

NOTICE TO CONTRACTOR

All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED

Limited building only review

Permit holder responsible for full compliance with the code

08/13/2025

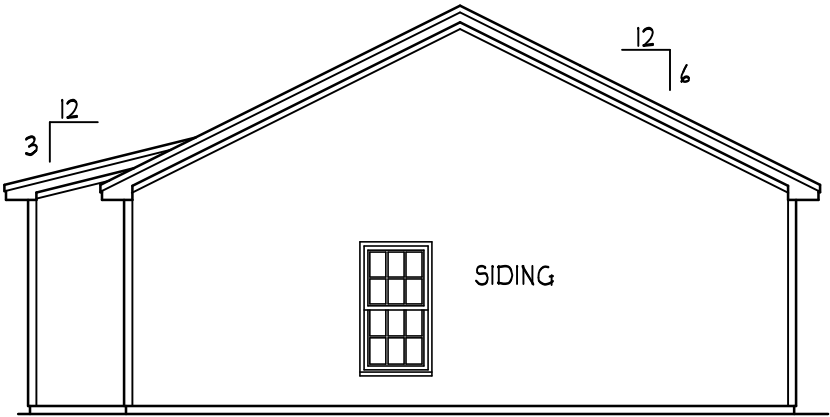




*SHOWN AS
MONO SLAB

FRONT ELEVATION

SCALE 1/4" = 1'-0"



REAR ELEVATION

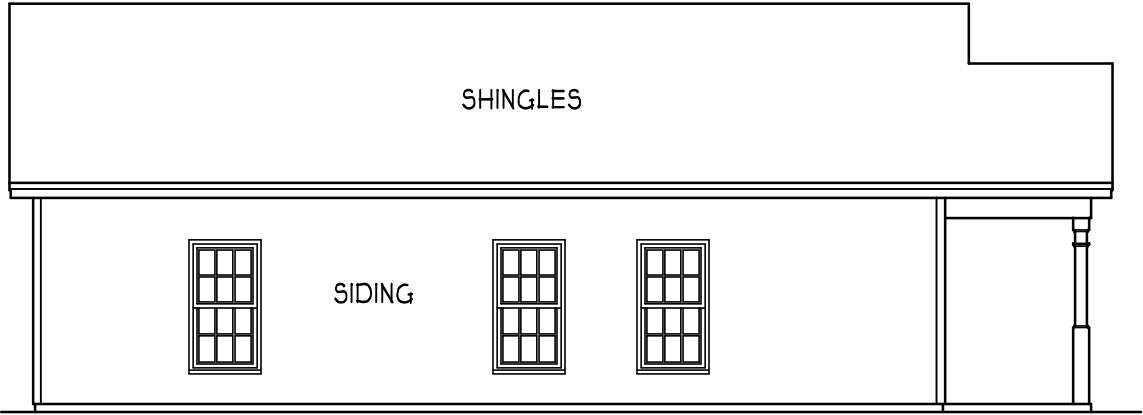
SCALE 1/8" = 1'-0"

ENERGY COMPLIANCE
ZONE 3 = MAX. GLAZING U-FACTOR .35
R-VALUE = CEILING R38, WALLS R15,
FLOORS R19 FOR JOHNSTON, WAYNE COUNTY
ZONE 4 = MAX. GLAZING U-FACTOR .35
R-VALUE = CEILING R38, WALLS R15,
FLOORS R19 FOR WAKE, ORANGE COUNTY

ATTIC VENTILATION:

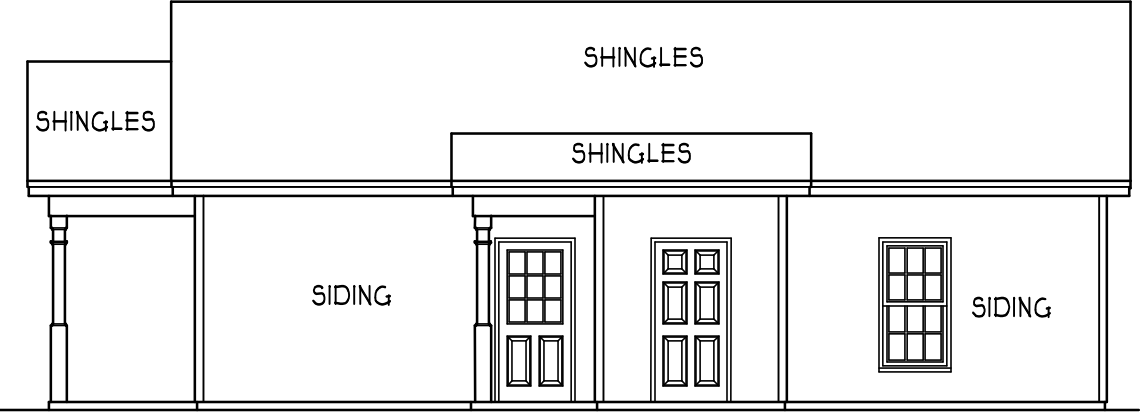
THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1 TO 150 OF THE AREA OF THE SPACE VENTILATED EXCEPT THAT THE AREA MAY BE 1 TO 300, PROVIDED AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION TO BE PROVIDED BY EAVE OR CORNICE VENTS.

GROSS ATTIC AREA TO BE VENTILATED 1218 SQ.FT.
1218/150 = 8.12 SQ.FT. NET FREE AREA



LEFT ELEVATION

SCALE 1/8" = 1'-0"



RIGHT ELEVATION

SCALE 1/8" = 1'-0"

THE NICHOLAS

RIGHT SIDE ENTRY

BVA BUILDERS

HEATED FOOTAGE:

#1064

SQUARE FOOTAGE:

= 1064

FIRST FLOOR

= 102

FRONT PORCH

= 20

SIDE PORCH

= 32

STORAGE

HEATHER HALL

165 HEATHERSTONE CT

BENSON NC 27504

(919) 207-1403

H SQUARED

HOME

DESIGN, INC.



ANY DEVIATION OF THE SPECIFIED MEASUREMENTS OR DIMENSIONS FROM THE DESIGN SHALL BE THE RESPONSIBILITY OF THE CLIENT.
THIS PLAN HAS BEEN DRAWN, CHECKED, AND APPROVED BY A PROFESSIONAL ARCHITECT IN ACCORDANCE WITH THE NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.

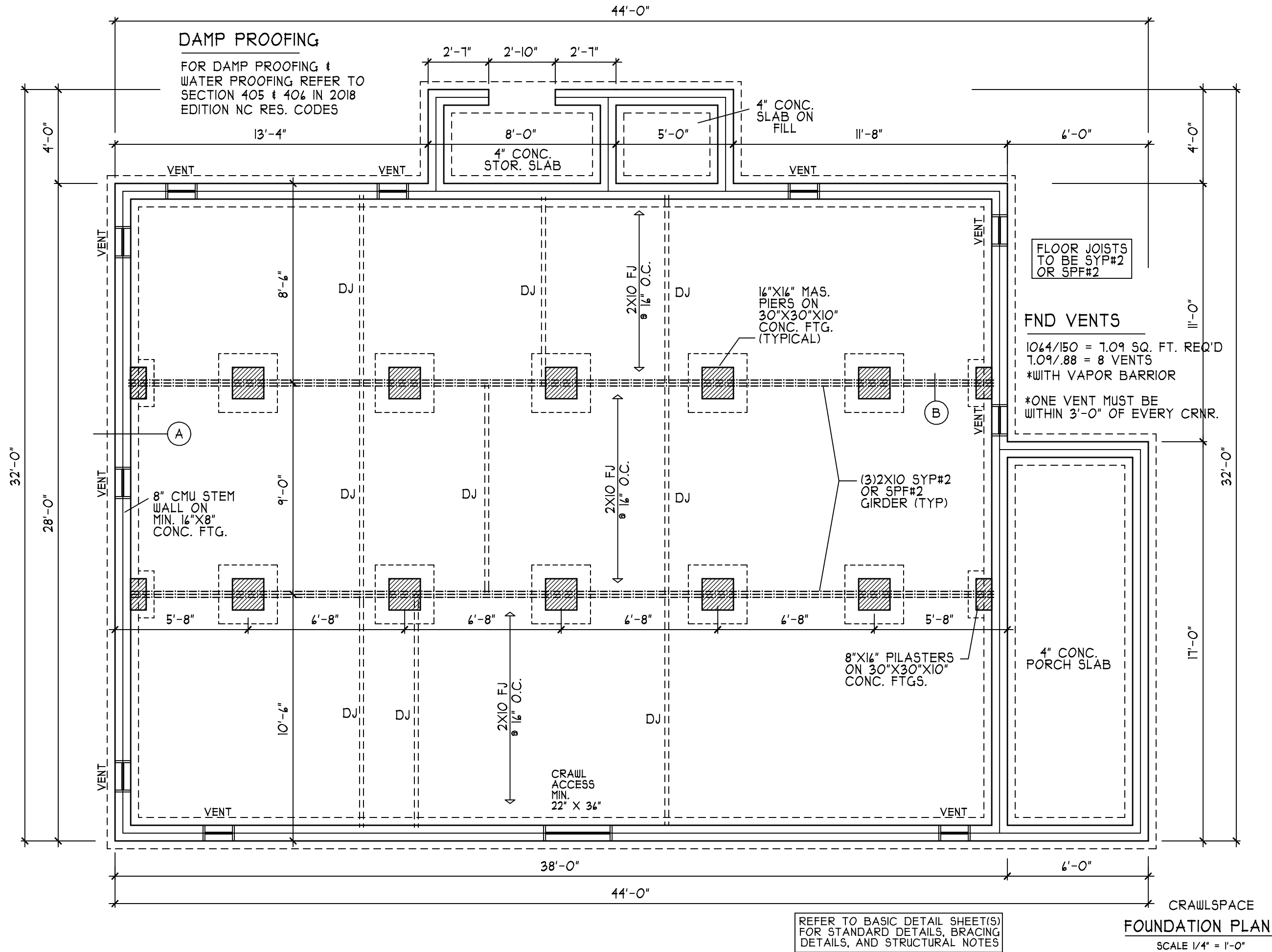
DATE:

09/19/22

1 STORY

FILE:

081422



DAMP PROOFING

FOR DAMP PROOFING &
WATER PROOFING REFER TO
SECTION 405 & 406 IN 2018
EDITION NC RES. CODES

4" CONC.
SLAB ON
FILL

8'-0"
4" CONC.
STOR. SLAB

FLOOR JOISTS
TO BE SYP#2
OR SPF#2

FND VENTS

1064/150 = 7.09 SQ. FT. REQ'D
7.09/.88 = 8 VENTS
*WITH VAPOR BARRIER

*ONE VENT MUST BE
WITHIN 3'-0" OF EVERY CNR.

(3)2X10 SYP#2
OR SPF#2
GIRDER (TYP)

8"X16" PILASTERS
ON 30"X30"X10"
CONC. FTGS.

4" CONC.
PORCH SLAB

CRAWL
ACCESS
MIN.
22" X 36"

REFER TO BASIC DETAIL SHEET(S)
FOR STANDARD DETAILS, BRACING
DETAILS, AND STRUCTURAL NOTES

CRAWLSPACE
FOUNDATION PLAN
SCALE 1/4" = 1'-0"

THE NICHOLAS
RIGHT SIDE ENTRY

BVA BUILDERS

HEATED FOOTAGE:

#1064

SQUARE FOOTAGE:

FIRST FLOOR = 1064

FRONT PORCH = 102

SIDE PORCH = 20

STORAGE = 32

HEATHER HALL
165 HEATHERSTONE CT
BENSON NC 27504
(919) 207-1403

H SQUARED
HOME
DESIGN, INC.

H

ANY DEVIATION OF THE
SPECIFIED MEASUREMENTS
OR DIMENSIONS Voids
INC'S LIABILITY.
THIS PLAN HAS BEEN DRAWN
IN ACCORDANCE WITH THE
CAROLINA STATE RESIDENTIAL
BUILDING CODES 2018 EDITION.

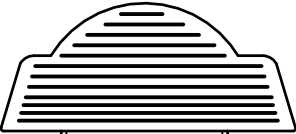
DATE:

09/19/22

I STORY

FILE:

081422



THE NICHOLAS
RIGHT SIDE ENTRY
BVA BUILDERS

HEATED FOOTAGE:
#1064

SQUARE FOOTAGE:
FIRST FLOOR = 1064
FRONT PORCH = 102
SIDE PORCH = 20
STORAGE = 32

HEATHER HALL
165 HEATHERSTONE CT
BENSON NC 27504
(919) 207-1403

H SQUARED HOME
DESIGN, INC.

ANY DEVIATION OF THE
SPECIFIED MEASUREMENTS
FROM THE DRAWING SHALL BE
THE RESPONSIBILITY OF THE
CLIENT. THIS PLAN HAS BEEN
DESIGNED IN ACCORDANCE WITH
NORTH CAROLINA BUILDING
CODES 2008 EDITION.

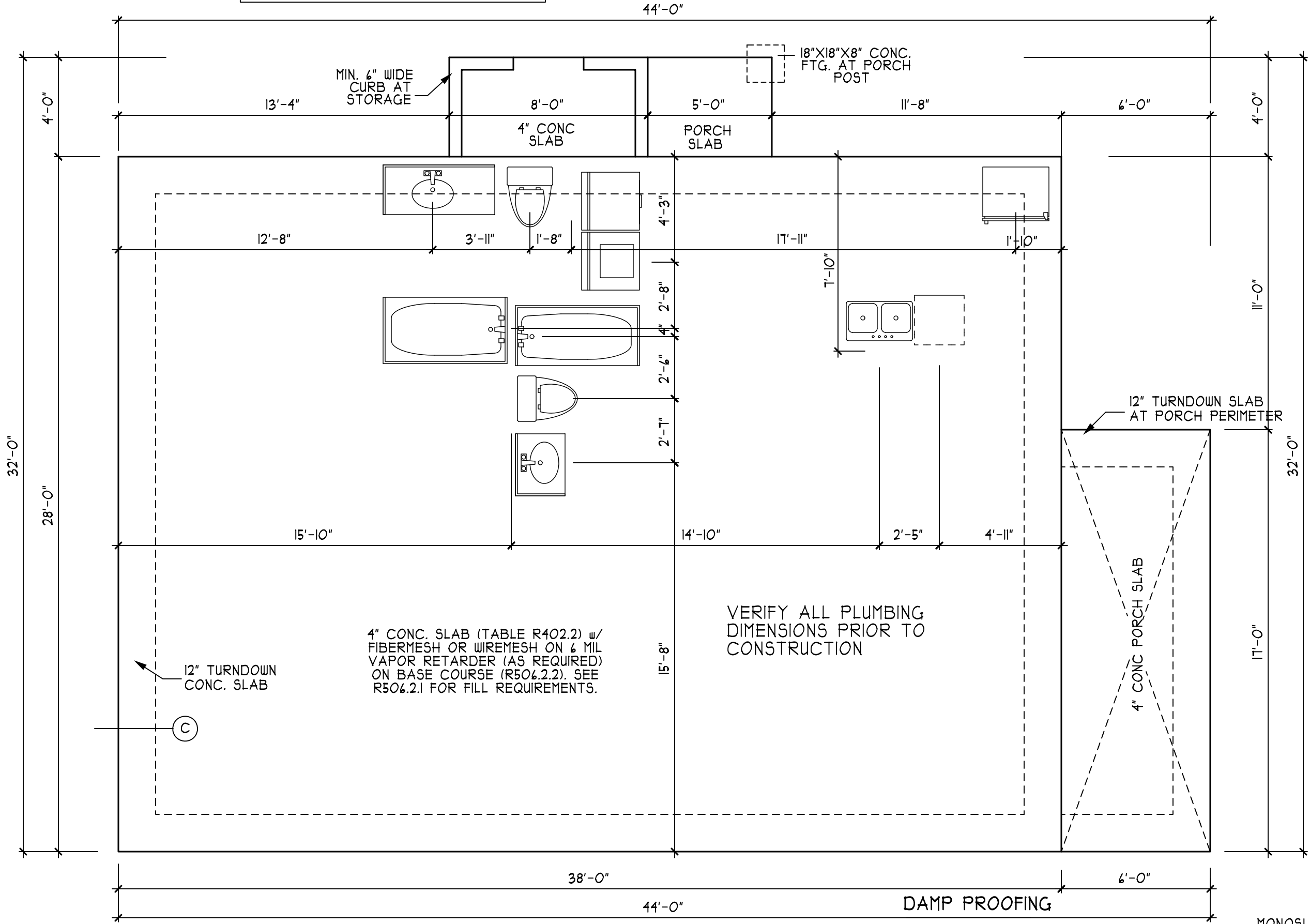
DATE:
10/09/2023

I STORY

FILE:
081422

NOTE ASSUMED SOIL BEARING CAPACITY = 2000
PSF CONTRACTOR MUST VERIFY SITE CONDITIONS
AND CONTACT SOILS ENGINEER IF MARGINAL OR
UNSTABLE SOILS ARE ENCOUNTERED

REFER TO BASIC DETAIL SHEET(S)
FOR STANDARD DETAILS, BRACING
DETAILS, AND STRUCTURAL NOTES

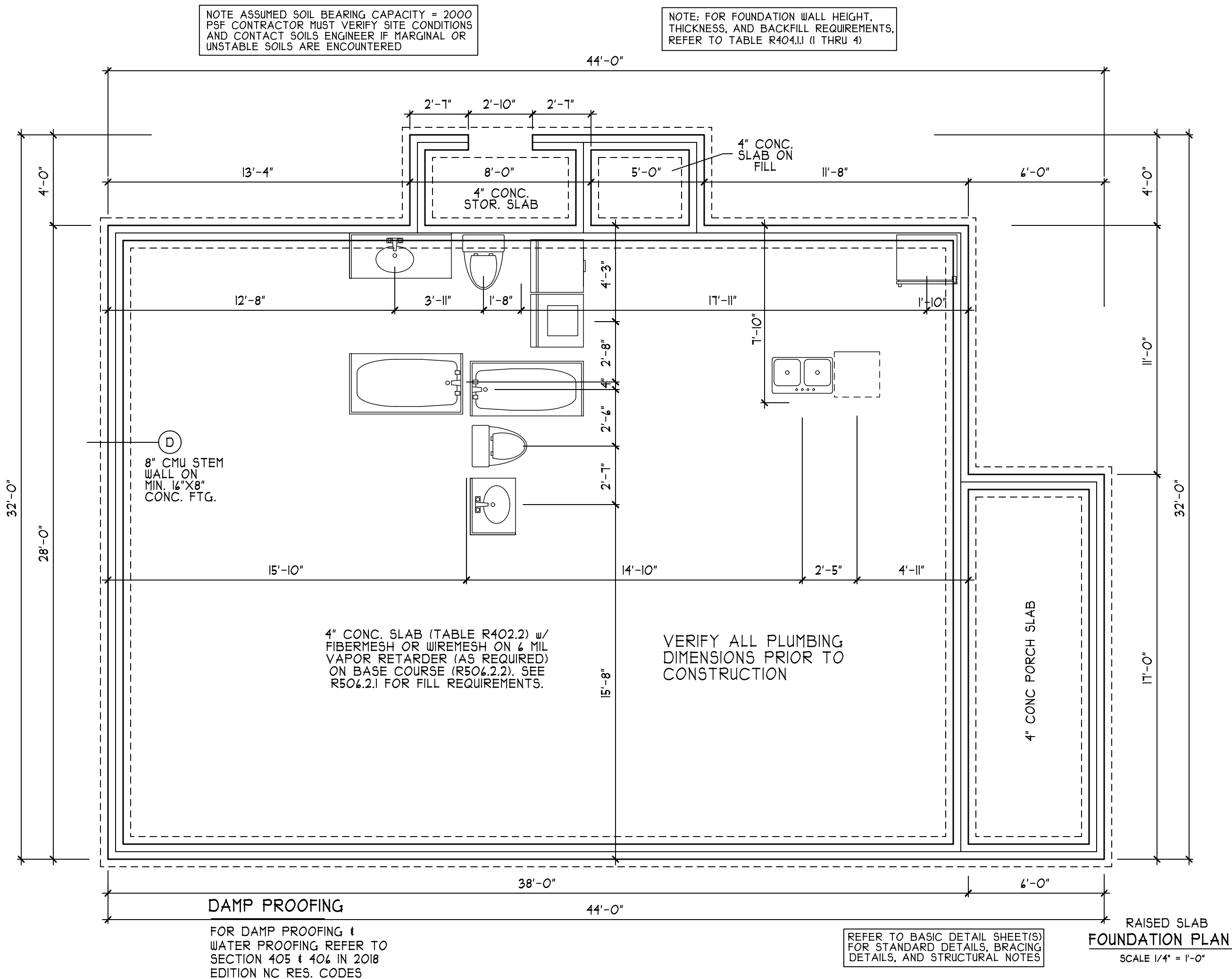


DAMP PROOFING

FOR DAMP PROOFING &
WATER PROOFING REFER TO
SECTION 405 & 406 IN 2018
EDITION NC RES. CODES

MONOSLAB
FOUNDATION PLAN

SCALE 1/4" = 1'-0"



THE NICHOLAS
RIGHT SIDE ENTRY

BVA BUILDERS

HEATED FOOTAGE:
#1064

SQUARE FOOTAGE:
FIRST FLOOR = 1064
FRONT PORCH = 102
SIDE PORCH = 20
STORAGE = 32

HEATHER HALL
165 HEATHERSTONE CT
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H²

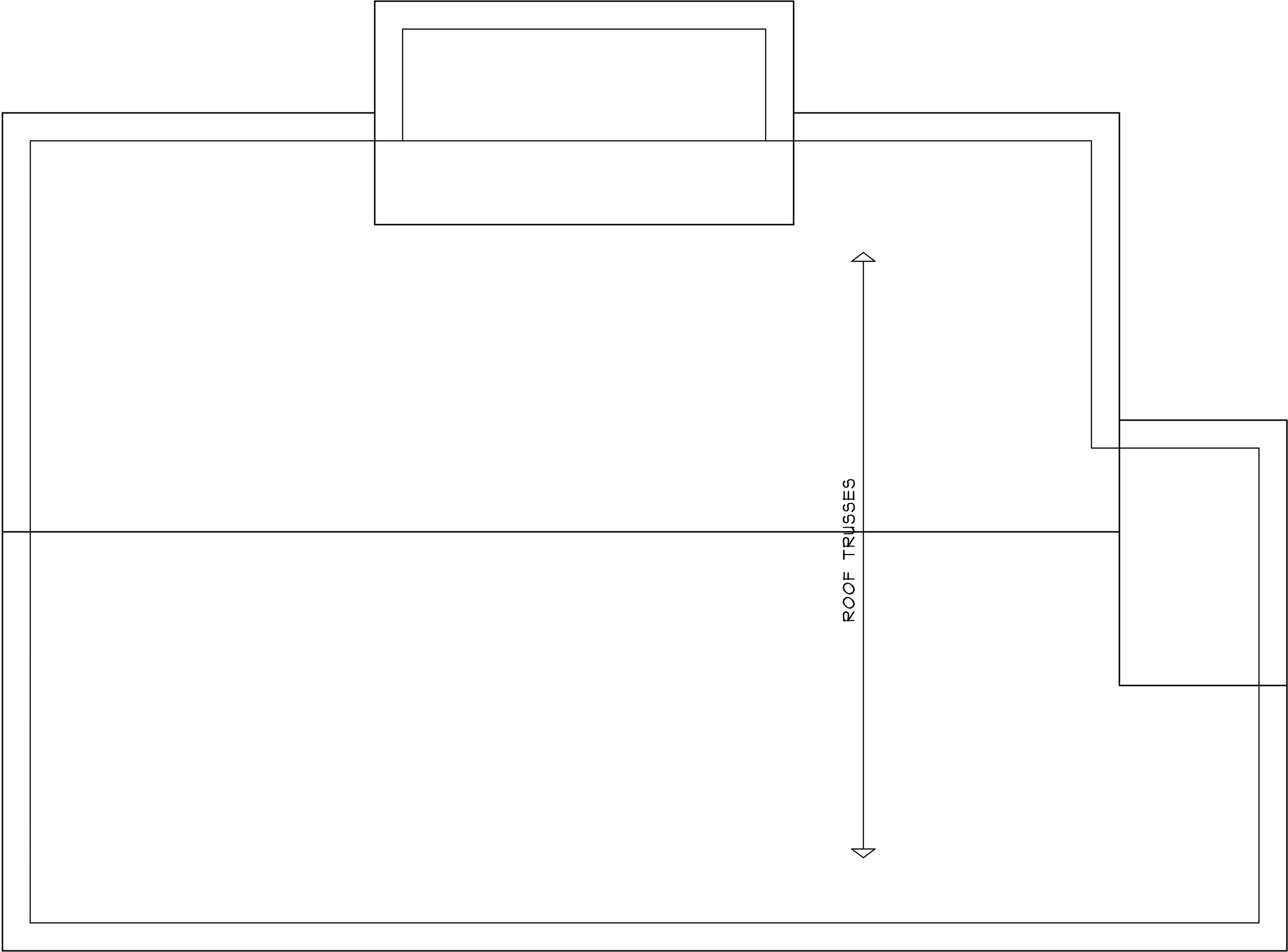
H SQUARED HOME
DESIGN, INC.

ANY DEVIATION OF THE SPECIFIED MEASUREMENTS SHALL BE THE RESPONSIBILITY OF H SQUARED HOME DESIGN, INC.'S LIABILITY.
THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA RESIDENTIAL BUILDING CODES 2008 EDITION

DATE:
10/09/2023

I STORY

FILE:
081422



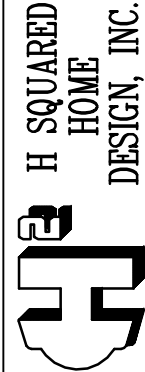
ROOF PLAN
SCALE 1/4" = 1'-0"

ANY DEVIATION OF THE SPECIFIED MEASUREMENTS OR DIMENSIONS Voids INC'S LIABILITY.
THIS PLAN HAS BEEN DRAWN, CHECKED AND VERIFIED IN ACCORDANCE WITH THE FLORIDA BUILDING CODES 2018 EDITION.

DATE: 09/19/22

1 STORY

FILE: 081422

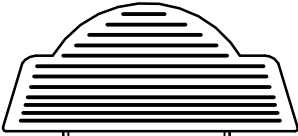


HEATHER HALL
165 HEATHERSTONE CT
BENSON NC 27504
(919) 207-1403

SQUARE FOOTAGE:
FIRST FLOOR = 1064
FRONT PORCH = 102
SIDE PORCH = 20
STORAGE = 32

HEATED FOOTAGE:
#1064

THE NICHOLAS
RIGHT SIDE ENTRY
BVA BUILDERS



ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER OR DESIGNER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER OR DESIGNER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED, ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.

2) DESIGN LOADS (R301.4)	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (LL)
ROOMS OTHER THAN SLEEPING ROOMS	40	10	L/360
SLEEPING ROOMS	30	10	L/360
ATTIC WITH PERMANENT STAIR	40	10	L/360
ATTIC WITH OUT PERMANENT STAIR	20	10	L/360
ATTIC WITH OUT STORAGE	10	10	L/240
STAIRS	40	--	L/360
EXTERIOR BALCONIES	60	10	L/360
DECKS	40	10	L/360
GUARDRAILS AND HANDRAILS	200	--	----
PASSENGER VEHICLE GARAGES	50	10	L/360
FIRE ESCAPES	40	10	L/360
SNOW	20	--	----
WIND LOAD (BASED ON 115/120 MPH WIND VELOCITY & EXPOSURE B)			

3) WALL BRACING: BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO SECTION R602.10.3. THE AMOUNT AND LOCATION OF BRACING SHALL COMPLY WITH TABLE R602.10.1. THE LENGTH OF BRACED PANELS SHALL BE DETERMINED BY SECTION R602.10.4. LATERAL BRACING SHALL BE SATISFIED PER METHOD 3 BY CONTINUOUSLY SHEATHING WALLS WITH STRUCTURAL SHEATHING PER SECTION R602.10.3. NOTE THAT ANY SPECIFIC BRACED WALL DETAIL SHALL BE INSTALLED AS SPECIFIED.

4) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIR ENTRAINMENT PER TABLE 402.2. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP.

5) ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAINSURFACE WATER AWAY FROM FOUNDATION WALLS.

6) ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP # 2 (Fb=975 PSI). PLATE MATERIAL MAY BE SPF # 3 OR SYP #3 (Fc(perp) = 425 PSI - MIN).

7) ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS:
(1) 2x4 STUD COLUMN FOR 6'-0" MAX. BEAM SPAN (UNO), (2) 2x4 STUDS FOR BEAM SPAN GREATER THAN 6'-0" (UNO).

8) L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1.9x10⁶ PSI.
P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2.0x10⁶ PSI.
L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55x10⁶ PSI.
INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.

9) ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH ANY SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS. ANY CHANGE IN TRUSS OR I-JOIST LAYOUT SHALL BE COORDINATED WITH DESIGNER OR ENGINEER.

10) ALL STRUCTURAL STEEL SHALL BE ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER x 4' LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. . ALL STEEL TUBING SHALL BE ASTM A500.

II) REBAR SHALL BE DEFORMED STEEL, ASTM#15, GRADE 60.

(2) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 4' FROM EACH END.

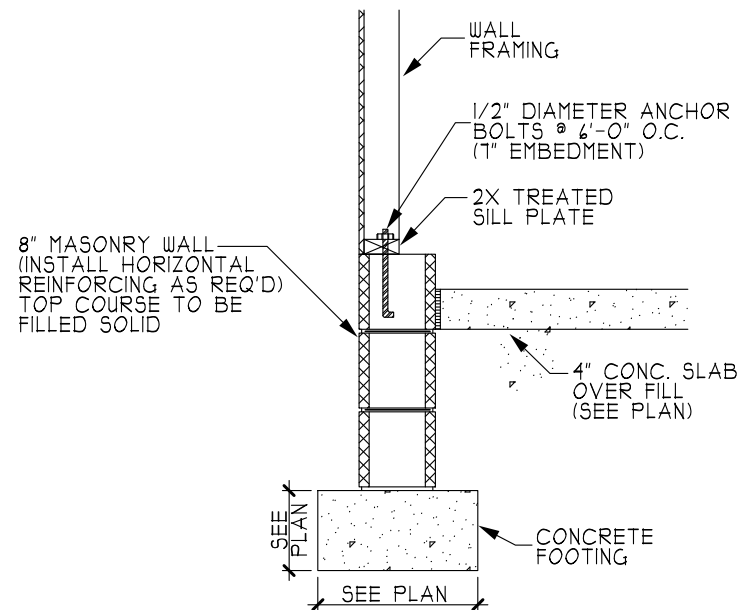
13) BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0" (UNO).

14) THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF.

15) THE POSITIVE AND NEGATIVE DESIGN PRESSURES REQUIRED FOR ANY ROOF OR WALL CLADDING APPLICATION NOT SPECIFICALLY ADDRESSED IN THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION SHALL BE AS FOLLOWS:

ROOF:
45.4 PSF - 2.25:12 PITCH OR LESS
34.8 PSF - 2.25:12 TO 1:12 PITCH
21 PSF - 1:12 TO 12:12 PITCH

WALLS:
24.1 PSF - WALLS



① GARAGE WALL FOOTING
(SIDING)

I. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2) 2x6 (4" WALL) OR (3) 2x6 (6" WALL) WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.

2. THE NUMBER SHOWN AT BEAM AND
HEADER SUPPORTS INDICATES THE
NUMBER OF SUPPORT STUDS
REQUIRED IN STUD POCKET OR
COLUMN. THE NUMBER OF KING STUDS AT
EACH END OF HEADERS IN EXTERIOR WALLS
SHALL BE ACCORDING TO ITEM "d" IN
TABLE R602.3(5) OR AS BELOW:

- UP TO 4' SPAN: (1) KING STUD
- OVER 4' UP TO 8' SPAN: (2) KING STUDS
- OVER 8' UP TO 11' SPAN: (3) KINGS STUDS
- OVER 11' SPAN: (4) KING STUDS

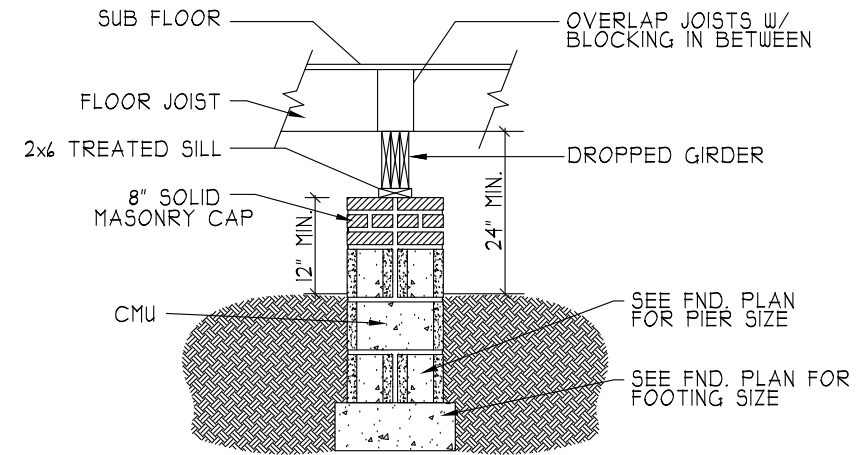
NC (2018 NCRC):

I. TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED TRUSS PROFILES. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH THE TRUSS MANUFACTURER.

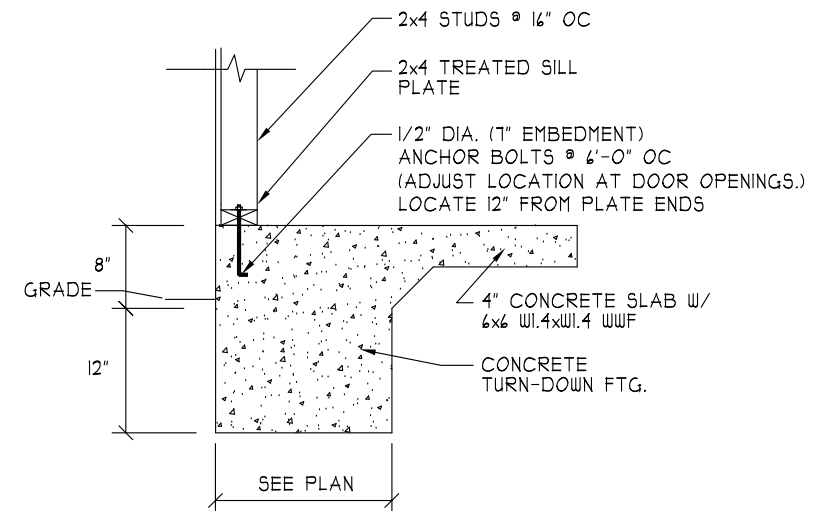
2. TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.

3. ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (UNO).

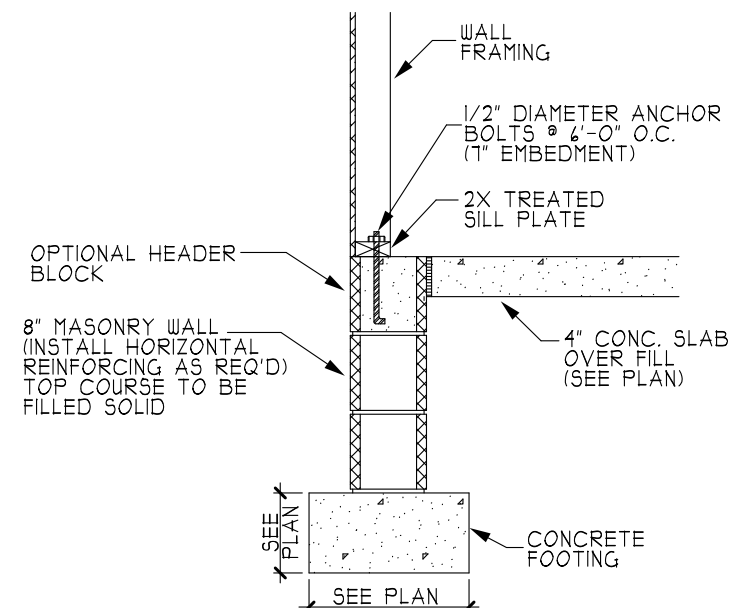
4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.



⑤ DROPPED GIRDER



© TURN DOWN SLAB FOOTING



④ STEM WALL FOOTING
(SIDING)

DETAIL SHEET

(115/120 MPH)

**NOT ALL DETAILS MAY
APPLY TO THIS PLAN**

HEATHER HALL
65 HEATHERSTONE CT
BENSON NC 27504
(919) 207-1403

**H SQUARED
HOME
DESIGN, INC.**



THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.

DATE:

FILE:



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

Phone #:919-775-1450



Builder: BVA Enterprises
Model: Nicolas

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.

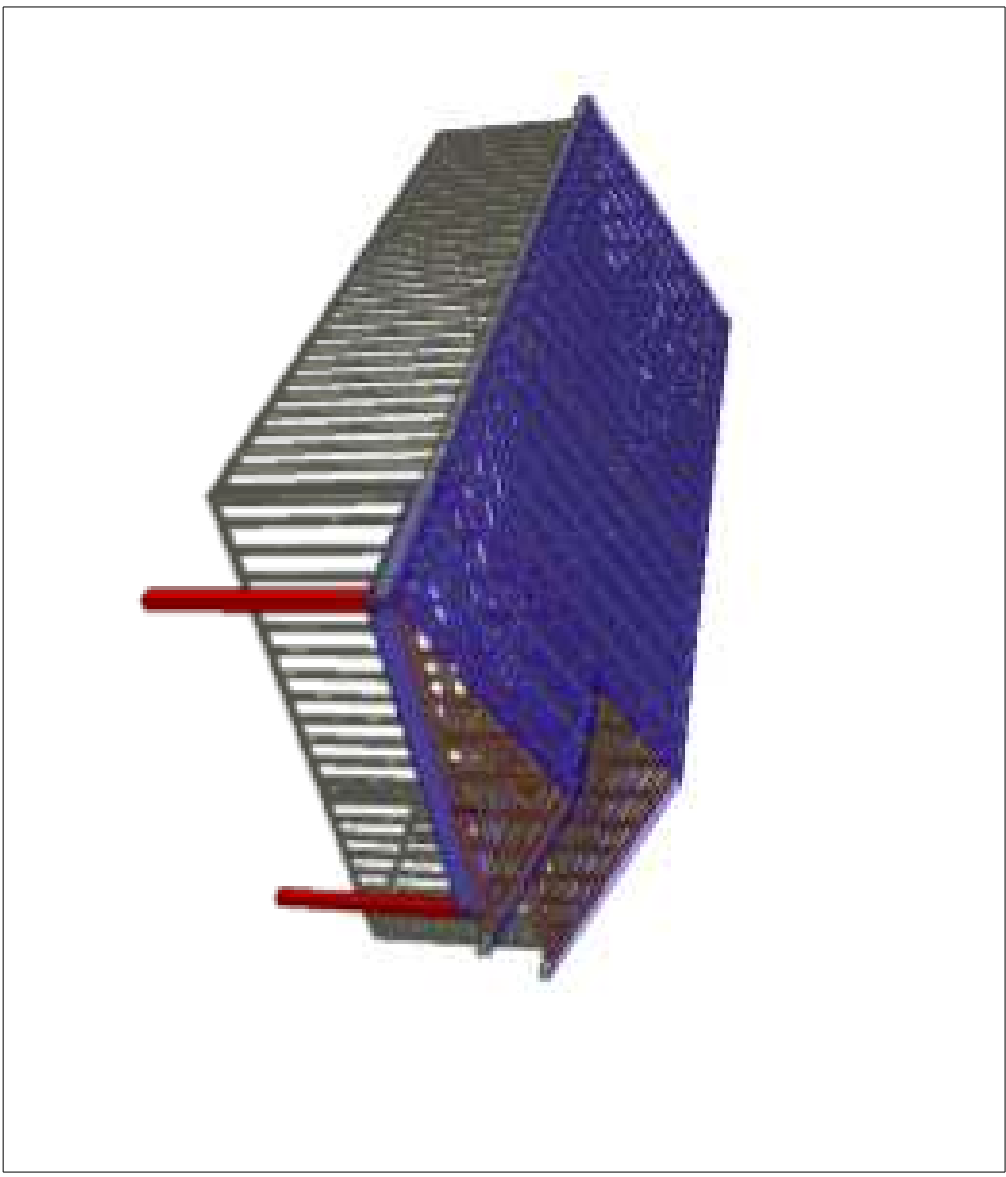
Approved by: _____

Date: _____

General Notes:

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

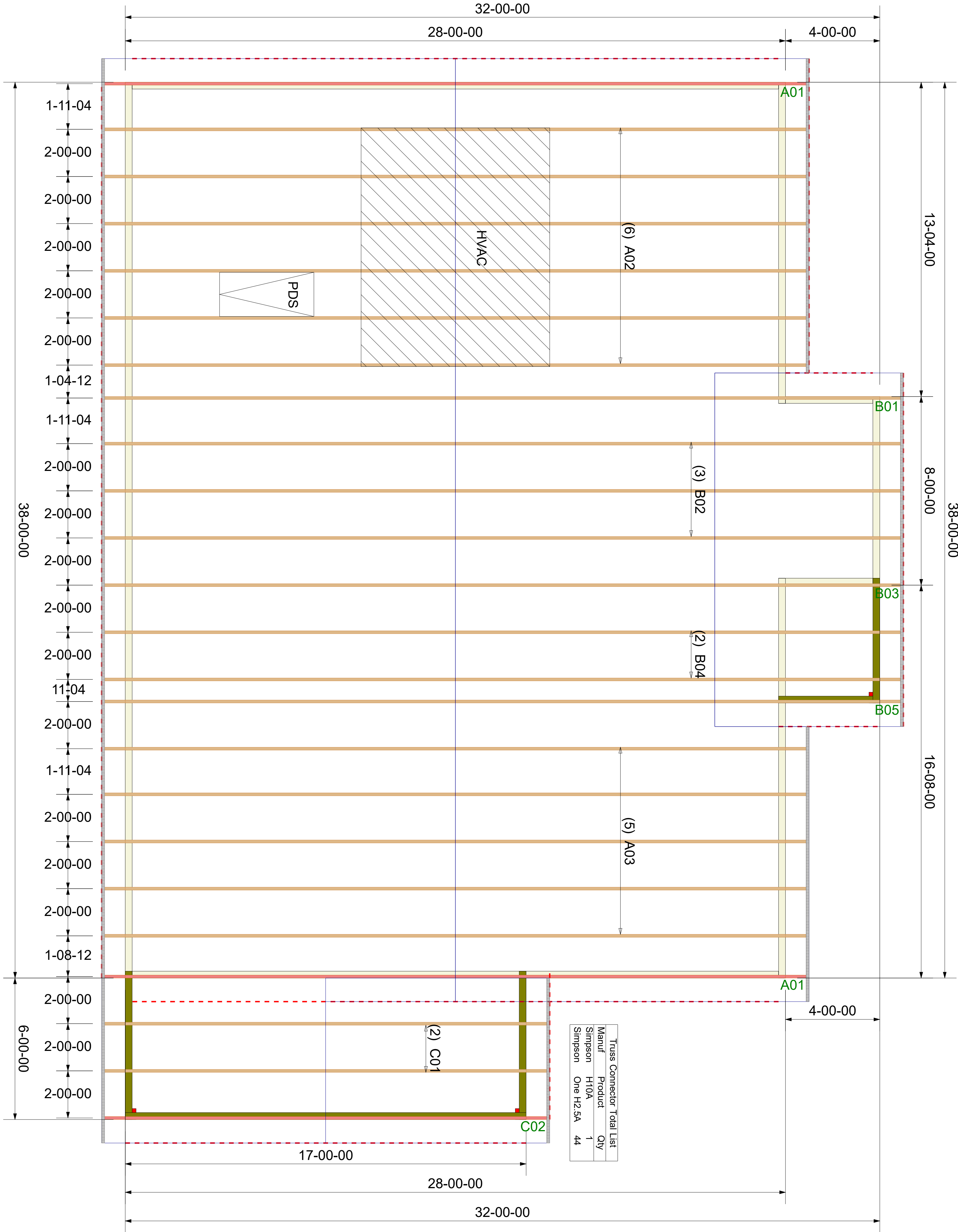
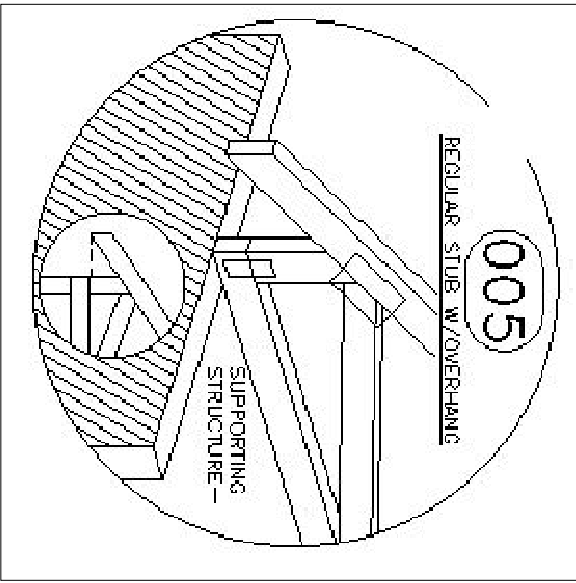
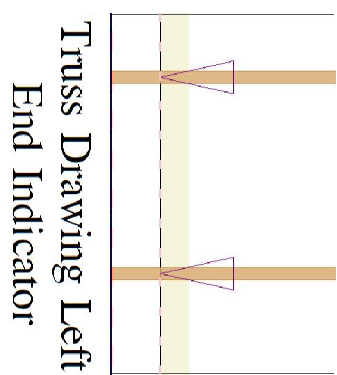
** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.



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

** TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE.

** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.



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

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

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

** 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.

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 tuss 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'Onifrio Drive: Madison, WI 53179



BVA Enterprises	
Nicolas	
PLACEMENT PLAN	

Scale:	NTS
Date:	2/21/2024
Designer:	NC
Project Number:	24020066
Sheet Number:	1/1

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 24020067-01
281 Church-Roof-Nicolas GLH

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: I63763038 thru I63763047

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

North Carolina COA: C-0844



February 22, 2024

Gilbert, Eric

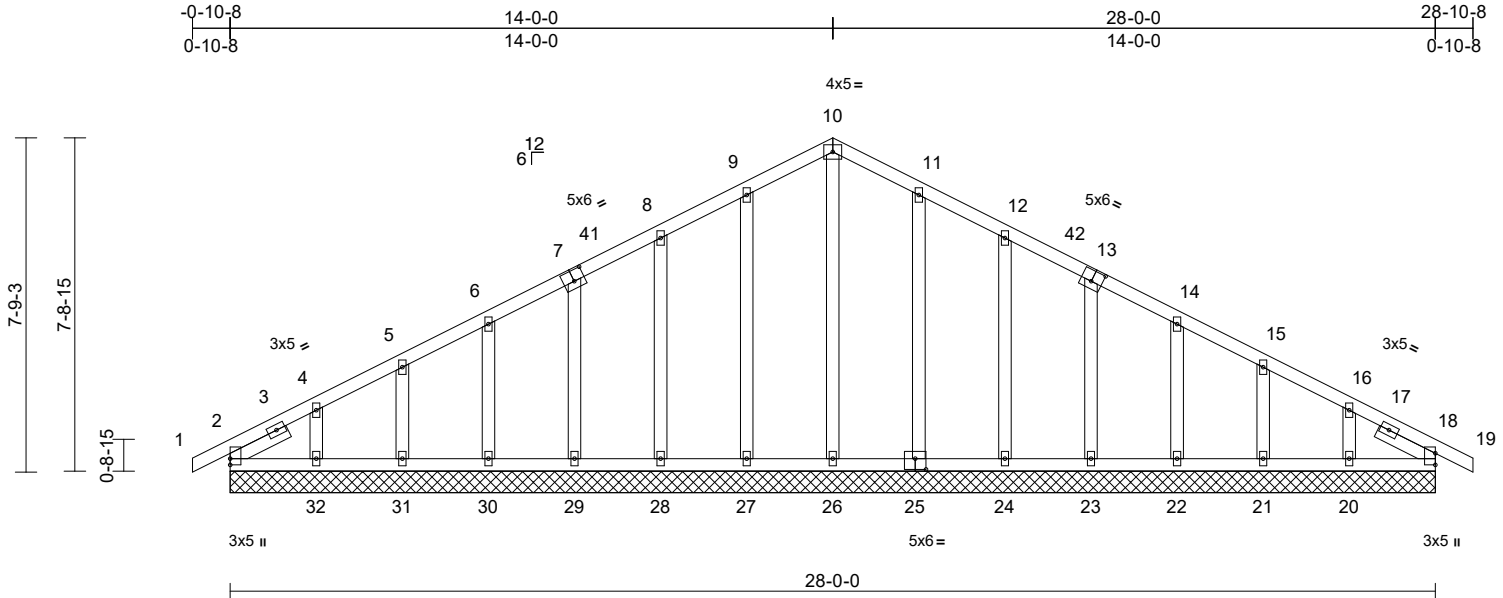
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763038
24020067-01	A01	Common Supported Gable	2	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Feb 21 08:29:23
ID: dhy??BgWMufZfTXIPW?dbzlAn1-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrcD0i7J4zJC7f

Page: 1



Scale = 1:53.5

Plate Offsets (X, Y): [7:0-3-0,0-3-0], [13:0-3-0,0-3-0], [25:0-3-0,0-3-0]												
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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	18	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 173 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)
2=28-0-0, 18=28-0-0, 20=28-0-0, 21=28-0-0, 22=28-0-0, 23=28-0-0, 24=28-0-0, 25=28-0-0, 26=28-0-0, 27=28-0-0, 28=28-0-0, 29=28-0-0, 30=28-0-0, 31=28-0-0, 32=28-0-0, 33=28-0-0, 37=28-0-0
Max Horiz 2=-114 (LC 15), 33=-114 (LC 15)
Max Uplift 2=-17 (LC 15), 20=-73 (LC 15), 21=-36 (LC 15), 22=-42 (LC 15), 23=-42 (LC 15), 24=-45 (LC 15), 25=-40 (LC 15), 27=-41 (LC 14), 28=-45 (LC 14), 29=-41 (LC 14), 30=-43 (LC 14), 31=-33 (LC 14), 32=-85 (LC 14), 33=-17 (LC 15)
Max Grav 2=138 (LC 21), 18=139 (LC 22), 20=154 (LC 35), 21=157 (LC 22), 22=152 (LC 35), 23=168 (LC 22), 24=226 (LC 22), 25=235 (LC 22), 26=163 (LC 27), 27=236 (LC 21), 28=225 (LC 21), 29=169 (LC 21), 30=152 (LC 34), 31=156 (LC 21), 32=154 (LC 34), 33=138 (LC 21), 37=139 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-4=-135/57, 4-5=-92/63, 5-6=-72/80, 6-8=-55/129, 8-9=-69/175, 9-10=-86/216, 10-11=-86/216, 11-12=-69/176, 12-14=-52/130, 14-15=-46/44, 15-16=-59/20, 16-18=-86/33, 18-19=0/23
BOT CHORD 2-32=-23/110, 31-32=-23/110, 30-31=-23/110, 29-30=-23/110, 28-29=-24/111, 27-28=-24/111, 26-27=-24/111, 24-26=-24/111, 23-24=-23/110, 22-23=-22/109, 21-22=-22/109, 20-21=-22/109, 18-20=-22/109
WEBS 10-26=-130/19, 9-27=-197/70, 8-28=-186/80, 7-29=-130/74, 6-30=-113/74, 5-31=-119/71, 4-32=-111/107, 11-25=-196/69, 12-24=-186/80, 13-23=-130/74, 14-22=-113/74, 15-21=-119/71, 16-20=-111/107

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 Corner(3E) 0-0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 11-0-0, Corner(3R) 11-0-0 to 17-0-0, Exterior (2N) 17-0-0 to 25-10-8, Corner(3E) 25-10-8 to 28-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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.



February 22, 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.sbcacompoments.com)

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH
24020067-01	A01	Common Supported Gable	2	1	I63763038
					Job Reference (optional)

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 2, 41 lb uplift at joint 27, 45 lb uplift at joint 28, 41 lb uplift at joint 29, 43 lb uplift at joint 30, 33 lb uplift at joint 31, 85 lb uplift at joint 32, 40 lb uplift at joint 25, 45 lb uplift at joint 24, 42 lb uplift at joint 23, 42 lb uplift at joint 22, 36 lb uplift at joint 21, 73 lb uplift at joint 20 and 17 lb uplift at joint 2.
- 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 33.
- 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

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

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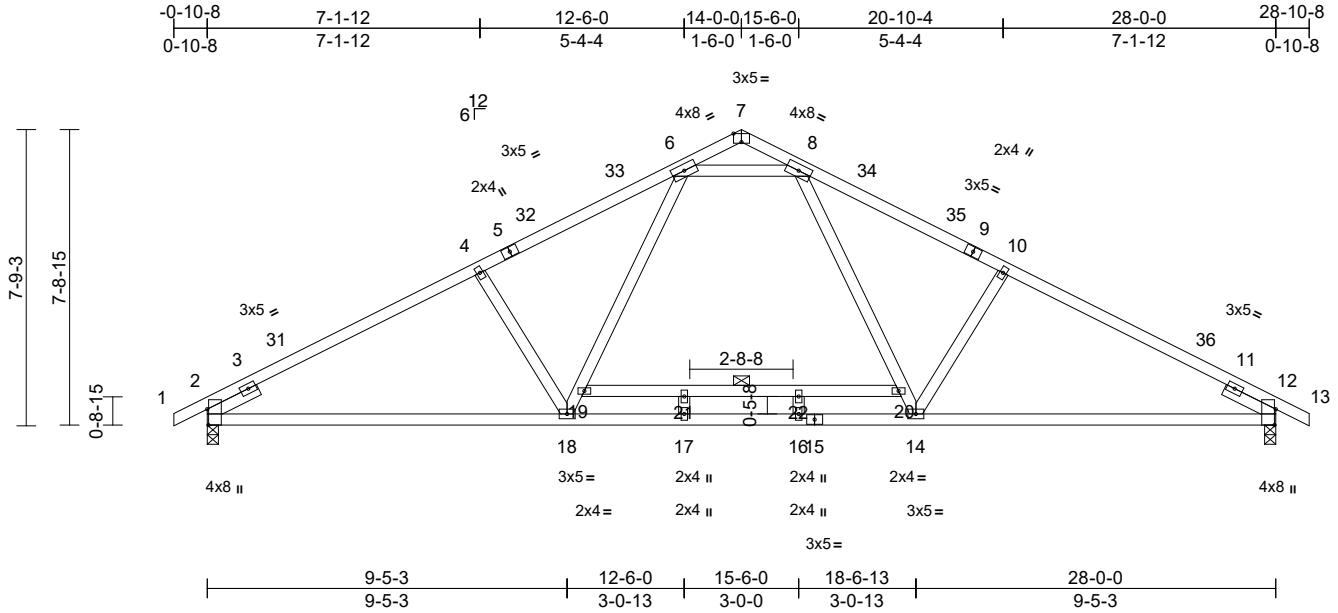
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763039
24020067-01	A02	Common	6	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:60.4

Plate Offsets (X, Y): [2:0-5-0,Edge], [7:0-2-8,Edge], [12:0-5-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.24	14-29	>999	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.32	14-29	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.07	12	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 149 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 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 2-2-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 19-20

REACTIONS

(size)	2=0-3-8, 12=0-3-8
Max Horiz	2=-118 (LC 15)
Max Uplift	2=-124 (LC 14), 12=-124 (LC 15)
Max Grav	2=1188 (LC 21), 12=1188 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/23, 2-4=-1813/242, 4-6=-1623/261, 6-7=-53/127, 7-8=-53/127, 8-10=-1623/261, 10-12=-1813/242, 12-13=0/23
BOT CHORD	2-18=-236/1552, 17-18=-43/1173, 16-17=-43/1173, 14-16=-43/1173, 12-14=-141/1552
WEBS	8-20=-83/543, 14-20=-87/521, 10-14=-406/220, 18-19=-88/521, 6-19=-83/543, 4-18=-406/220, 19-21=-19/0, 21-22=-19/0, 20-22=-19/0, 17-21=0/29, 16-22=0/29, 6-8=-1213/301

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-0-0, Exterior(2R) 11-0-0 to 17-0-0, Interior (1) 17-0-0 to 25-10-8, Exterior(2E) 25-10-8 to 28-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 12. 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



February 22,2024

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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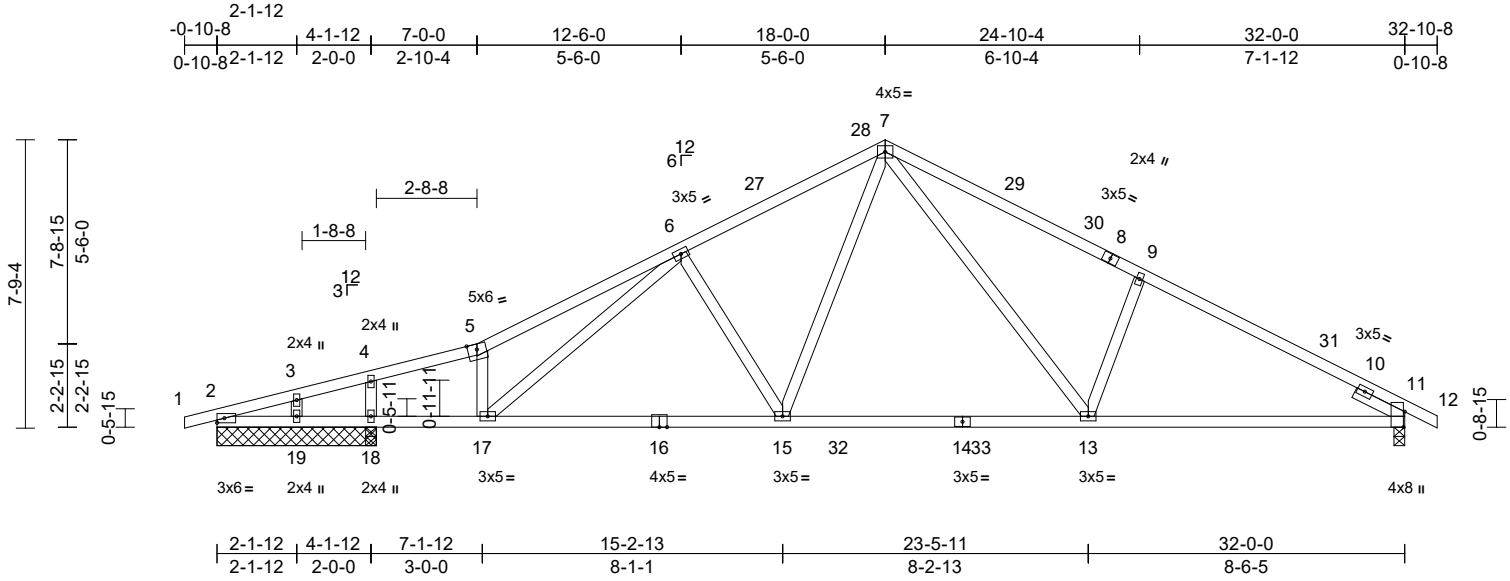
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763040
24020067-01	B01	Roof Special	1	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:62.1

Plate Offsets (X, Y): [11:0-5-0,Edge]

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	1.00	Vert(LL)	-0.27	15-17	>999	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.54	15-17	>623	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.07	11	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 159 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.1 *Except* 5-7,8-12:2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E *Except* 16-14:2x4 SP No.1
WEBS 2x4 SP No.3
SLIDER Right 2x4 SP No.3 -- 1-6-0

BRACING

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

REACTIONS

(size) 2=4-3-8, 11=0-3-8, 18=4-3-8, 19=4-3-8, 20=4-3-8
Max Horiz 2=116 (LC 14), 20=116 (LC 14)
Max Uplift 2=77 (LC 14), 11=121 (LC 15), 18=135 (LC 14), 19=842 (LC 36), 20=77 (LC 14)
Max Grav 2=1081 (LC 5), 11=1291 (LC 6), 18=1230 (LC 5), 19=44 (LC 14), 20=1081 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-2473/292, 3-4=-2371/299, 4-5=-2488/334, 5-6=-2615/411, 6-7=-1832/373, 7-9=-1937/409, 9-11=-2027/349, 11-12=0/23
BOT CHORD 2-19=-234/2354, 18-19=-234/2354, 17-18=-234/2354, 15-17=-181/1823, 13-15=-54/1253, 11-13=-193/1755
WEBS 5-17=-556/158, 6-17=-55/687, 6-15=-613/201, 7-15=-87/921, 7-13=-144/721, 9-13=-428/221, 4-18=-580/111, 3-19=0/364

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 2-1-12, Interior (1) 2-1-12 to 14-9-10, Exterior(2R) 14-9-10 to 21-2-6, Interior (1) 21-2-6 to 29-8-2, Exterior(2E) 29-8-2 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 842 lb uplift at joint 19.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at joint 11. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 22,2024

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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Edenton, NC 27932

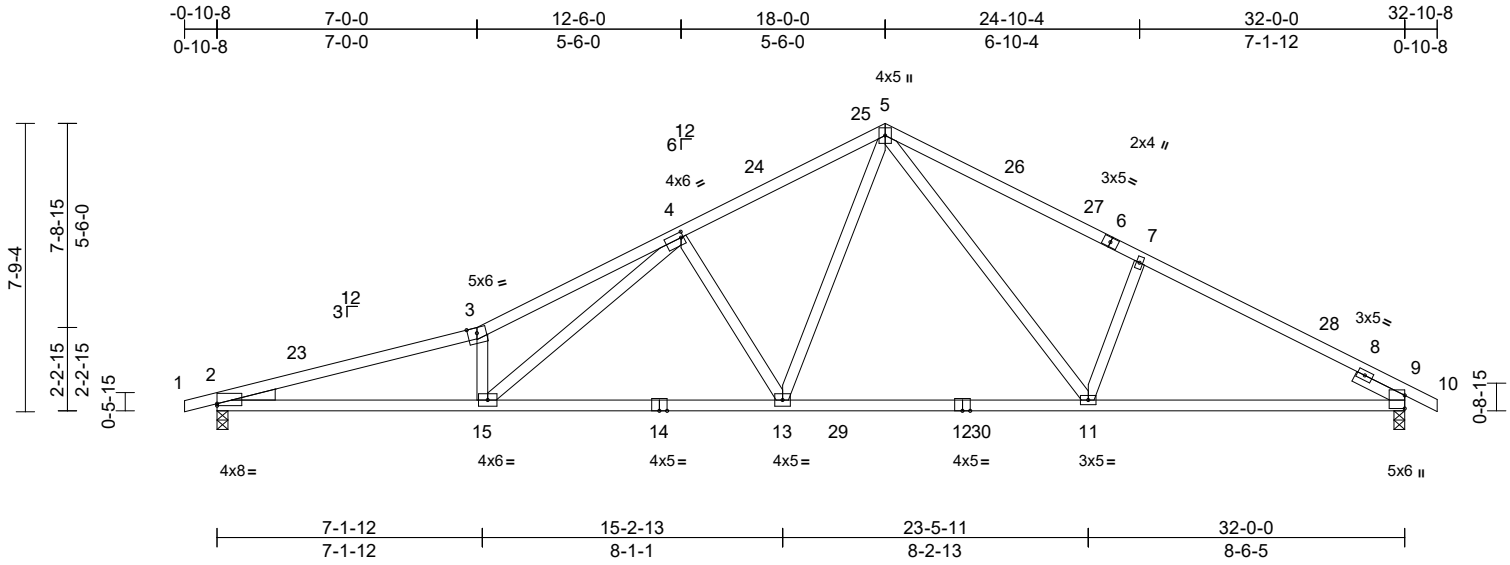
Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763041
24020067-01	B02	Roof Special	3	1	Job Reference (optional)	

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

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Page: 1

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Scale = 1:62.1									
Plate Offsets (X, Y): [2:Edge,0-0-10], [4:0-0-12,0-1-12]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.31 13-15	>999	240
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.59 13-15	>647	180
TCDL	10.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.10 9	n/a	n/a
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH					
BCDL	10.0								
									PLATES MT20
									GRIP 244/190
									Weight: 158 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 5-6:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E *Except* 14-12:2x4 SP No.1
WEBS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 -- 1-6-0
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=120 (LC 14)
Max Uplift 2=-158 (LC 14), 9=-126 (LC 15)
Max Grav 2=1440 (LC 5), 9=1437 (LC 3)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-4112/594, 3-4=-4335/701, 4-5=-2216/441, 5-7=-2187/458, 7-9=-2289/397, 9-10=0/23
BOT CHORD 2-15=-496/3938, 13-15=-262/2335, 11-13=-90/1494, 9-11=-230/1978
WEBS 3-15=-1150/282, 4-11=-282/2022, 4-13=-916/252, 5-13=-131/1205, 5-11=-147/732, 7-11=-429/227

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 2-3-14, Interior (1) 2-3-14 to 14-9-10, Exterior(2R) 14-9-10 to 21-2-6, Interior (1) 21-2-6 to 29-8-2, Exterior(2E) 29-8-2 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 9. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 22,2024

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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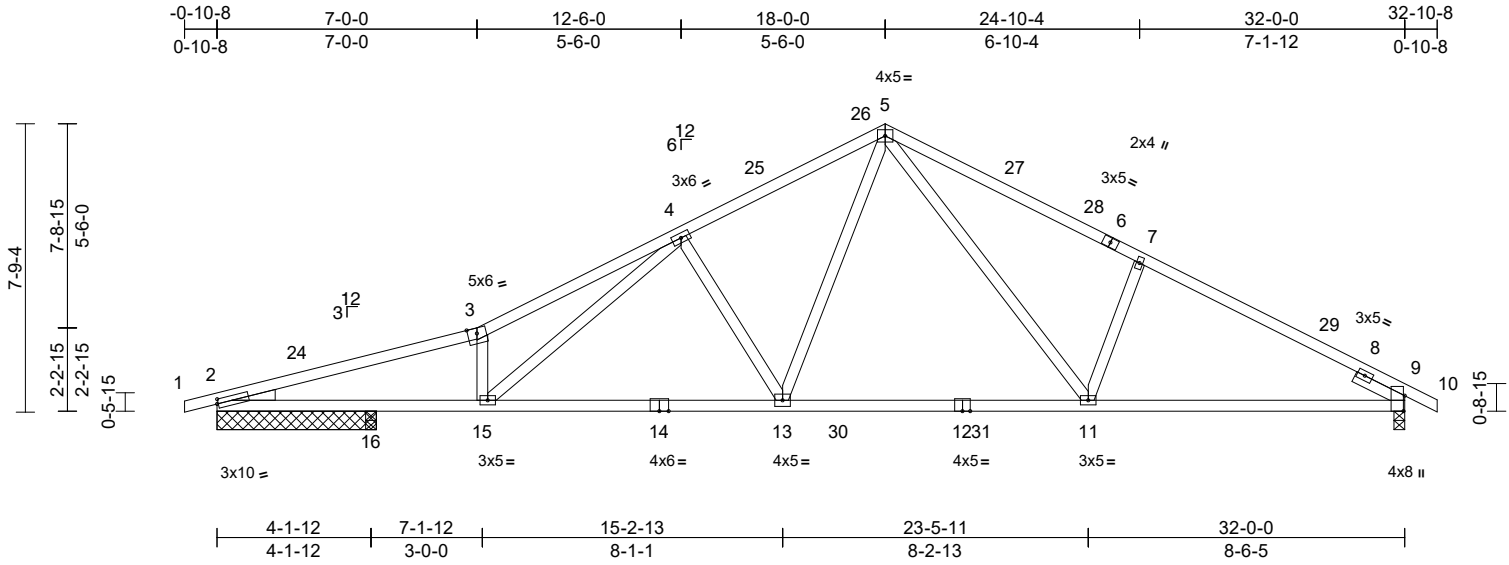
Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763042
24020067-01	B03	Roof Special	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Feb 21 08:29:33

Page: 1

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Scale = 1:62.1

Plate Offsets (X, Y): [2:0-0-6,0-1-8], [9:0-5-0,Edge]																			
Loading		(psf)	Spacing		2-0-0		CSI		DEFL		in	(loc)	l/defl	L/d	PLATES	GRIP			
TCLL (roof)		20.0	Plate Grip DOL		1.15		TC		0.92		Vert(LL)		-0.33	13-15	>999	240	MT20	244/190	
Snow (Pf)		20.0	Lumber DOL		1.15		BC		0.93		Vert(CT)		-0.65	13-15	>518	180			
TCDL		10.0	Rep Stress Incr		YES		WB		0.51		Horz(CT)		0.09	9	n/a	n/a			
BCLL		0.0*	Code		IRC2018/TPI2014		Matrix-MSH												
BCDL		10.0																	
															Weight: 158 lb			FT = 20%	

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 3-5,6-10:2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E *Except* 14-12:2x4 SP No.1
WEBS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 13-15.

REACTIONS
(size) 2=4-3-8, 9=0-3-8, 16=0-3-8
Max Horiz 2=120 (LC 14)
Max Uplift 2=-118 (LC 14), 9=-127 (LC 15), 16=46 (LC 14)
Max Grav 2=1036 (LC 5), 9=1378 (LC 3), 16=465 (LC 5)

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-3221/482, 3-4=-3380/581, 4-5=-2039/419, 5-7=-2071/442, 7-9=-2166/381, 9-10=0/23
BOT CHORD 2-16=-387/3067, 15-16=-387/3067, 13-15=-230/2077, 11-13=-76/1384, 9-11=-216/1874
WEBS 3-15=-916/252, 4-15=-183/1236, 4-13=-741/229, 5-13=-113/1065, 5-11=-147/731, 7-11=-433/226

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) -0-10-8 to 2-3-14, Interior (1) 2-3-14 to 14-9-10, Exterior(2R) 14-9-10 to 21-2-6, Interior (1) 21-2-6 to 29-8-2, Exterior(2E) 29-8-2 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- One RT8A MiTek 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
- H10A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16. This connection is for uplift only and does not consider lateral forces.

11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
LOAD CASE(S) Standard



February 22,2024

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

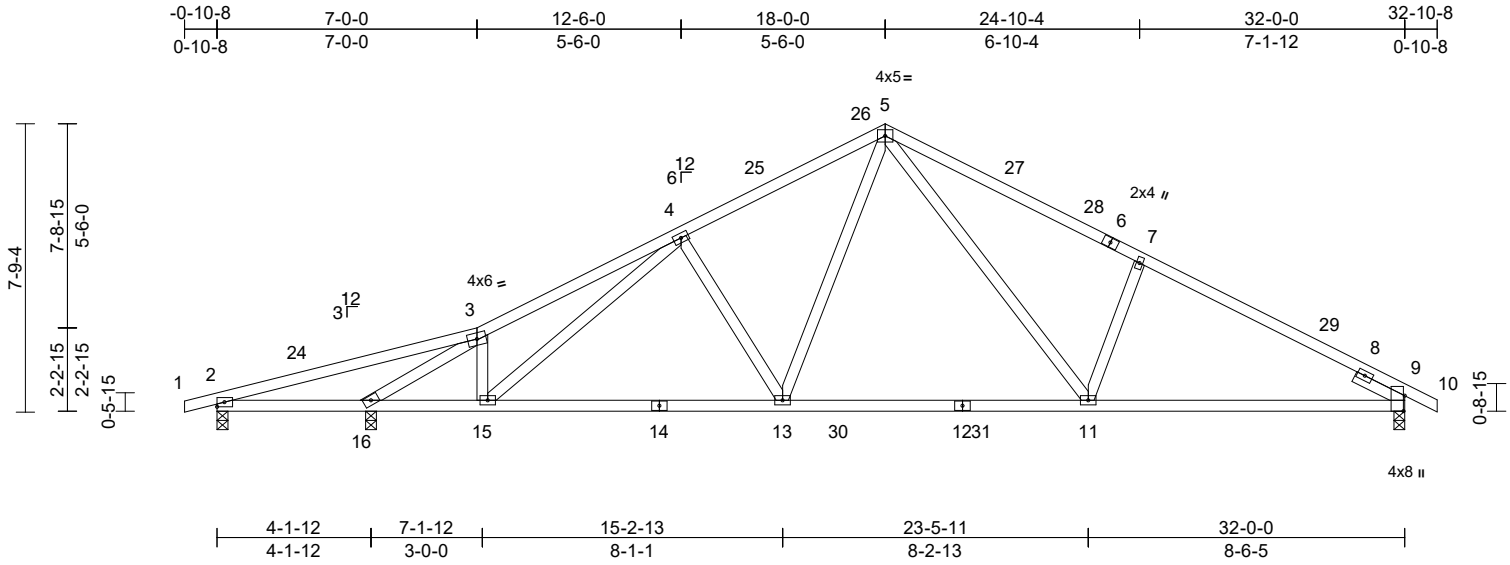
Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763043
24020067-01	B04	Roof Special	2	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Feb 21 08:29:34

Page: 1

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Scale = 1:62.1

Plate Offsets (X, Y): [9:0-5-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.22	11-13	>999	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.36	11-13	>945	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.07	9	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 162 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 5-6:2x4 SP No.1
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 SLIDER Right 2x4 SP No.3 -- 1-6-0

BRACING

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

REACTIONS

(size) 2=0-3-8, 9=0-3-8, 16=0-3-8
 Max Horiz 2=120 (LC 14)
 Max Uplift 2=-123 (LC 10), 9=-126 (LC 15), 16=-130 (LC 14)
 Max Grav 2=259 (LC 39), 9=1256 (LC 6), 16=1571 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/17, 2-3=-102/622, 3-4=-1810/381, 4-5=-1617/364, 5-7=-1849/412, 7-9=-1942/350, 9-10=0/23
 BOT CHORD 2-16=-577/97, 15-16=-224/1564, 13-15=-160/1536, 11-13=-44/1136, 9-11=-189/1677
 WEBS 3-16=-2433/318, 3-15=-134/185, 4-15=-109/291, 4-13=-441/205, 5-13=-84/707, 5-11=-149/766, 7-11=-441/228

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 2-3-14, Interior (1) 2-3-14 to 14-9-10, Exterior(2R) 14-9-10 to 21-2-6, Interior (1) 21-2-6 to 29-8-2, Exterior(2E) 29-8-2 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) All plates are 3x5 MT20 unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 9, and 16. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 22,2024

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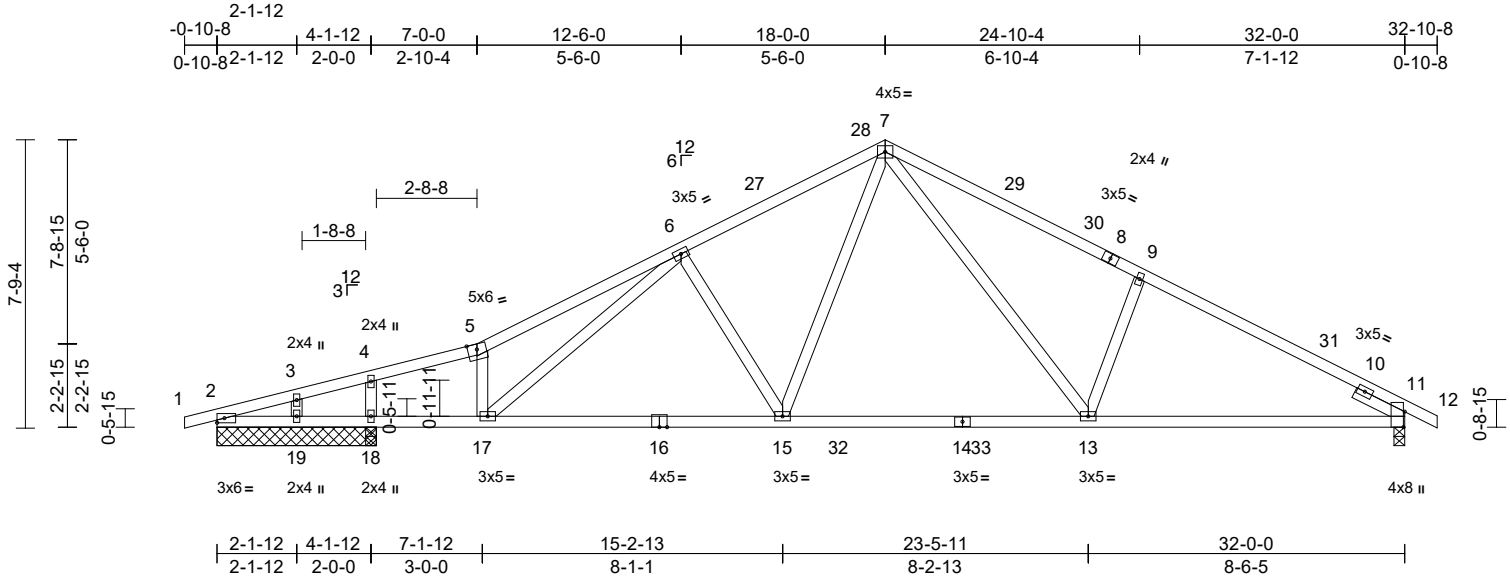
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763044
24020067-01	B05	Roof Special	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Feb 21 08:29:34
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Page: 1



Scale = 1:62.1

Plate Offsets (X, Y): [11:0-5-0,Edge]

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	1.00	Vert(LL)	-0.27	15-17	>999	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.54	15-17	>623	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.07	11	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 159 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.1 *Except* 5-7-8-12:2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E *Except* 16-14:2x4 SP No.1
WEBS 2x4 SP No.3
SLIDER Right 2x4 SP No.3 -- 1-6-0

BRACING

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

REACTIONS

(size) 2=4-3-8, 11=0-3-8, 18=4-3-8, 19=4-3-8, 20=4-3-8
Max Horiz 2=116 (LC 14), 20=116 (LC 14)
Max Uplift 2=77 (LC 14), 11=121 (LC 15), 18=135 (LC 14), 19=842 (LC 36), 20=77 (LC 14)
Max Grav 2=1081 (LC 5), 11=1291 (LC 6), 18=1230 (LC 5), 19=44 (LC 14), 20=1081 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-2473/292, 3-4=-2371/299, 4-5=-2488/334, 5-6=-2615/411, 6-7=-1832/373, 7-9=-1937/409, 9-11=-2027/349, 11-12=0/23
BOT CHORD 2-19=-234/2354, 18-19=-234/2354, 17-18=-234/2354, 15-17=-181/1823, 13-15=-54/1253, 11-13=-193/1755
WEBS 5-17=-556/158, 6-17=-55/687, 6-15=-613/201, 7-15=-87/921, 7-13=-144/721, 9-13=-428/221, 4-18=-580/111, 3-19=0/364

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 2-1-12, Interior (1) 2-1-12 to 14-9-10, Exterior(2R) 14-9-10 to 21-2-6, Interior (1) 21-2-6 to 29-8-2, Exterior(2E) 29-8-2 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 842 lb uplift at joint 19.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at joint 11. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 22,2024

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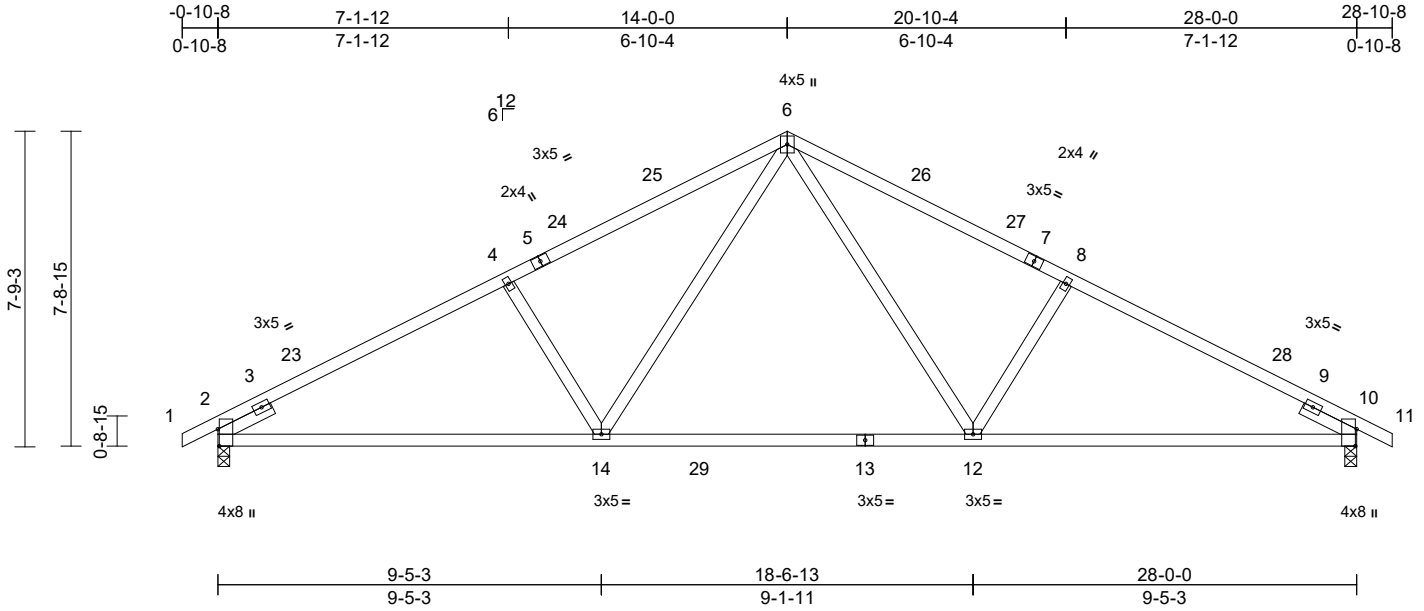
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763045
24020067-01	A03	Common	5	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:56.6

Plate Offsets (X, Y): [2:0-5-0,Edge], [10:0-5-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.29	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.45	12-14	>744	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.07	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 134 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1 *Except* 1-5,7-11:2x4 SP No.2
BOT CHORD 2x4 SP No.1
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.
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=-118 (LC 15)
Max Uplift 2=-124 (LC 14), 10=-124 (LC 15)
Max Grav 2=1276 (LC 5), 10=1275 (LC 6)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-4=-1972/248, 4-6=-1813/273,
6-8=-1812/273, 8-10=-1971/248, 10-11=0/23
BOT CHORD 2-14=-236/1705, 12-14=-29/1160,
10-12=-139/1704
WEBS 6-12=-101/753, 8-12=-437/224,
6-14=-101/755, 4-14=-437/224

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-0-0, Exterior(2R) 11-0-0 to 17-0-0, Interior (1) 17-0-0 to 25-10-8, Exterior(2E) 25-10-8 to 28-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 22,2024

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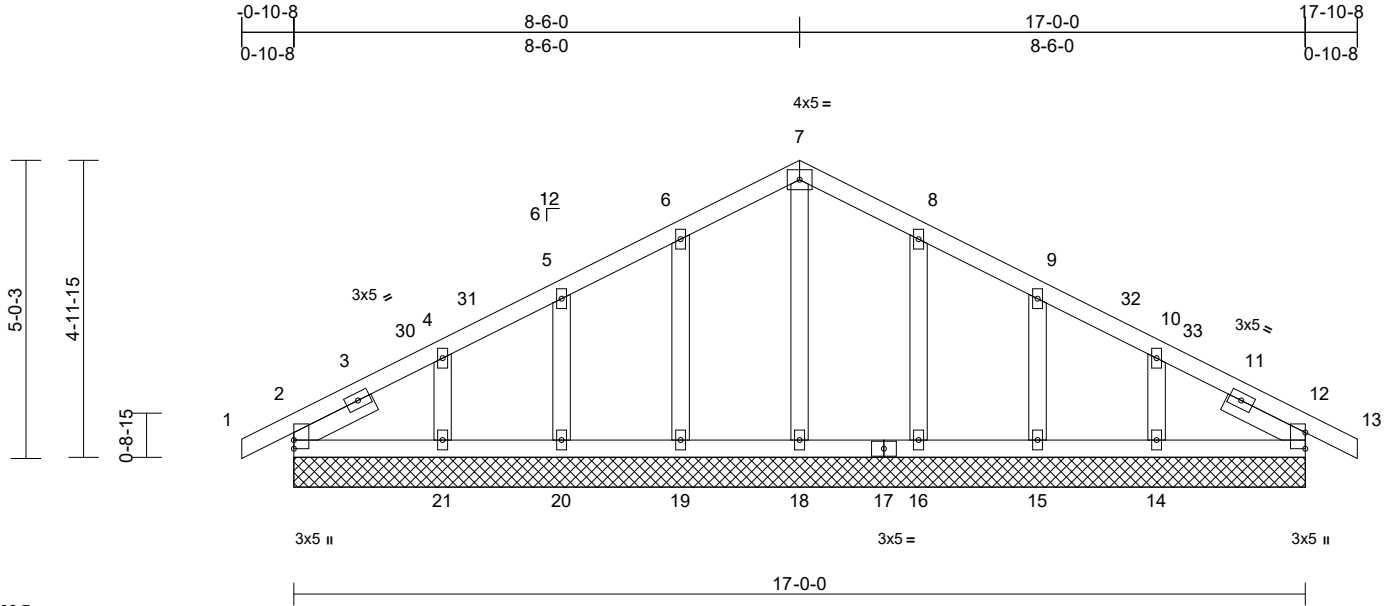
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763046
24020067-01	C02	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Feb 21 08:29:37
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Page: 1



Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 90 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)
2=17-0-0, 12=17-0-0, 14=17-0-0, 15=17-0-0, 16=17-0-0, 18=17-0-0, 19=17-0-0, 20=17-0-0, 21=17-0-0, 22=17-0-0, 26=17-0-0
Max Horiz 2=72 (LC 14), 22=72 (LC 14)
Max Uplift 2=-20 (LC 15), 12=-8 (LC 15), 14=-66 (LC 15), 15=-36 (LC 15), 16=-46 (LC 15), 19=-47 (LC 14), 20=-33 (LC 14), 21=-72 (LC 14), 22=-20 (LC 15), 26=-8 (LC 15)
Max Grav 2=163 (LC 1), 12=163 (LC 1), 14=195 (LC 22), 15=213 (LC 22), 16=239 (LC 22), 18=126 (LC 27), 19=239 (LC 21), 20=213 (LC 21), 21=195 (LC 21), 22=163 (LC 1), 26=163 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-4=-61/46, 4-5=-65/74, 5-6=-70/122, 6-7=-77/173, 7-8=-77/173, 8-9=-70/122, 9-10=-63/74, 10-12=-45/19, 12-13=0/23
BOT CHORD 2-21=0/60, 20-21=0/60, 19-20=0/60, 18-19=0/60, 16-18=0/60, 15-16=0/60, 14-15=0/60, 12-14=0/60
WEBS 7-18=-87/7, 6-19=-200/92, 5-20=-179/84, 4-21=-143/116, 8-16=-200/92, 9-15=-179/84, 10-14=-143/116

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 Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-6-0, Corner(3R) 5-6-0 to 11-6-0, Exterior(2N) 11-6-0 to 14-10-8, Corner(3E) 14-10-8 to 17-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 2, 8 lb uplift at joint 12, 47 lb uplift at joint 19, 33 lb uplift at joint 20, 72 lb uplift at joint 21, 46 lb uplift at joint 16, 36 lb uplift at joint 15, 66 lb uplift at joint 14, 20 lb uplift at joint 2 and 8 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 22, 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.sbcacompnents.com)

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818 Soundside Road
Edenton, NC 27932

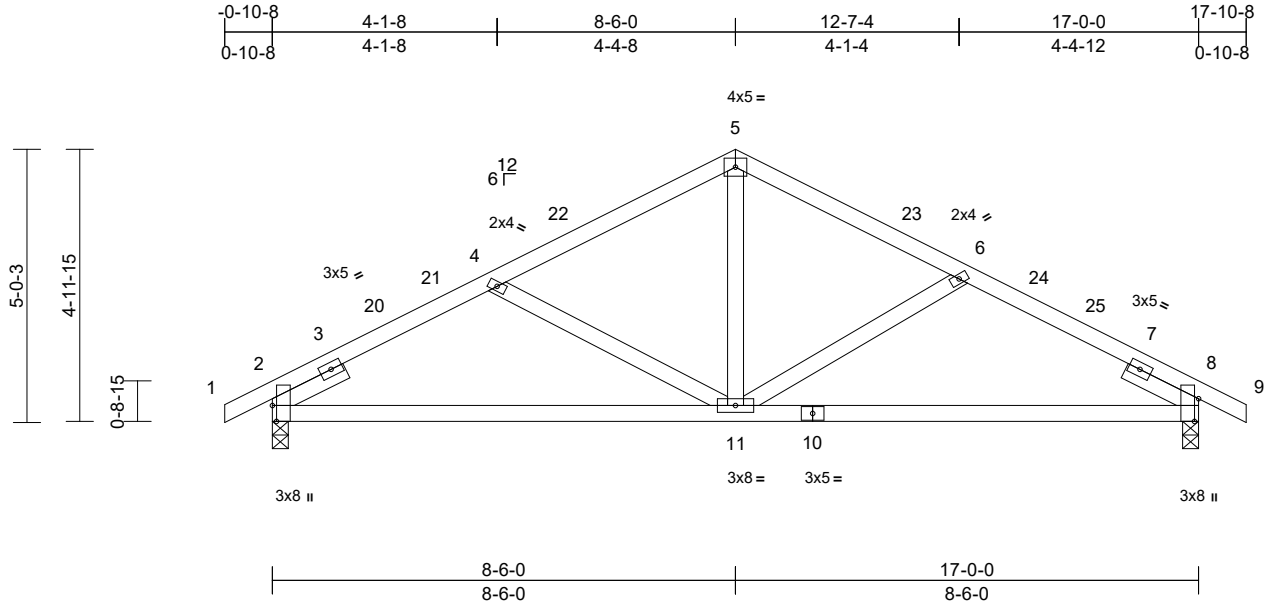
Job	Truss	Truss Type	Qty	Ply	281 Church-Roof-Nicolas GLH	163763047
24020067-01	C01	Common	2	1	Job Reference (optional)	

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

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Page: 1

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Scale = 1:42.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.07	11-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.14	11-18	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 82 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 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 5-0-6 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	2=0-3-8, 8=0-3-8
Max Horiz	2=-74 (LC 15)
Max Uplift	2=-81 (LC 14), 8=-81 (LC 15)
Max Grav	2=798 (LC 21), 8=798 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/23, 2-4=-1128/278, 4-5=-833/218, 5-6=-826/220, 6-8=-1114/274, 8-9=0/23
BOT CHORD	2-11=-161/970, 8-11=-154/954
WEBS	5-11=-33/432, 6-11=-348/143, 4-11=-355/147

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 5-6-0, Exterior(2R) 5-6-0 to 11-6-0, Interior (1) 11-6-0 to 14-10-8, Exterior(2E) 14-10-8 to 17-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. 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



February 22,2024

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

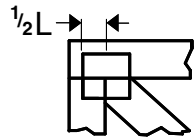
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacompnents.com)

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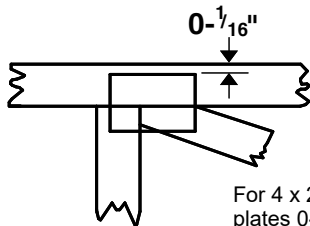
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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



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

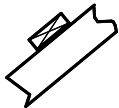
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

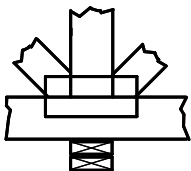
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

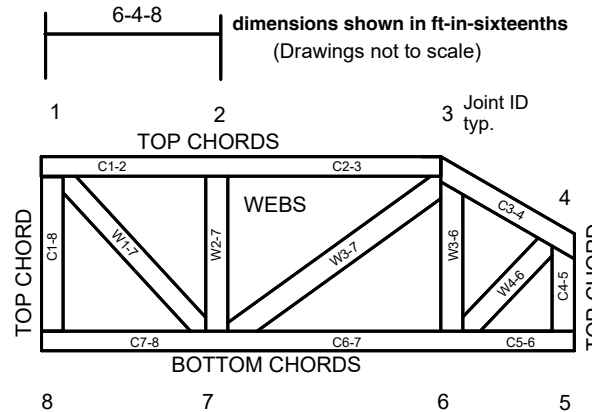


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.

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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.