15-38, 16-37
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (size)
28=42-0-0, 29=42-0-0, 30=42-0-0, 31=42-0-0, 32=42-0-0, 33=42-0-0, 34=42-0-0, 35=42-0-0, 37=42-0-0, 38=42-0-0, 39=42-0-0, 40=42-0-0, 41=42-0-0, 42=42-0-0, 43=42-0-0, 44=42-0-0, 45=42-0-0, 46=42-0-0, 47=42-0-0, 48=42-0-0, 49=42-0-0, 50=42-0-0
Max Horiz 50=-115 (LC 12)
Max Uplift 28=-11 (LC 14), 29=-97 (LC 15), 30=-25 (LC 15), 31=-48 (LC 15), 32=-43 (LC 15), 33=-43 (LC 15), 34=-54 (LC 15), 37=-8 (LC 11), 38=-37 (LC 15), 39=-23 (LC 11), 40=-39 (LC 14), 41=-17 (LC 15), 42=-13 (LC 11), 44=-54 (LC 14), 45=-39 (LC 14), 46=-43 (LC 14), 47=-49 (LC 14), 48=-20 (LC 14), 49=-108 (LC 14), 50=-52 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD
1-2=0/18, 2-3=-127/67, 3-4=-85/88, 4-6=-73/111, 6-7=-73/135, 7-8=-79/158, 8-9=-96/180, 9-10=-118/220, 10-11=-114/212, 11-12=-111/215, 12-13=-110/214, 13-14=-110/214, 14-15=-110/214, 15-16=-110/214, 16-17=-111/215, 17-18=-114/212, 18-19=-117/219, 19-20=-97/177, 20-21=-79/139, 21-22=-69/109, 22-24=-57/85, 24-25=-67/64, 25-26=-107/40, 26-27=0/18, 2-50=-138/53, 26-28=-138/51
BOT CHORD
49-50=-36/99, 48-49=-33/96, 47-48=-32/98, 46-47=-33/97, 45-46=-32/96, 44-45=-32/97, 43-44=-32/97, 42-43=-32/97, 41-42=-28/97, 40-41=-27/91, 39-40=-27/91, 38-39=-27/91, 37-38=-27/91, 35-37=-27/91, 34-35=-27/91, 33-34=-27/91, 32-33=-27/91, 31-32=-27/91, 30-31=-27/91, 29-30=-27/91, 28-29=-27/91

WEBS
7-46=-184/67, 14-39=-176/48, 13-40=-179/59, 12-42=-169/33, 10-43=-150/0, 9-44=-188/78, 8-45=-172/64, 6-47=-172/75, 4-48=-106/49, 3-49=-160/119, 15-38=-179/61, 16-37=-169/32, 18-35=-150/0, 19-34=-186/78, 20-33=-180/67, 21-32=-183/67, 22-31=-164/71, 24-30=-108/53, 25-29=-160/112

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-6-8 to 3-7-14, Interior (1) 3-7-14 to 9-9-12, Exterior(2R) 9-9-12 to 32-2-5, Interior (1) 32-2-5 to 38-4-2, Exterior(2E) 38-4-2 to 42-6-8 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



November 6, 2024

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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.sbcacompnents.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	A01	Hip	1	1	I69410569
					Job Reference (optional)

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) 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 52 lb uplift at joint 50, 43 lb uplift at joint 46, 17 lb uplift at joint 41, 11 lb uplift at joint 28, 23 lb uplift at joint 39, 39 lb uplift at joint 40, 13 lb uplift at joint 42, 54 lb uplift at joint 44, 39 lb uplift at joint 45, 49 lb uplift at joint 47, 20 lb uplift at joint 48, 108 lb uplift at joint 49, 37 lb uplift at joint 38, 8 lb uplift at joint 37, 54 lb uplift at joint 34, 43 lb uplift at joint 33, 43 lb uplift at joint 32, 48 lb uplift at joint 31, 25 lb uplift at joint 30 and 97 lb uplift at joint 29.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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

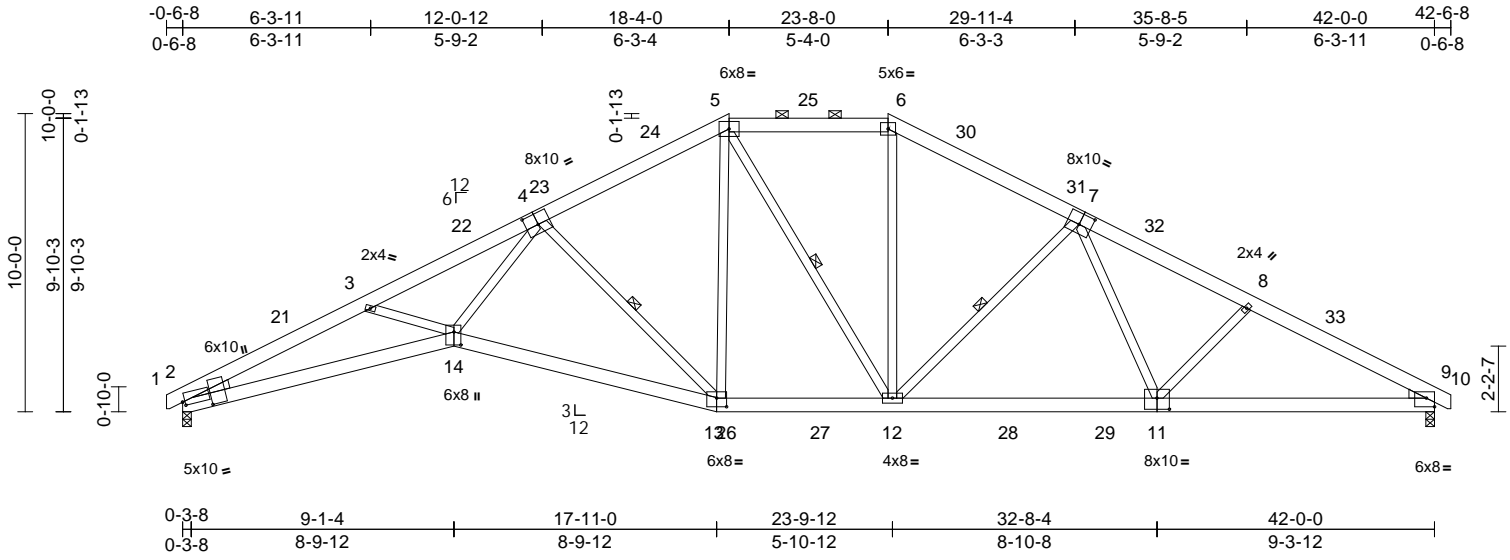
Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	A02	Hip	1	1	169410570
Job Reference (optional)					

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

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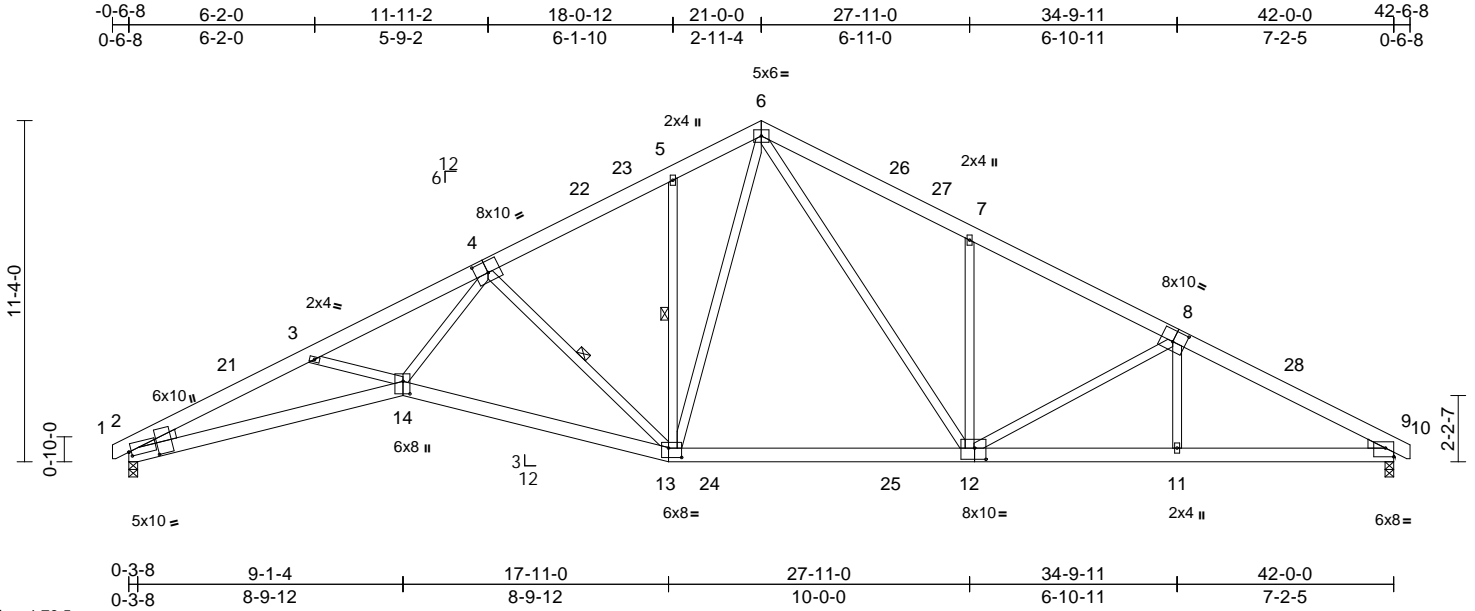
Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	A03	Roof Special	5	1	169410571
Job Reference (optional)					

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

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Scale = 1:76.5

Plate Offsets (X, Y): [2:0-1-0,0-1-13], [2:0-3-13,0-11-10], [4:0-5-0,0-4-8], [8:0-5-0,0-4-8], [9:Edge,0-3-8], [12:0-4-8,0-4-8], [13:0-5-4,0-3-12], [14:0-5-0,0-2-12]												
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	0.72	Vert(LL)	-0.33	12-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.61	13-14	>828	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.25	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 315 lb	FT = 20%

LUMBER	
TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2 *Except* 2-14:2x6 SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 14-4,13-6,12-6:2x4 SP No.2
WEDGE	Left: 2x4 SP No.3 Right: 2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 2-4-13 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-13, 5-13
REACTIONS (size) 2=0-3-8, 9=0-3-8	
	Max Horiz 2=170 (LC 14)
	Max Uplift 2=-170 (LC 14), 9=-170 (LC 15)
	Max Grav 2=1852 (LC 3), 9=1857 (LC 3)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/13, 2-3=-5412/613, 3-5=-5343/520, 5-6=-2348/432, 6-7=-2795/462, 7-9=-3202/337, 9-10=0/13
BOT CHORD	2-14=-654/4867, 13-14=-354/3426, 11-13=-194/2785, 9-11=-194/2786
WEBS	3-14=-91/175, 4-14=-228/2627, 4-13=-1754/338, 5-13=-401/158, 6-13=-217/1188, 6-12=-263/1258, 7-12=-554/248, 8-12=-457/180, 8-11=0/183

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) -0-5-14 to 3-8-7, Interior (1) 3-8-7 to 16-9-11, Exterior(2R) 16-9-11 to 25-2-5, Interior (1) 25-2-5 to 38-3-9, Exterior(2E) 38-3-9 to 42-5-14 zone; 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 6, 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	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	A04	Roof Special	3	1	Job Reference (optional)

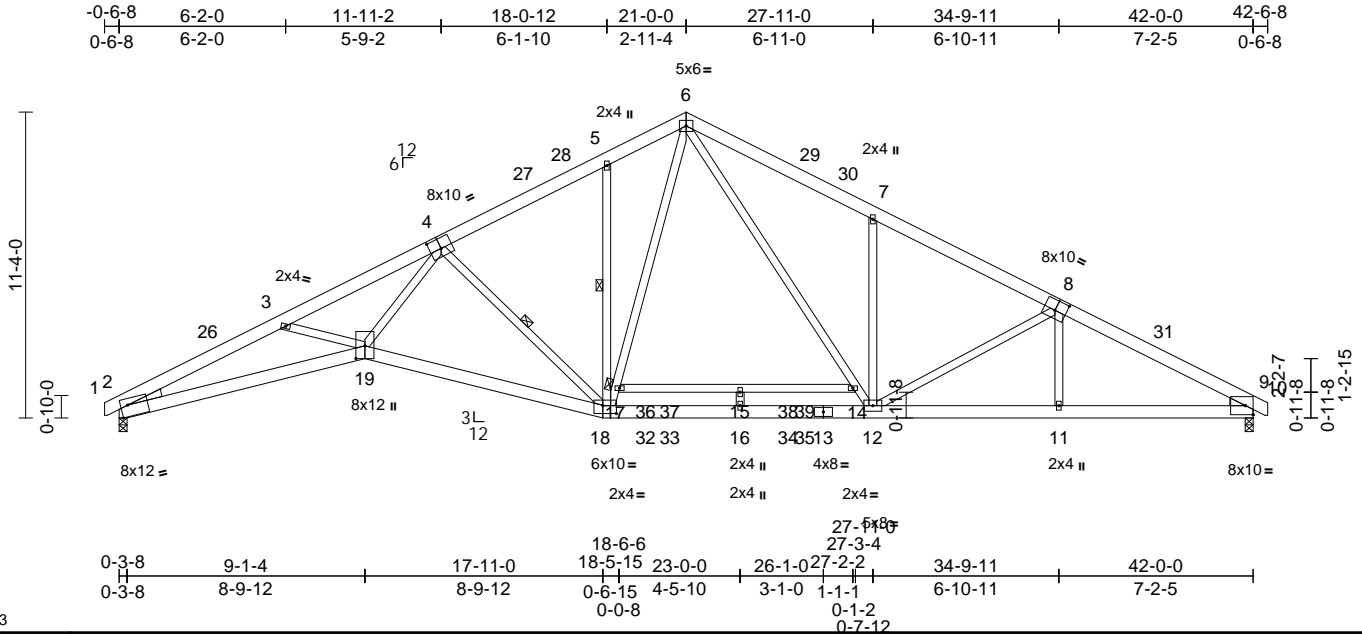
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Scale = 1:85.3

Plate Offsets (X, Y): [2:0-3-3,Edge], [4:0-5-0,0-4-8], [8:0-5-0,0-4-8], [18:0-6-0,0-3-8], [19:0-5-11,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.38	16-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.76	16-18	>660	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.28	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 328 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP 2400F 2.0E *Except* 19-18:2x6 SP No.2, 17-14:2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 18-6,19-4,12-6:2x4 SP No.2
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-1-8 oc purlins.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 5-18, 4-18

REACTIONS

(size) 2=0-3-8, 9=0-3-8
 Max Horiz 2=-170 (LC 15)
 Max Uplift 2=-30 (LC 14), 9=-3 (LC 15)
 Max Grav 2=2118 (LC 3), 9=2173 (LC 3)

FORCES

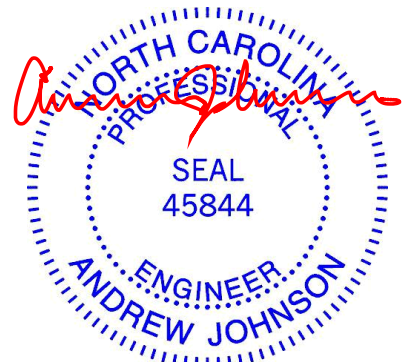
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/13, 2-3=-6313/139, 3-5=-6307/44, 5-6=-2908/125, 6-7=-3512/78, 7-9=-3804/3, 9-10=0/13
 BOT CHORD 2-19=-230/5671, 18-19=0/4113, 16-18=0/2147, 12-16=0/2147, 11-12=0/3323, 9-11=0/3323, 15-17=-27/131, 14-15=-27/131
 WEBS 5-18=-353/163, 17-18=-116/1352, 6-17=-73/1423, 3-19=-32/243, 4-18=-1970/232, 7-12=-545/251, 4-19=-42/2982, 8-11=-32/74, 8-12=-376/248, 6-14=-65/1609, 12-14=-93/1577, 15-16=-227/0

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) -0-5-14 to 3-8-7, Interior (1) 3-8-7 to 16-9-11, Exterior(2R) 16-9-11 to 25-2-5, Interior (1) 25-2-5 to 38-3-9, Exterior(2E) 38-3-9 to 42-5-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 22-11-0 from left end, supported at two points, 5-0-0 apart.
- All plates are 2x4 MT20 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.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 2. This connection is for uplift only and does not consider lateral forces.
- 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

November 6, 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

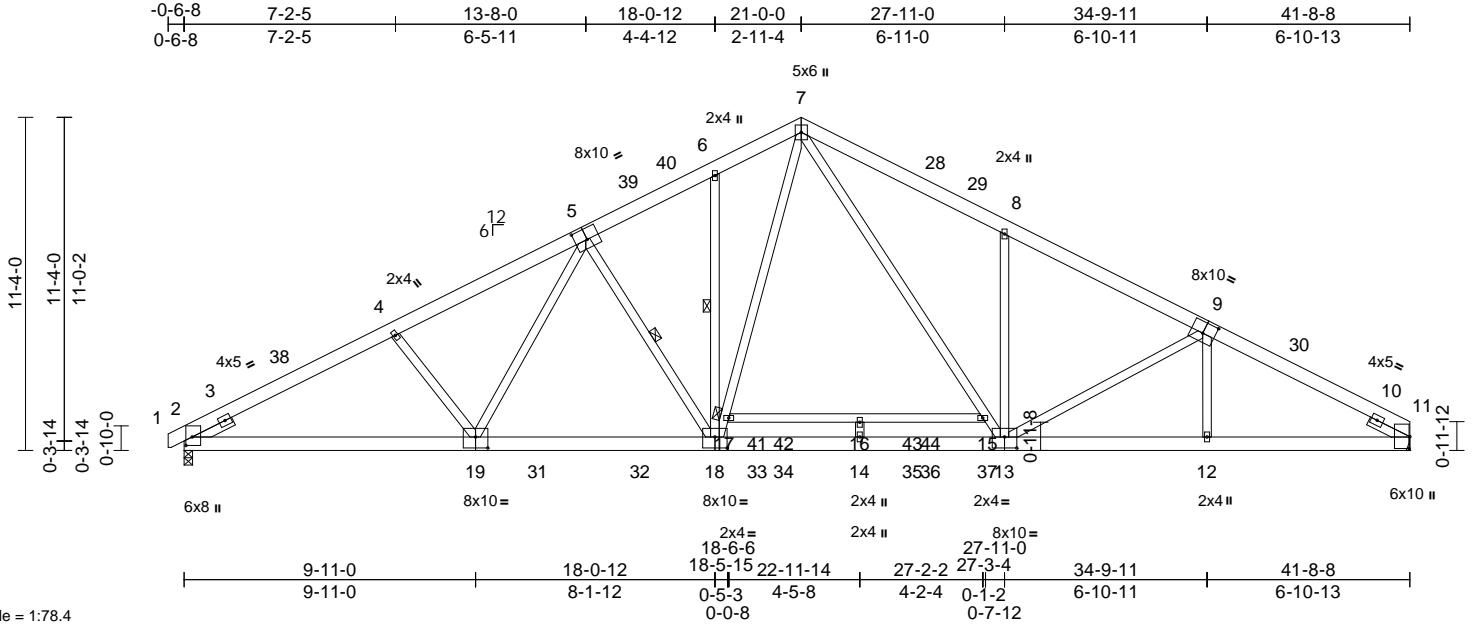
Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	A05	Common	5	1	169410573
Job Reference (optional)					

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

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Tue Nov 05 16:42:12

Page: 1

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Scale = 1:78.4

Plate Offsets (X, Y): [2:0-3-8,0-2-9], [5:0-5-0,0-4-8], [9:0-5-0,0-4-8], [11:0-4-14,0-0-5], [13:0-5-0,0-4-8], [18:0-5-0,0-4-8], [19:0-5-0,0-4-8]

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	0.59	Vert(LL)	-0.25	16-17	>999	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.51	16-17	>975	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.10	11	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 331 lb FT = 20%											

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP 2400F 2.0E *Except* 2-19:2x6 SP No.2, 17-15:2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 13-7,18-7:2x4 SP No.2
 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 3-0-1 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 2-2-0 oc bracing: 2-19.
 WEBS 1 Row at midpt 6-18, 5-18

REACTIONS

(size) 2=0-3-8, 11= Mechanical
 Max Horiz 2=177 (LC 14)
 Max Uplift 2=-33 (LC 14)
 Max Grav 2=2141 (LC 3), 11=2148 (LC 3)

FORCES

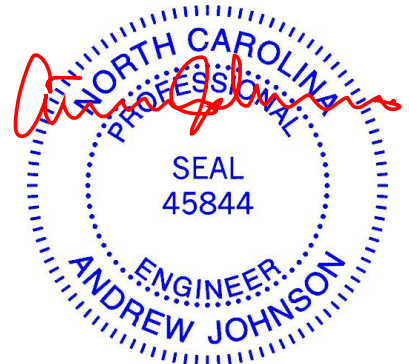
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 7-8=-3464/83, 8-11=-3654/5, 1-2=0/17, 2-4=-3661/64, 4-6=-3488/73, 6-7=-2917/100
 BOT CHORD 2-14=-113/3184, 12-14=0/3179, 11-12=-19/3179, 16-17=-16/45, 15-16=-16/45
 WEBS 8-13=-561/250, 4-19=-269/209, 5-19=-112/408, 6-18=-242/109, 7-15=-85/1512, 13-15=-115/1454, 17-18=-66/1384, 7-17=-29/1474, 5-18=-589/244, 9-12=-87/16, 9-13=-285/241, 14-16=-246/0

NOTES

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

- 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) -0-5-14 to 3-8-2, Interior (1) 3-8-2 to 16-10-1, Exterior(2R) 16-10-1 to 25-1-15, Interior (1) 25-1-15 to 37-6-9, Exterior(2E) 37-6-9 to 41-8-8 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 22-11-0 from left end, supported at two points, 5-0-0 apart.
- All plates are 2x4 MT20 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.
- Refer to girder(s) for truss to truss connections.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 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



November 6, 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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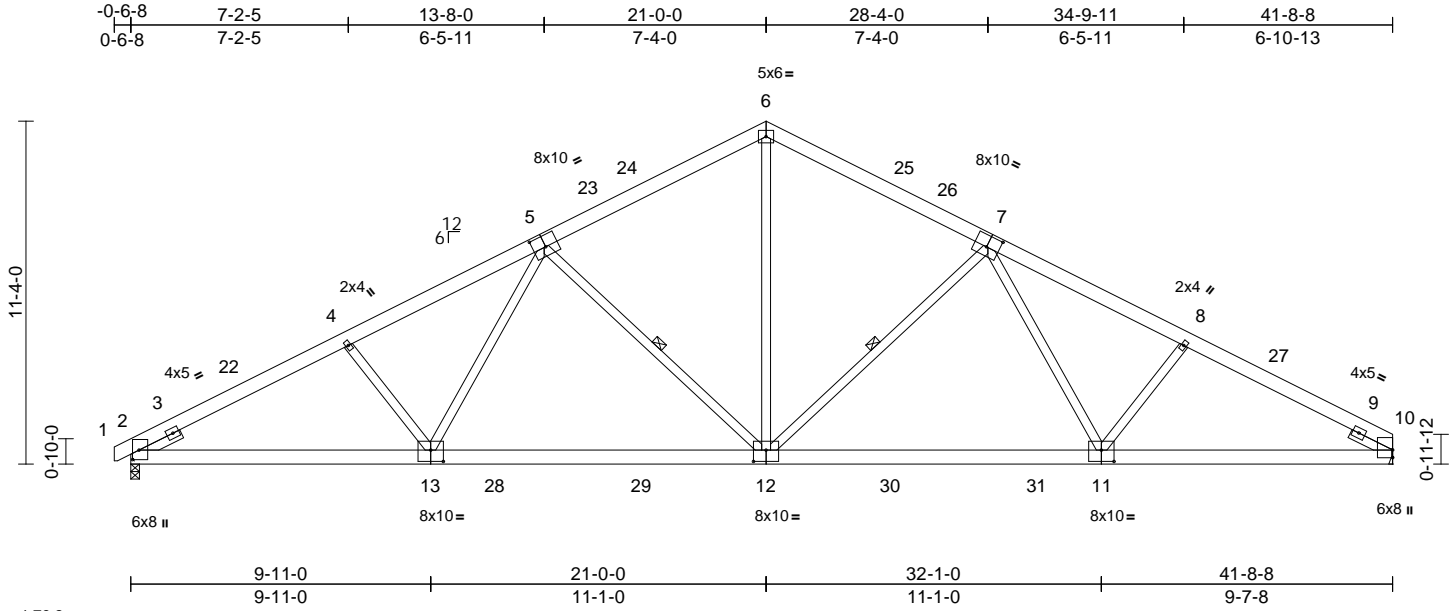
Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	A06	Common	3	1	169410574
Job Reference (optional)					

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

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Tue Nov 05 16:42:12

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Scale = 1:76.2

Plate Offsets (X, Y): [2:0-3-12,0-2-9], [5:0-5-0,0-4-8], [7:0-5-0,0-4-8], [11:0-5-0,0-4-8], [12:0-5-0,0-4-8], [13:0-5-0,0-4-8]

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	0.62	Vert(LL)	-0.25	11-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.44	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.11	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 294 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3 *Except* 12-6:2x4 SP No.2
 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 3-1-13 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 7-12, 5-12

REACTIONS

(size) 2=0-3-8, 10= Mechanical
 Max Horiz 2=177 (LC 14)
 Max Uplift 2=172 (LC 14), 10=158 (LC 15)
 Max Grav 2=1871 (LC 3), 10=1839 (LC 3)

FORCES

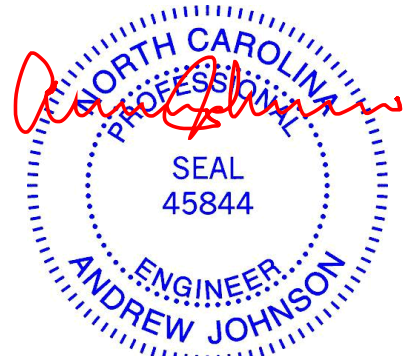
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/17, 2-4=-3159/326, 4-6=-2986/344, 6-8=-2946/344, 8-10=-3114/326
 BOT CHORD 2-10=-343/2738
 WEBS 6-12=-104/1509, 7-12=-788/264, 7-11=-26/547, 8-11=-240/183, 5-12=-803/265, 5-13=-30/586, 4-13=-261/186

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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) -0-5-14 to 3-8-2, Interior (1) 3-8-2 to 16-10-1, Exterior(2R) 16-10-1 to 25-1-15, Interior (1) 25-1-15 to 37-6-9, Exterior(2E) 37-6-9 to 41-8-8 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

- 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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 158 lb uplift at joint 10.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 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



November 6, 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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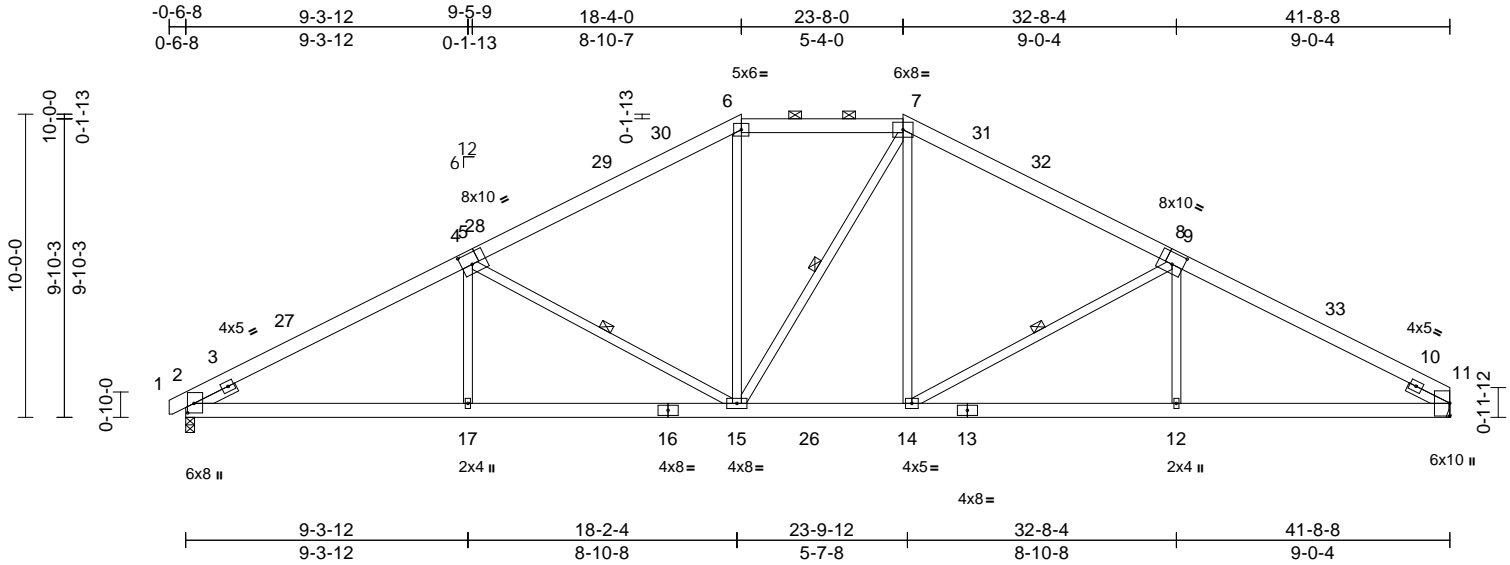
Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	A07	Hip	1	1	169410575
Job Reference (optional)					

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

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Tue Nov 05 16:42:12

Page: 1

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Scale = 1:76
Plate Offsets (X, Y): [2:0-3-12,0-2-9], [5:0-4-4,0-4-8], [9:0-4-8,0-4-8], [11:0-5-2,0-0-1]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.21	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.37	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.13	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 297 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 15-7:2x4 SP No.2
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 2-2-0 oc purlins, except 2-0-0 oc purlins (4-9-5 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 11-12.
WEBS 1 Row at midpt 7-15, 4-15, 9-14

REACTIONS (size) 2=0-3-8, 11= Mechanical
Max Horiz 2=154 (LC 14)
Max Uplift 2=-155 (LC 14), 11=-141 (LC 15)
Max Grav 2=1944 (LC 45), 11=1921 (LC 45)

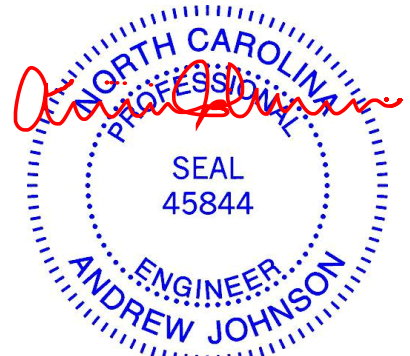
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 6-7=-2158/417, 1-2=0/17, 2-4=-3306/388, 4-6=-2561/403, 7-9=-2566/403, 9-11=-3280/387
BOT CHORD 2-17=-262/2875, 15-17=-262/2875, 14-15=-124/2160, 12-14=-249/2846, 11-12=-249/2846
WEBS 6-15=-18/701, 7-15=-253/260, 7-14=-36/696, 4-17=0/332, 4-15=-837/253, 9-12=0/317, 9-14=-813/249

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

- 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) -0-5-14 to 3-8-2, Interior (1) 3-8-2 to 14-2-1, Exterior(2R) 14-2-1 to 27-9-15, Interior (1) 27-9-15 to 37-6-9, Exterior(2E) 37-6-9 to 41-8-8 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
- 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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 141 lb uplift at joint 11.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

13) 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



November 6, 2024

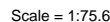
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Continued on page 2

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

WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEL REFERENCE PAGE MIT-TR-17-0169, 1/12/2023 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	A08	Hip Supported Gable	1	1	I69410576
					Job Reference (optional)

- 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) -0-6-8 to 3-7-6, Exterior(2N) 3-7-6 to 11-7-1, Corner(3R) 11-7-1 to 19-10-14, Exterior(2N) 19-10-14 to 22-1-2, Corner(3R) 22-1-2 to 30-4-15, Exterior(2N) 30-4-15 to 37-0-0, Corner(3E) 37-0-0 to 41-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) TCELL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 11) Gable studs spaced at 2-0-0 oc.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 52, 24 lb uplift at joint 40, 32 lb uplift at joint 41, 12 lb uplift at joint 42, 53 lb uplift at joint 45, 42 lb uplift at joint 46, 44 lb uplift at joint 47, 43 lb uplift at joint 48, 46 lb uplift at joint 49, 36 lb uplift at joint 50, 149 lb uplift at joint 51, 32 lb uplift at joint 39, 11 lb uplift at joint 38, 55 lb uplift at joint 36, 42 lb uplift at joint 35, 43 lb uplift at joint 33, 48 lb uplift at joint 32, 26 lb uplift at joint 31 and 102 lb uplift at joint 30.
- 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

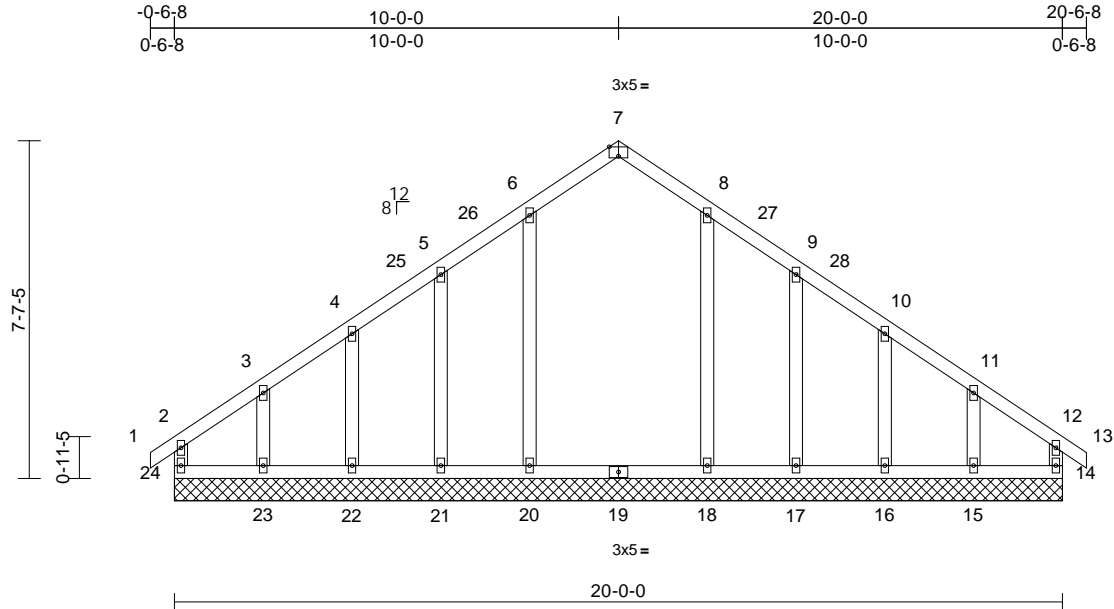
Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	B01	Common Supported Gable	1	1	Job Reference (optional)

I69410577

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

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Page: 1



Scale = 1:51.9

Plate Offsets (X, Y): [7:0-2-8,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	0.18	Vert(LL)	n/a	-	n/a	999	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	0.17	Horz(CT)	0.01	14	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 114 lb FT = 20%											

LUMBER

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

BRACING

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

REACTIONS	(size)	14=20-0-0, 15=20-0-0, 16=20-0-0, 17=20-0-0, 18=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0
Max Horiz		24=165 (LC 12)
Max Uplift		14=14 (LC 11), 15=157 (LC 15), 16=29 (LC 15), 17=93 (LC 15), 21=91 (LC 14), 22=28 (LC 14), 23=160 (LC 14), 24=23 (LC 10)
Max Grav		14=216 (LC 28), 15=208 (LC 26), 16=207 (LC 26), 17=195 (LC 22), 18=360 (LC 6), 20=360 (LC 5), 21=195 (LC 21), 22=207 (LC 25), 23=211 (LC 25), 24=220 (LC 27)

FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension	1-2=0/23, 2-3=-195/92, 3-4=-132/58, 4-5=-127/44, 5-6=-125/74, 6-7=-150/83, 7-8=-150/83, 8-9=-125/66, 9-10=-120/36, 10-11=-127/49, 11-12=-187/81, 12-13=0/23, 2-24=-163/23, 12-14=-159/16
BOT CHORD		23-24=-62/166, 22-23=-62/166, 21-22=-62/166, 20-21=-62/166, 18-20=-62/166, 17-18=-62/166, 16-17=-62/166, 15-16=-62/166, 14-15=-62/166

WEBS

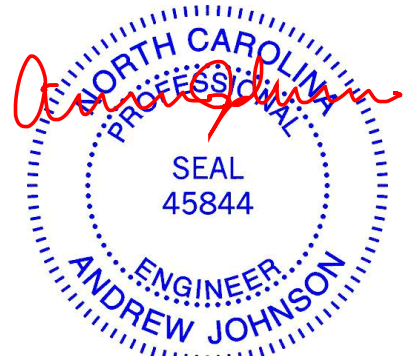
6-20=-248/41, 5-21=-168/104, 4-22=-143/66, 3-23=-145/138, 8-18=-248/36, 9-17=-168/107, 10-16=-143/65, 11-15=-145/136
--

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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) -0-6-8 to 2-5-8, Interior (1) 2-5-8 to 7-0-0, Exterior(2R) 7-0-0 to 13-0-0, Interior (1) 13-0-0 to 17-6-8, Exterior(2E) 17-6-8 to 20-6-8 zone;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.
- 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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 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 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 24, 14 lb uplift at joint 14, 91 lb uplift at joint 21, 28 lb uplift at joint 22, 160 lb uplift at joint 23, 93 lb uplift at joint 17, 29 lb uplift at joint 16 and 157 lb uplift at joint 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 6, 2024

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Edenton, NC 27932

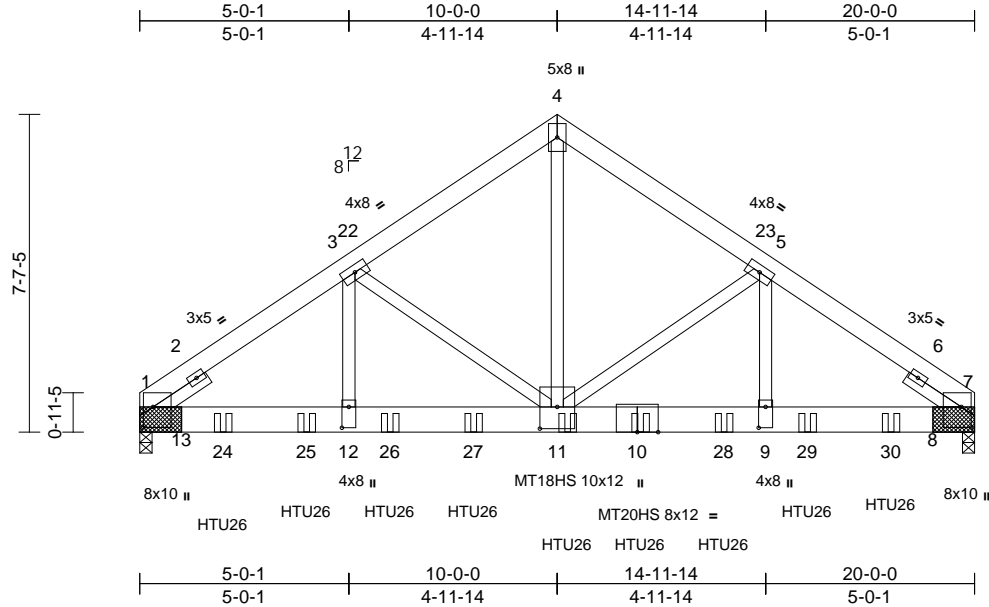
Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	B02	Common Girder	1	2	169410578
Job Reference (optional)					

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

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Scale = 1:55.2

Plate Offsets (X, Y): [1:0-5-15,0-2-13], [7:0-5-15,0-2-13], [9:0-6-0,0-2-0], [11:0-6-4,0-5-0], [12:0-6-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.13	11-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.25	11-12	>935	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.86	Horz(CT)	0.06	7	n/a	n/a	MT18HS	244/190
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 344 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x8 SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 11-4:2x4 SP No.1
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 3-6-1 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	1=(0-3-8 + bearing block), (req. 0-4-2), 7=(0-3-8 + bearing block), (req. 0-3-15)
	Max Horiz	1=154 (LC 10)
	Max Grav	1=10015 (LC 5), 7=9436 (LC 6)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-3=-12954/0, 3-4=-9427/0, 4-5=-9430/0, 5-7=-12280/0
BOT CHORD	1-12=0/10599, 11-12=0/10599, 9-11=0/10043, 7-9=0/10043
WEBS	4-11=0/9866, 5-11=-2746/769, 5-9=-604/3281, 3-11=-3439/0, 3-12=0/4093

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-5-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 4-11 2x4 - 1 row at 0-7-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 2x8 SP 2400F 2.0E bearing block 12" long at jt. 1 attached to each face with 4 rows of 10d (0.131"x3") nails spaced 3" o.c. 16 Total fasteners per block. Bearing is assumed to be SP 2400F 2.0E.
- 2x8 SP 2400F 2.0E bearing block 12" long at jt. 7 attached to each face with 4 rows of 10d (0.131"x3") nails spaced 3" o.c. 16 Total fasteners per block. Bearing is assumed to be SP 2400F 2.0E.
- Unbalanced roof live loads have been considered for this design.
- 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; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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
- Unbalanced snow loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 11 = 12%
- 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.
- 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.

- Use Simpson Strong-Tie HTU26 (20-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 7-9-0 oc max. starting at 1-11-15 from the left end to 17-11-15 to connect truss(es) to back face of bottom chord.
 - Use Simpson Strong-Tie HTU26 (10-16d Girder, 14-10dx1 1/2 Truss) or equivalent spaced at 2-0-0 oc max. starting at 11-11-15 from the left end to 15-11-15 to connect truss(es) to back face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.
- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 4-7=-60, 14-18=-20
Concentrated Loads (lb)
Vert: 10=-1642 (B), 11=-1850 (B), 24=-1850 (B), 25=-1850 (B), 26=-1850 (B), 27=-1850 (B), 28=-1642 (B), 29=-1642 (B), 30=-1814 (B)



November 6, 2024

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	C01	Monopitch Supported Gable	2	1	Job Reference (optional)

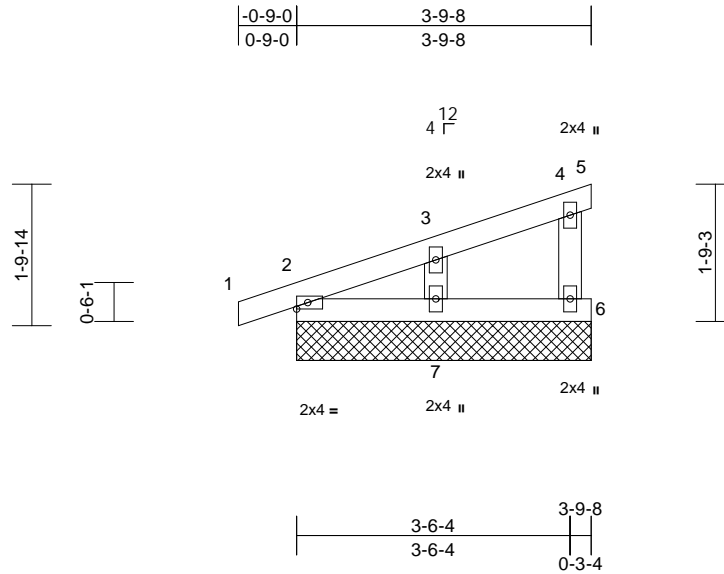
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Scale = 1:29.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP							
BCDL	10.0										
										Weight: 15 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 3-9-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)	2=3-9-8, 5=3-9-8, 6=3-9-8, 7=3-9-8, 8=3-9-8
Max Horiz	2=59 (LC 10), 8=59 (LC 10)
Max Uplift	2=-24 (LC 10), 5=-28 (LC 21), 6=-30 (LC 10), 7=-38 (LC 14), 8=-24 (LC 10)
Max Grav	2=158 (LC 21), 5=9 (LC 10), 6=133 (LC 21), 7=207 (LC 21), 8=158 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

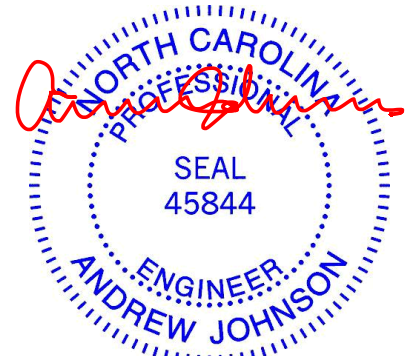
TOP CHORD	1-2=0/21, 2-3=-98/41, 3-4=-38/22, 4-5=-17/9, 4-6=-120/123
BOT CHORD	2-7=-46/25, 6-7=0/0
WEBS	3-7=-162/173

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-9-0 to 2-3-0, Exterior(2N) 2-3-0 to 3-9-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 2, 28 lb uplift at joint 5, 30 lb uplift at joint 6, 38 lb uplift at joint 7 and 24 lb uplift at joint 2.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 6, 2024

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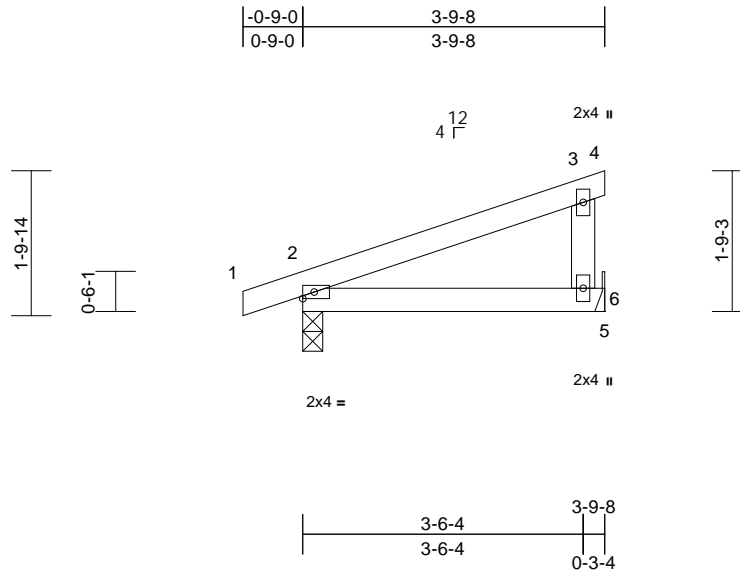
Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof
25050083	C02	Monopitch	8	1	169410580
					Job Reference (optional)

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

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Scale = 1:28.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.03	6-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	0.02	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 15 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 3-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-0, 6= Mechanical
Max Horiz 2=58 (LC 10)
Max Uplift 2=-72 (LC 10), 6=-63 (LC 10)
Max Grav 2=262 (LC 21), 6=213 (LC 21)

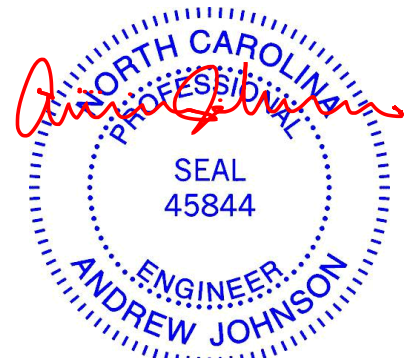
FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-54/54, 3-4=-8/0, 3-6=-157/134
BOT CHORD 2-6=-83/56, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 6.
 - 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



November 6, 2024

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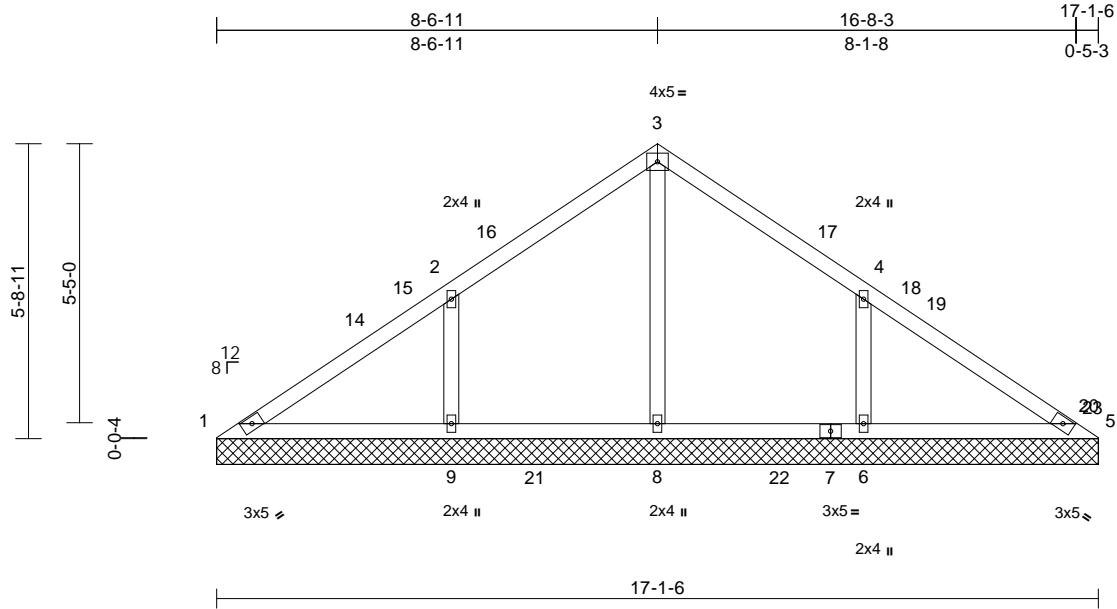
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof	169410581
25050083	VL17	Valley	1	1	Job Reference (optional)	

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

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Scale = 1:44.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	5	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 70 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=17-1-6, 5=17-1-6, 6=17-1-6, 8=17-1-6, 9=17-1-6
Max Horiz	1=130 (LC 11)
Max Uplift	1=-4 (LC 10), 6=-142 (LC 15), 9=-145 (LC 14)
Max Grav	1=104 (LC 24), 5=78 (LC 34), 6=524 (LC 21), 8=495 (LC 23), 9=526 (LC 20)

FORCES

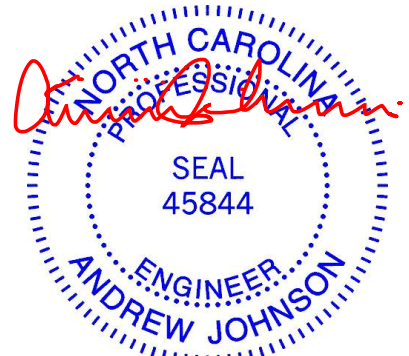
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-132/252, 2-3=-54/197, 3-4=-55/182, 4-5=-104/214
BOT CHORD	1-9=-132/132, 8-9=-132/94, 6-8=-132/94, 5-6=-132/94
WEBS	3-8=-324/9, 2-9=-411/181, 4-6=-410/180

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 5-7-1, Exterior(2R) 5-7-1 to 11-7-1, Interior (1) 11-7-1 to 13-8-5, Exterior(2E) 13-8-5 to 16-8-5 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

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; 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
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 1, 145 lb uplift at joint 9 and 142 lb uplift at joint 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.

LOAD CASE(S) Standard



November 6, 2024

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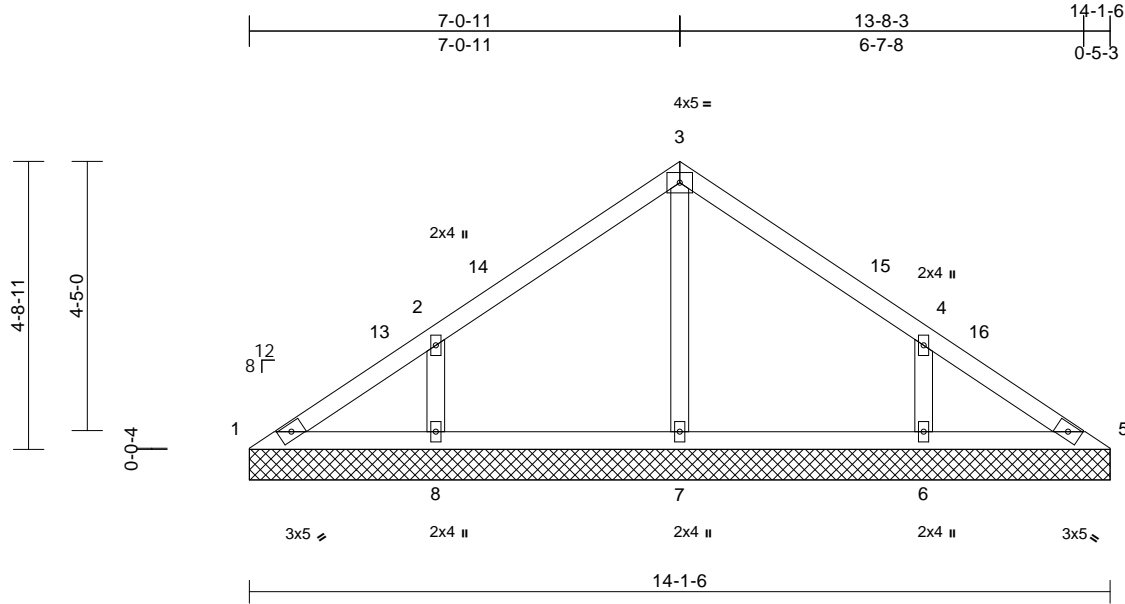
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof	
25050083	VL14	Valley	1	1	Job Reference (optional)	I69410582

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

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 55 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=14-1-6, 5=14-1-6, 6=14-1-6, 7=14-1-6, 8=14-1-6
Max Horiz	1=107 (LC 11)
Max Uplift	1=-12 (LC 15), 6=-118 (LC 15), 8=-119 (LC 14)
Max Grav	1=97 (LC 24), 5=86 (LC 1), 6=460 (LC 21), 7=310 (LC 20), 8=460 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-131/112, 2-3=-141/100, 3-4=-141/92, 4-5=-104/80
BOT CHORD	1-8=-44/112, 7-8=-44/67, 6-7=-44/67, 5-6=-44/82
WEBS	3-7=-229/9, 2-8=-385/159, 4-6=-385/158

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-1-1, Interior (1) 3-1-1 to 4-1-1, Exterior(2R) 4-1-1 to 10-1-1, Interior (1) 10-1-1 to 11-1-1, Exterior(2E) 11-1-1 to 14-1-12 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.
- 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
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 119 lb uplift at joint 8 and 118 lb uplift at joint 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.

LOAD CASE(S) Standard



November 6, 2024

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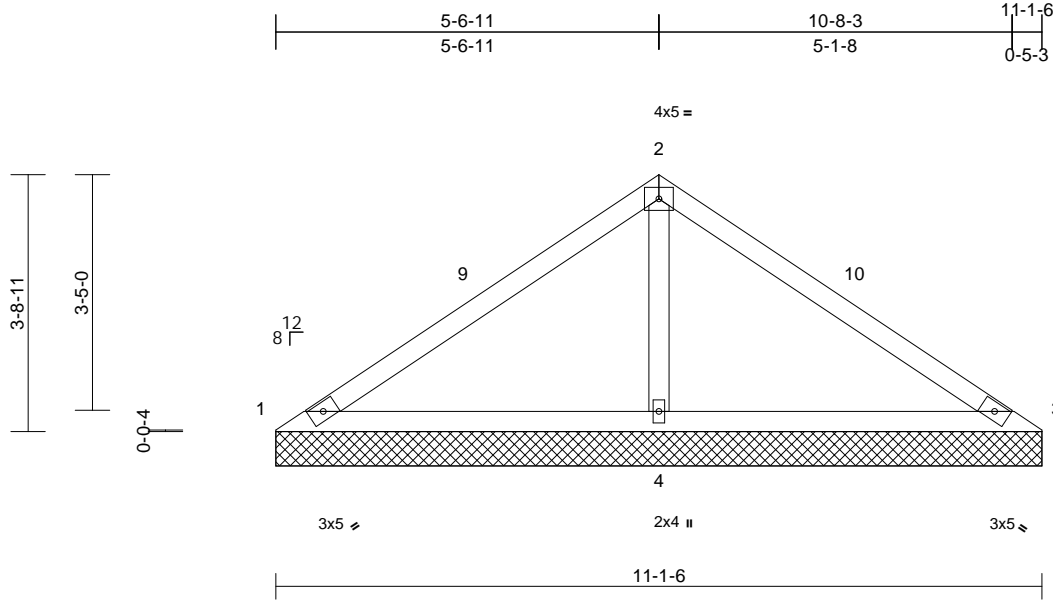
Job	Truss	Truss Type	Qty	Ply	10 Mason Ridge - Wilmington A - Roof	I69410583
25050083	VL11	Valley	1	1	Job Reference (optional)	

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

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Scale = 1:33.4

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	0.59	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.52	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.01	4	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 39 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=11-1-6, 3=11-1-6, 4=11-1-6
Max Horiz	1=-83 (LC 10)
Max Uplift	1=-76 (LC 21), 3=-76 (LC 20), 4=-104 (LC 14)
Max Grav	1=81 (LC 20), 3=81 (LC 21), 4=917 (LC 20)

FORCES

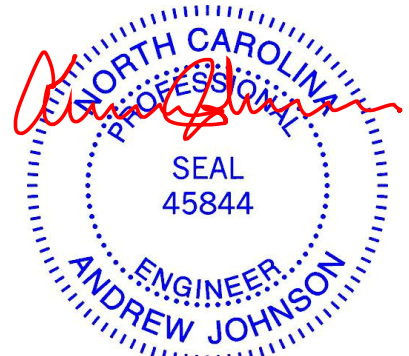
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-120/487, 2-3=-120/487
BOT CHORD	1-4=-294/168, 3-4=-294/168
WEBS	2-4=-723/251

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 8-1-12, Exterior(2E) 8-1-12 to 11-1-12 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.

- 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
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 1, 76 lb uplift at joint 3 and 104 lb uplift at joint 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.

LOAD CASE(S) Standard



November 6, 2024

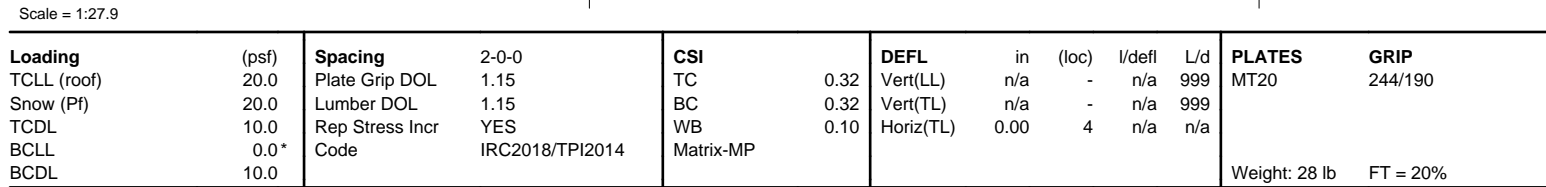
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1, 28 lb uplift at joint 3 and 66 lb uplift at joint 4.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 6, 2024

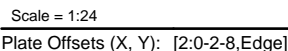
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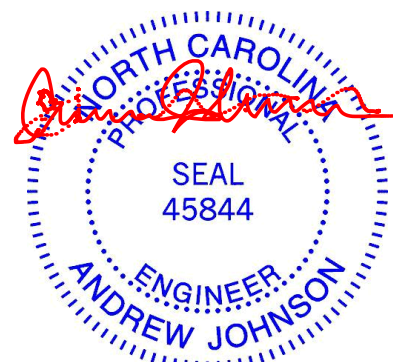
LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 5-1-6 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS	(size) 1=5-1-6, 3=5-1-6 Max Horiz 1=-36 (LC 10) Max Uplift 1=-19 (LC 14), 3=-19 (LC 15) Max Grav 1=243 (LC 20), 3=243 (LC 21)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-367/129, 2-3=-367/129
BOT CHORD	1-3=-94/293

- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1 and 19 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL; Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.



November 6.2024



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-1473 Rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only on 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcacompnents.com)



818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



* 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.

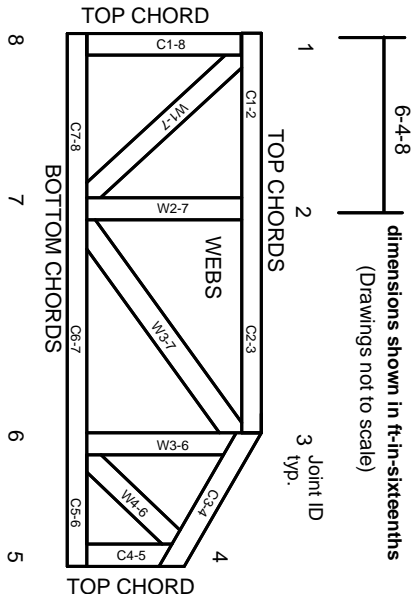
BEARING



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

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

MITek®

ENGINEERING BY
TRENCO
A MITek Affiliate

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