



Harnett COUNTY NORTH CAROLINA

Initial Application Date: 1/15/19

Application # SED1901-0019

CU#

COUNTY OF HARNETT RESIDENTIAL LAND USE APPLICATION
Central Permitting 108 E. Front Street, Lillington, NC 27546 Phone: (910) 893-7525 ext:2 Fax: (910) 893-2793 www.harnett.org/permits

A RECORDED SURVEY MAP, RECORDED DEED (OR OFFER TO PURCHASE) & SITE PLAN ARE REQUIRED WHEN SUBMITTING A LAND USE APPLICATION

LANDOWNER: H & H Constructors of Fayetteville, LLC. Mailing Address: 2919 Breezewood Avenue, Ste. 400
City: Fayetteville State: NC Zip: 28303 Contact No: 910-486-4864 x450 Email: stacysimmons@hhhomes.com

APPLICANT: Same As Above Mailing Address:

City: State: Zip: Contact No: Email:
*Please fill out applicant information if different than landowner

CONTACT NAME APPLYING IN OFFICE: Stacy Simmons Phone # 910-486-4864 x450

ADDRESS: 145 Hopeland Drive PIN: 0507-43-4832

DEED OR OTP: 3571:0423

PROPOSED USE:

- SFD: (Size 42x52) # Bedrooms: 4 # Baths: 2.5 Basement (w/wo bath): Garage: Deck: Crawl Space: Slab: Monolithic Slab:
Mod: (Size x) # Bedrooms: # Baths Basement (w/wo bath) Garage: Site Built Deck: On Frame Off Frame
Manufactured Home: SW DW TW (Size x) # Bedrooms: Garage: (site built?) Deck: (site built?)
Duplex: (Size x) No. Buildings: No. Bedrooms Per Unit:
Home Occupation: # Rooms: Use: Hours of Operation: #Employees:
Addition/Accessory/Other: (Size x) Use: Closets in addition? () yes () no

Water Supply: County Existing Well New Well (# of dwellings using well) *Must have operable water before final (Need to Complete New Well Application at the same time as New Tank)

Sewage Supply: New Septic Tank Expansion Relocation Existing Septic Tank County Sewer
(Complete Environmental Health Checklist on other side of application if Septic)

Does owner of this tract of land, own land that contains a manufactured home within five hundred feet (500') of tract listed above? () yes () no
Does the property contain any easements whether underground or overhead () yes () no

Structures (existing or proposed): Single family dwellings: Manufactured Homes: Other (specify):

If permits are granted I agree to conform to all ordinances and laws of the State of North Carolina regulating such work and the specifications of plans submitted. I hereby state that foregoing statements are accurate and correct to the best of my knowledge. Permit subject to revocation if false information is provided.

Signature of Owner or Owner's Agent Date 1/15/19

It is the owner/applicants responsibility to provide the county with any applicable information about the subject property, including but not limited to: boundary information, house location, underground or overhead easements, etc. The county or its employees are not responsible for any incorrect or missing information that is contained within these applications.
This application expires 6 months from the initial date if permits have not been issued

APPLICATION CONTINUES ON BACK

strong roots • new growth

strong roots • new growth

****This application expires 6 months from the initial date if permits have not been issued****

This application to be filled out when applying for a septic system inspection.

County Health Department Application for Improvement Permit and/or Authorization to Construct

IF THE INFORMATION IN THIS APPLICATION IS FALSIFIED, CHANGED, OR THE SITE IS ALTERED, THEN THE IMPROVEMENT PERMIT OR AUTHORIZATION TO CONSTRUCT SHALL BECOME INVALID. The permit is valid for either 60 months or without expiration depending upon documentation submitted. (Complete site plan = 60 months; Complete plat = without expiration)

Environmental Health New Septic System

- **All property irons must be made visible.** Place "pink property flags" on each corner iron of lot. All property lines must be clearly flagged approximately every 50 feet between corners.
- Place "orange house corner flags" at each corner of the proposed structure. Also flag driveways, garages, decks, out buildings, swimming pools, etc. Place flags per site plan developed at/for Central Permitting.
- Place orange Environmental Health card in location that is easily viewed from road to assist in locating property.
- If property is thickly wooded, Environmental Health requires that you clean out the **undergrowth** to allow the soil evaluation to be performed. Inspectors should be able to walk freely around site. **Do not grade property.**
- **All lots to be addressed within 10 business days after confirmation. \$25.00 return trip fee may be incurred for failure to uncover outlet lid, mark house corners and property lines, etc. once lot confirmed ready.**

Environmental Health Existing Tank Inspections

- Follow above instructions for placing flags and card on property.
- Prepare for inspection by removing soil over **outlet end** of tank as diagram indicates, and lift lid straight up (if possible) and then **put lid back in place.** (Unless inspection is for a septic tank in a mobile home park)
- **DO NOT LEAVE LIDS OFF OF SEPTIC TANK**

"MORE INFORMATION MAY BE REQUIRED TO COMPLETE ANY INSPECTION"

SEPTIC

If applying for authorization to construct please indicate desired system type(s): can be ranked in order of preference, must choose one.

- Accepted Innovative Conventional Any
 Alternative Other _____

The applicant shall notify the local health department upon submittal of this application if any of the following apply to the property in question. If the answer is "yes", applicant **MUST ATTACH SUPPORTING DOCUMENTATION:**

- YES NO Does the site contain any Jurisdictional Wetlands?
 YES NO Do you plan to have an irrigation system now or in the future?
 YES NO Does or will the building contain any drains? Please explain. _____
 YES NO Are there any existing wells, springs, waterlines or Wastewater Systems on this property?
 YES NO Is any wastewater going to be generated on the site other than domestic sewage?
 YES NO Is the site subject to approval by any other Public Agency?
 YES NO Are there any Easements or Right of Ways on this property?
 YES NO Does the site contain any existing water, cable, phone or underground electric lines?

If yes please call No Cuts at 800-632-4949 to locate the lines. This is a free service.

I Have Read This Application And Certify That The Information Provided Herein Is True, Complete And Correct. Authorized County And State Officials Are Granted Right Of Entry To Conduct Necessary Inspections To Determine Compliance With Applicable Laws And Rules. I Understand That I Am Solely Responsible For The Proper Identification And Labeling Of All Property Lines And Corners And Making The Site Accessible So That A Complete Site Evaluation Can Be Performed.



Application # _____

Harnett County Central Permitting

PO Box 65 Lillington, NC 27546

910-893-7525 Fax 910-893-2793 www.harnett.org/permits

* Each section below to be filled out by whomever performing work. Must be owner or licensed contractor. Address, company name & phone must match information on license!

Application for Residential Building and Trades Permit

Owner's Name: H&H Constructors of Fayetteville, LLC. Date: 1/18/19
Site Address: 145 Hopland Drive Phone: 910-486-4864
Subdivision: Oakmont Lot: 204
Description of Proposed Work: New Single Family Residential

General Contractor Information

H&H Constructors of Fayetteville, LLC. 910-486-4864
Building Contractor's Company Name Telephone
2919 Breezewood Ave. Ste. 400 Fayetteville, NC 28303 Stacysimmons@hhhomes.com
Address Email Address
74158
License #

Electrical Contractor Information

Description of Work Single Family Electric Service Size: 200 Amps T-Pole: Yes No
JM Pope Electric, Inc. 919-776-5144
Electrical Contractor's Company Name Telephone
409 Chatham Street Sanford, NC 27330 Electricpope@windstream.net
Address Email Address
21326
License #

Mechanical/HVAC Contractor Information

Description of Work Single Family HVAC
Carolina comfort Air, Inc. 910-891-1239
Mechanical Contractor's Company Name Telephone
703 N. Clinton Ave. Dunn, NC 28334 Carolinacomfortair@yahoo.com
Address Email Address
29077 H-3-1.
License #

Plumbing Contractor Information

Description of Work Single Family Plumbing # Baths 2.5
Dell Haire Plumbing 910-429-9939
Plumbing Contractor's Company Name Telephone
PO Box 65048/ 620 Gillespie St. Fay. NC 28306 dellhaireplumbing@hotmail.com
Address Email Address
32886 P-1
License #

Insulation Contractor Information

Tricity Insulation Inc. 418 Person St. Fay. NC 28301 910-486-8855
Insulation Contractor's Company Name & Address Telephone

***NOTE: General Contractor / owner must fill out and sign the second page of this application.**



I hereby certify that I have the authority to make necessary application, that the application is correct and that the construction will conform to the regulations in the Building, Electrical, Plumbing and Mechanical codes, and the Harnett County Zoning Ordinance. I state the information on the above contractors is correct as known to me and that by signing below I have obtained all subcontractors permission to obtain these permits and if any changes occur including listed contractors, site plan, number of bedrooms, building and trade plans, Environmental Health permit changes or proposed use changes, I certify it is my responsibility to notify the Harnett County Central Permitting Department of any and all changes.

EXPIRED PERMIT FEES - 6 Months to 2 years permit re-issue fee is \$150.00. After 2 years re-issue fee is as per current fee schedule.

Hay Sims
Signature of Owner/Contractor/Officer(s) of Corporation

1/15/19
Date

Affidavit for Worker's Compensation N.C.G.S. 87-14

The undersigned applicant being the:

General Contractor Owner Officer/Agent of the Contractor or Owner

Do hereby confirm under penalties of perjury that the person(s), firm(s) or corporation(s) performing the work set forth in the permit:

Has three (3) or more employees and has obtained workers' compensation insurance to cover them.

Has one (1) or more subcontractors(s) and has obtained workers' compensation insurance to cover them.

Has one (1) or more subcontractors(s) who has their own policy of workers' compensation insurance covering themselves.

Has no more than two (2) employees and no subcontractors.

While working on the project for which this permit is sought it is understood that the Central Permitting Department issuing the permit may require certificates of coverage of worker's compensation insurance prior to issuance of the permit and at any time during the permitted work from any person, firm or corporation carrying out the work.

Sign w/Title: Hay Sims/Permit Coordinator Date: 1/15/19

DO NOT REMOVE!

Details: Appointment of Lien Agent

Entry #: 977121

Filed on: 01/15/2019

Initially filed by: meaganbradshaw

Designated Lien Agent

First American Title Insurance Company

Online: www.liensnc.com

Address: 19 W. Hargett St., Suite 507 /

Raleigh, NC 27601

Phone: 888-690-7384

Fax: 913-489-5231

Email: support@liensnc.com

Project Property

OKM000204 Lot 204 Oakmont
145 Hopeland Drive
Lillington, NC 27546
Harnett County

Print & Post



Contractors:

Please post this notice on the job site.

Suppliers and Subcontractors:

Scan this image with your smart phone to view this filing. You can then file a Notice to Lien Agent for this project.

Owner Information

H & H Constructors of Fayetteville, LLC
2919 Breezewood Avenue Suite 400
Fayetteville, NC 28303
United States
Email: stacysimmons@hthomes.com
Phone: 910-486-4864

Property Type

1-2 Family Dwelling

Date of First Furnishing

12/27/2018

[View Comments \(0\)](#)

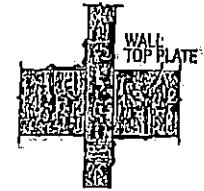
Technical Support Hotline: (888) 690-7384

Truss/Rafter to Wood Double Top Plates

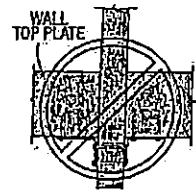


Model No.	Qty. Req'd	Fasteners		DF/SP Allowable Loads				SPF Allowable Loads			
		To Rafters	To Plates	Uplift		Parallel to Plate (F ₁) (133/160)	Perp. to Plate (F ₂) (133/160)	Uplift		Parallel to Plate (F ₁) (133/160)	Perp. to Plate (F ₂) (133/160)
				(133)	(160)			(133)	(160)		
H2.5	1	5-8d	5-8d	415	415	150	150	365	365	130	130
H5A	1	3-8d	3-8d	350	420	115	180	245	245	100	120
HGA10	1	4-SDS $\frac{1}{4}$ x1 $\frac{1}{2}$	4-SDS $\frac{1}{4}$ x3	435	435	1165	940	375	375	870	815
H5	1	4-8d	4-8d	455	465	115	200	265	265	100	170
H1	1	6-8dx1 $\frac{1}{2}$	4-8d	480	585	485	165	400	400	415	140
H2.5A	1	5-8d	5-8d	600	600	110	110	520	535	110	110
LTS12	1	6-10dx1 $\frac{1}{2}$	6-10dx1 $\frac{1}{2}$	720	720	75	125	620	620	75	125
H8	1	5-10dx1 $\frac{1}{2}$	5-10dx1 $\frac{1}{2}$	620	745	—	—	630	665	—	—
H10-2	1	6-10d	6-10d	760	760	455	395	655	655	330	340
H2.5	2	10-8d	10-8d	830	830	300	300	730	730	260	260
H5	2	8-8d	8-8d	910	930	230	400	530	530	200	340
H10	1	8-8dx1 $\frac{1}{2}$	8-8dx1 $\frac{1}{2}$	905	990	585	525	780	850	605	450
MTS12	1	7-10dx1 $\frac{1}{2}$	7-10dx1 $\frac{1}{2}$	840	1000	75	125	730	860	75	125
H1	2	12-8dx1 $\frac{1}{2}$	8-8d	980	1170	970	330	800	800	830	280
H2.5A	2	10-8d	10-8d	1200	1200	220	220	1040	1070	220	220
LTS12	2	12-10dx1 $\frac{1}{2}$	12-10dx1 $\frac{1}{2}$	1440	1440	150	250	1240	1240	150	250
HTS20	1	12-10dx1 $\frac{1}{2}$	12-10dx1 $\frac{1}{2}$	1450	1450	75	125	1245	1245	75	125
H16S	1	2-10dx1 $\frac{1}{2}$	10-10dx1 $\frac{1}{2}$	1470	1470	—	—	1265	1265	—	—
H16	1	2-10dx1 $\frac{1}{2}$	10-10dx1 $\frac{1}{2}$	1470	1470	—	—	1265	1265	—	—
H10	2	16-8dx1 $\frac{1}{2}$	16-8dx1 $\frac{1}{2}$	1610	1980	1170	1050	1550	1700	1010	900
MTS12	2	14-10dx1 $\frac{1}{2}$	14-10dx1 $\frac{1}{2}$	1680	2000	150	250	1460	1720	150	250

Hurricane Tie Installations to Achieve Twice the Load (Top View)

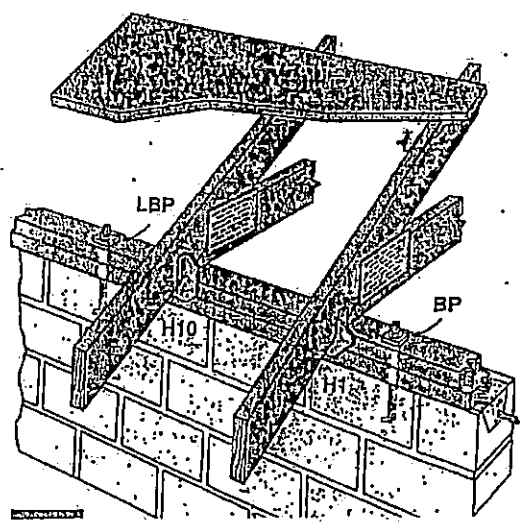
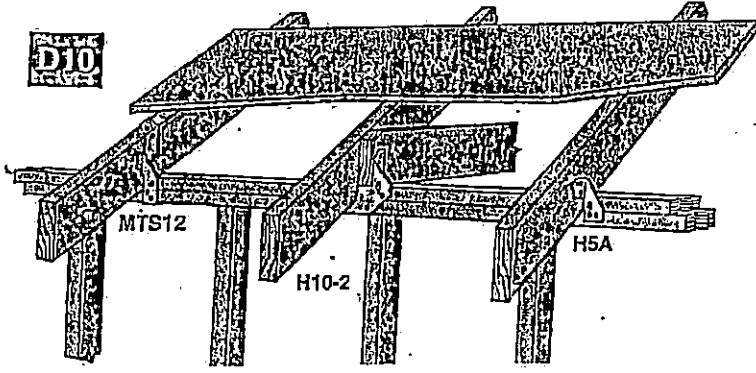
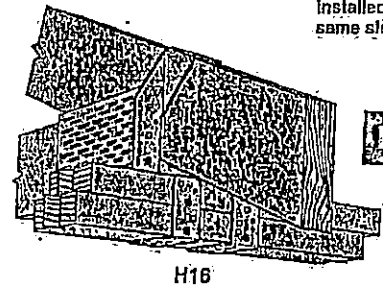
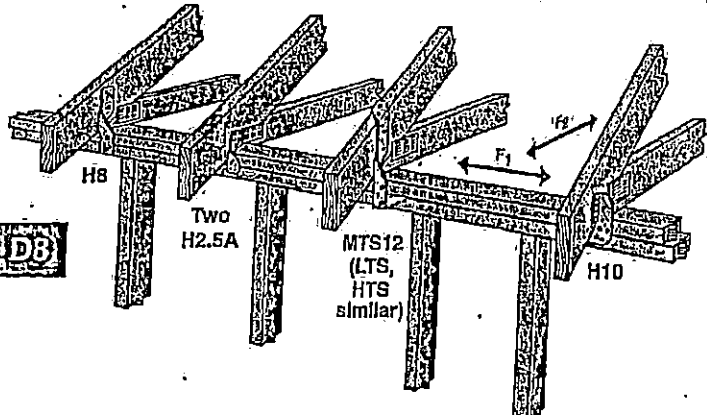


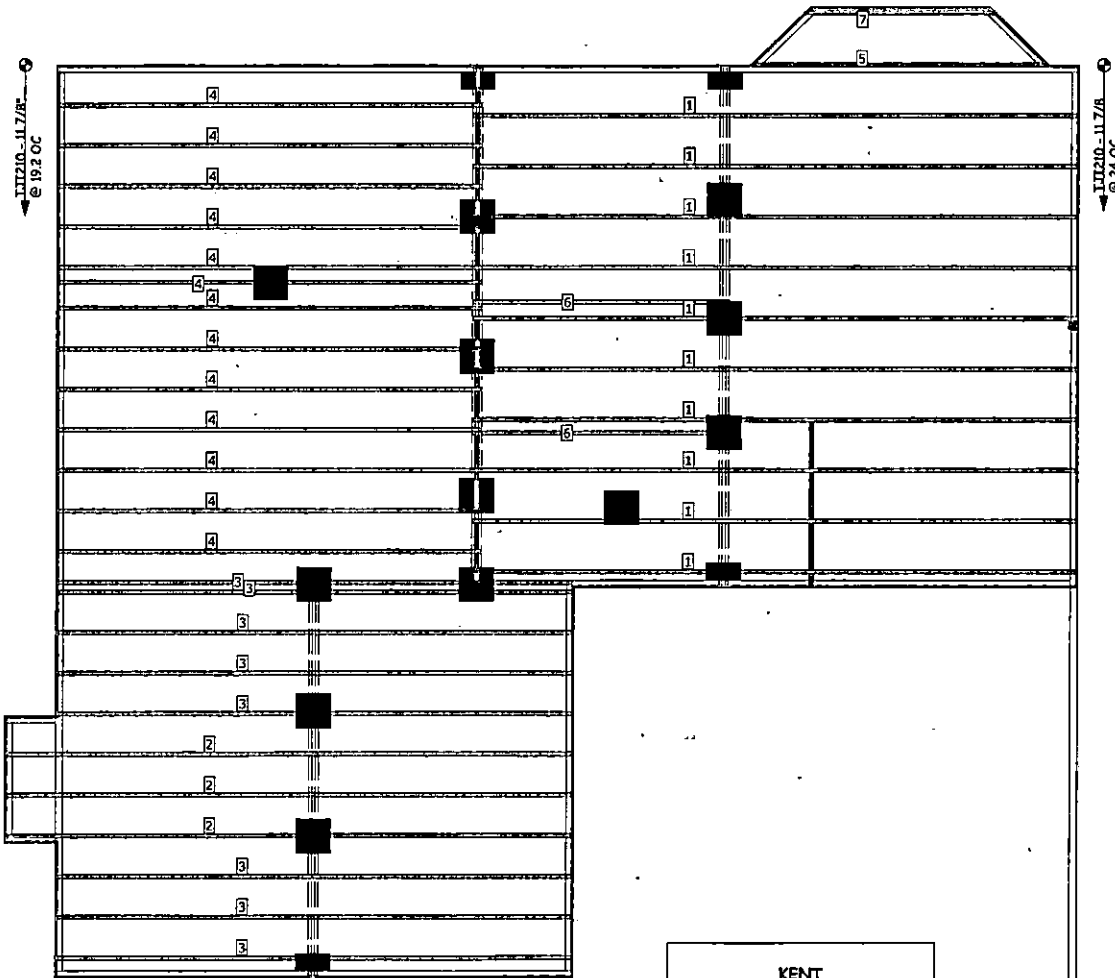
Install diagonally across from each other for minimum 2x truss.



Nailing into both sides of a single ply 2x truss may cause the wood to split. A minimum rafter thickness of 2 $\frac{1}{2}$ " must be used when connectors are installed on the same side.

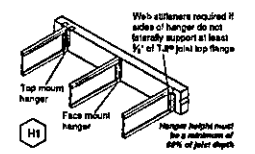
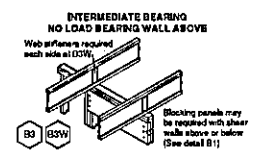
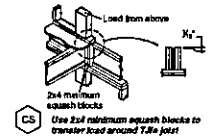
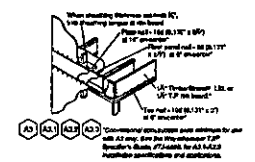
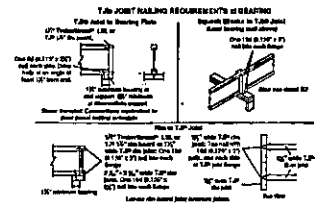
1. "—" in the tables indicates that the product has not been tested in the particular load direction listed.
2. For connections to single top plates, see page 12.
3. Fasten multiple members together to act as a single unit.





Pier per plan
(3) 2x10 girder provided by others

KENT
1st FLOOR I-JOIST LAYOUT



www.BF.com
1133 Robeson St.
Fayetteville, NC 28405
V (910) 485-1111
F (910) 485-6475
601 CENTURY GORCE
CONWAY, SC 29630
V 843.254.6294
F 843.602.9077
5415 MARKET STREET
WILMINGTON, NC 28405
V 910.708.0028
F 910.708.0063
2851 N. CANTON HIGHWAY
ROCKLAND, SC 29688
V 843.967.2910
F 843.967.2533

GENERAL NOTES
1. VERIFY ALL MATERIALS AND METHODS OF CONSTRUCTION WITH LOCAL BUILDING DEPARTMENT. LOCAL CODES MAY VARY.
2. ALL MATERIALS SHALL BE APPROVED BY LOCAL BUILDING DEPARTMENT.
3. ALL JOIST CONNECTIONS SHALL BE APPROVED BY LOCAL BUILDING DEPARTMENT.
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9. ALL JOIST CONNECTIONS SHALL BE APPROVED BY LOCAL BUILDING DEPARTMENT.
10. ALL JOIST CONNECTIONS SHALL BE APPROVED BY LOCAL BUILDING DEPARTMENT.

H & H HOMES	
PROJECT:	KENT - MASTER
MODEL:	FIRST FLOOR EMP. DIAGRAM / JOIST PLACEMENT PLAN
OWNER:	Builders FirstSource, Coastal SC Markets
DATE:	04/14/11
SCALE:	1/4" = 1'
DESIGNER:	JWG
CHECKER:	DKR, JWG, JVB

MINIMUM DESIGN DATA	
LINE LOAD 69 PSF	
DEAD LOAD 15 PSF	
TOTAL LOAD 84 PSF	
STRENGTH DURATION = 10%	
DEFLECTION CRITERIA	
LOAD (LIVE)	
FRAMER NOTE #1	
SOLID BLOCK POST LOADS WITH 2x4 BLOCKING BLOCKS FROM ABOVE TO BEARING PLATE BELOW. (ALL EXTERIOR DOOR HEADER JACKS)	
APPROVED BY:	JWG
DATE:	04/14/11

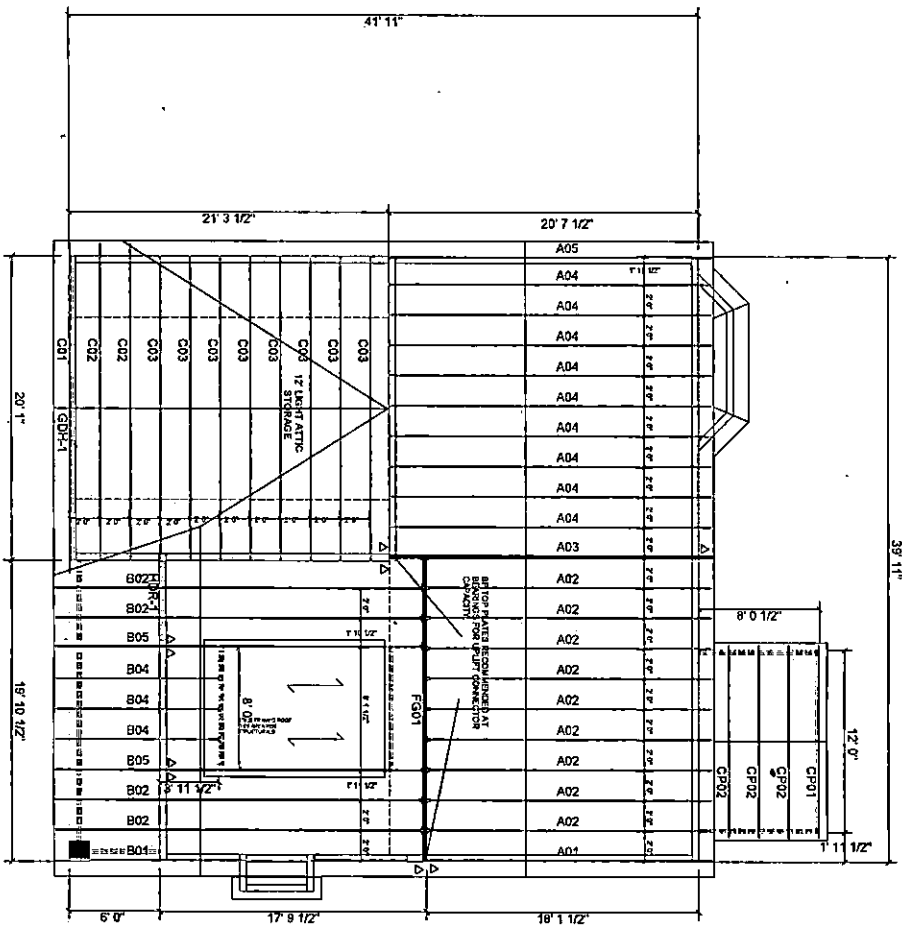
WARNING
Read all safety instructions carefully.
Use proper tie-off technique.
Use proper fall protection.
Use proper ladder safety.
Use proper work practices.
Use proper equipment.
Use proper materials.
Use proper methods.
Use proper tools.
Use proper techniques.
Use proper procedures.
Use proper protocols.
Use proper standards.
Use proper guidelines.
Use proper best practices.
Use proper industry standards.
Use proper regulatory requirements.
Use proper local codes.
Use proper building codes.
Use proper engineering standards.
Use proper safety standards.
Use proper health and safety standards.
Use proper environmental standards.
Use proper quality standards.
Use proper performance standards.
Use proper efficiency standards.
Use proper productivity standards.
Use proper cost standards.
Use proper value standards.
Use proper customer standards.
Use proper stakeholder standards.
Use proper industry standards.
Use proper regulatory requirements.
Use proper local codes.
Use proper building codes.
Use proper engineering standards.
Use proper safety standards.
Use proper health and safety standards.
Use proper environmental standards.
Use proper quality standards.
Use proper performance standards.
Use proper efficiency standards.
Use proper productivity standards.
Use proper cost standards.
Use proper value standards.
Use proper customer standards.
Use proper stakeholder standards.

Qty	Size	MLL	Product	Length	Height
2	1 3/4" x 8 1/4" L1BE	Microfilam® LVL	6'0"	HDB-1	
2	1 3/4" x 11 7/8" L1BE	Microfilam® LVL	22'0"	GDB-1	

SIMPSON CONNECTOR SCHEDULE					
CARRIED MEMBER	CARRIVING MEMBER	CARRIER	EMBEDDING	DAY	HANGER TYPE
A02, B02, B03	FG01	3D-104 1/4"	251-104	1E	HDBA
FG01	A03	1E-104	461-104	1	HDBA-102

THIS SHEET IS TO BE USED IN CONNECTION WITH THE BUILDING PERMITS AND TO BE USED IN CONJUNCTION WITH THE BUILDING PERMITS. THE PERMITS ARE THE PROPERTY OF THE CITY OF SUMTER, SOUTH CAROLINA. THE PERMITS ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. THE PERMITS ARE NOT TO BE USED FOR ANY OTHER PROJECTS WITHOUT THE WRITTEN PERMISSION OF THE CITY OF SUMTER, SOUTH CAROLINA.

ALL DIMENSIONS UNLESS OTHERWISE NOTED



GENERAL NOTES

- This placement plan has been prepared by a truss technician and is not an engineered drawing.
- The responsibility and duties of the truss technician shall be defined by the building code unless otherwise defined by contract as agreed upon by the parties involved.
- The wood components on this drawing are assumed to be used in a dry service, which requires special application, unless noted otherwise. The metal plates and hangers are galvanized to meet or exceed G90.
- Specific truss information can be located on the truss design drawing.
- Locate all plumbing, HVAC, and floor-ceiling openings prior to placing trusses. Trusses may be shored a maximum of 3" for plumbing drops, DO NOT CUT, DRILL, OR NOTCH TRUSSES.
- The building designer shall specify connections between two or more members when one or more of the members are not designed by the truss designer.
- This truss placement plan and design drawings are for informational purposes only and shall not be reproduced in part or in total under any circumstances unless within authorization is received from Builders FirstSource.
- Some field framing may be required to achieve final appearance shown on construction documents.
- Field framing, including valley rakers, installed over trusses shall have a knee brace from the raker to the truss top chord at intervals of 48" on center. The brace shall be installed on the raker side such that the load is distributed over multiple truss locations and not concentrated at one location on any one truss. Truss top chords shall be supported by a 2x4 on center or 2x6 on center spaced at intervals of 24" on center or less. Field framed supports or connections to bottom chords must be done at intervals of 48" on center. The maximum span shown on the truss design drawing.
- This placement diagram is prepared assuming the building components provided. This includes but is not limited to foundation design, structural member sizing, load transfer, bearing conditions, building codes, etc. Refer to TFI 1 as referenced by the building code for building designer responsibility.
- If piggyback trusses are included in this job, please refer to the Metal Piggyback connection detail provided in the truss info package, reviewed upon truss delivery.

WARNING

Until the building is completely erected in accordance with the construction documents, the hazard of falling trusses exists. Truss stability may increase with building width, height and height.

Buildings under construction are vulnerable to high winds and present a safety hazard. It is the responsibility of the contractor and truss installation crew to recognize adverse weather conditions and take prompt and appropriate action to prevent the building from becoming a danger to the public.

Refer to the Building Component Safety Manual from Builders FirstSource for details on TFI 1 and TFI 2.

IMPORTANT

This diagram and any other truss placement or design information provided by Builders FirstSource is for informational purposes only and shall not be reproduced in part or in total under any circumstances unless within authorization is received from Builders FirstSource. In any way, reader is instructed to refer to the building code for details.

REV	REVISIONS
1	X
2	X
3	X
4	X

H&H
Kent "B"
Base + COP
Roof Truss

SUMTER TRUSS PLANT
P.O. BOX 1546
SUMTER, SC 29151
PHONE: (803) 778-1921
FAX: (803) 773-4731

Builders FirstSource

DRAWN BY: JR
DATE: 9/27/17
JOB NUMBER: 1291742
SHEET NUMBER: 1 OF 1



REScheck Software Version 4.4.4 Compliance Certificate

Project Title: Kent worst case

Energy Code: North Carolina Energy Conservation Code
 Location: Lillington, North Carolina
 Construction Type: Single Family
 Project Type: New construction
 Building Orientation: Bldg. faces 0 deg. from North
 Glazing Area Percentage: 8%
 Heating Degree Days: 3502
 Climate Zone: 4

Construction Site:
NC

Owner/Agent:
H&H Homes
2919 Breezewood Ave, Suite 400
Fayetteville, NC 28303

Designer/Contractor:
Justin Smith
Southern Energy Management
101 Kitty Hawk Dr
Morrisville, NC 27560
(919) 836-0330
jsmith@southern-energy.com

Compliance: Passes using UA trade-off

Compliance: 2.4% Better Than Code Maximum UA: 421 Your UA: 411 Maximum SHGC: 0.40 Your SHGC: 0.27

The % Better or Worse Than Code index reflects how close to compliance the house is based on code trade-off rules.
 It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Ceiling 1: Flat Ceiling or Scissor Truss	1170	19.0	19.0		30
Wall 1: Wood Frame, 16" o.c. Orientation: Front	688	19.0	0.0		36
Window 1: Vinyl Frame:Double Pane with Low-E SHGC: 0.27 Orientation: Front	50			0.350	18
Door 1: Solid Orientation: Front	20			0.200	4
Door 2: Solid Orientation: Front	18			0.200	4
Wall 2: Wood Frame, 16" o.c. Orientation: Left Side	620	19.0	0.0		36
Window 5: Vinyl Frame:Double Pane with Low-E SHGC: 0.27 Orientation: Left Side	14			0.350	5
Wall 3: Wood Frame, 16" o.c. Orientation: Right Side	620	19.0	0.0		35
Window 4: Vinyl Frame:Double Pane with Low-E SHGC: 0.27 Orientation: Right Side	41			0.350	14
Wall 4: Wood Frame, 16" o.c. Orientation: Back	688	19.0	0.0		35
Window 3: Vinyl Frame:Double Pane with Low-E SHGC: 0.27 Orientation: Back	97			0.350	34
Floor 1: Slab-On-Grade:Unheated Insulation depth: 0.0'	154		0.0		160

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the North Carolina Energy Conservation Code requirements in REScheck Version 4.4.4 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.



REScheck Software Version 4.4.4 Inspection Checklist

Energy Code: North Carolina Energy Conservation Code
Location: Lillington, North Carolina
Construction Type: Single Family
Project Type: New construction
Building Orientation: Bldg. faces 0 deg. from North
Glazing Area Percentage: 8%
Heating Degree Days: 3502
Climate Zone: 4

Ceilings:

- Ceiling 1: Flat Ceiling or Scissor Truss, R-19.0 cavity + R-19.0 continuous insulation

Comments: _____

Above-Grade Walls:

- Wall 1: Wood Frame, 16" o.c., R-19.0 cavity insulation

Comments: _____

- Wall 2: Wood Frame, 16" o.c., R-19.0 cavity insulation

Comments: _____

- Wall 3: Wood Frame, 16" o.c., R-19.0 cavity insulation

Comments: _____

- Wall 4: Wood Frame, 16" o.c., R-19.0 cavity insulation

Comments: _____

Windows:

- Window 1: Vinyl Frame:Double Pane with Low-E, U-factor: 0.350, SHGC: 0.27,

For windows without labeled U-factors, describe features:

#Panes ____ Frame Type _____ Thermal Break? ____ Yes ____ No

Comments: _____

- Window 5: Vinyl Frame:Double Pane with Low-E, U-factor: 0.350, SHGC: 0.27,

For windows without labeled U-factors, describe features:

#Panes ____ Frame Type _____ Thermal Break? ____ Yes ____ No

Comments: _____

- Window 4: Vinyl Frame:Double Pane with Low-E, U-factor: 0.350, SHGC: 0.27,

For windows without labeled U-factors, describe features:

#Panes ____ Frame Type _____ Thermal Break? ____ Yes ____ No

Comments: _____

- Window 3: Vinyl Frame:Double Pane with Low-E, U-factor: 0.350, SHGC: 0.27,

For windows without labeled U-factors, describe features:

#Panes ____ Frame Type _____ Thermal Break? ____ Yes ____ No

Comments: _____

Doors:

- Door 1: Solid, U-factor: 0.200

Comments: _____

- Door 2: Solid, U-factor: 0.200

Comments: _____

Floors:

- Floor 1: Slab-On-Grade:Unheated, R-0 (uninsulated)

Comments: _____

Slab insulation extends down from the top of the slab to at least 0.0 ft. OR down to at least the bottom of the slab then horizontally for a total distance of 0.0 ft. Slab edge insulation must have a 2 inch termite inspection gap.

Solar Heat Gain Coefficient:

- Solar Heat Gain Coefficient (SHGC) values are determined in accordance with the NFRC test procedure or taken from the default table.

Air Leakage:

- Joints (including rim joist junctions), attic access openings, penetrations, and all other such openings in the building envelope that are sources of air leakage are sealed with caulk, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material.
- Air barrier and sealing exists on common walls between dwelling units, on exterior walls behind tubs/showers, and in openings between window/door jambs and framing.
- Recessed lights in the building thermal envelope are 1) type IC rated and ASTM E283 labeled and 2) sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.
- Access doors separating conditioned from unconditioned space (e.g., attic, unconditioned basements and crawlspaces) are weather-stripped and insulated (without insulation compression or damage). Where loose fill insulation exists, a wood framed or equivalent baffle is installed to maintain insulation application. Required insulation values are as follows:
- (1) Hinged vertical doors have a minimum of R-5 insulation.
 - (2) Hatches/scuttle hole covers have a minimum of R-10 insulation.
 - (3) Pull down stairs have a minimum of R-5 rigid insulation.
- Site-built masonry fireplaces have doors and comply with Section R1006 of the North Carolina Residential Code for combustion air.

Air Sealing and Insulation:

- Building envelope air tightness and insulation installation complies with one of the following (mark the method that was applied):
- (1) ___ Post rough-in blower door test result of less than or equal to 5 ACH at 50 pascals.
 - (2) ___ Post rough-in blower door test result of less than or equal to 0.30 CFM50/square foot of surface area.
 - (3) ___ Visual inspection. The following items, along with all other air leakage requirements in this report, are certified by the builder, permit holder or registered design professional as completed.
 - (a) Ceiling/attic: Sealants or gaskets provide a continuous air barrier system joining the top plate of framed walls with either the ceiling drywall or the top edge of wall drywall to prevent air leakage. Top plate penetrations are sealed.
 - (b) Ceiling/attic: For ceiling finishes that are not air barrier systems such as tongue-and-groove planks, air barrier systems (e.g., taped house wrap) are used above the finish.
 - (c) Above Grade Walls: Sill plate is gasketed or sealed to subfloor or slab.
 - (d) Windows/doors: Space between window and door jambs and framing are sealed.
 - (e) Floors: Air barrier system is installed at any exposed edge of insulation.

Sunrooms:

- Sunrooms that are thermally isolated from the building envelope have a maximum fenestration U-factor of 0.40 and the maximum skylight U-factor of 0.75.
- Sunrooms with cooling systems shall have a maximum fenestration SHGC or 0.40 for all glazing.

Materials Identification and Installation:

- Materials and equipment are installed in accordance with the manufacturer's installation instructions.
- Materials and equipment are identified so that compliance can be determined.
- Manufacturer manuals for all installed heating and cooling equipment and service water heating equipment have been provided.
- Insulation R-values and glazing U-factors are clearly marked on the building plans or specifications.

Duct Insulation:

- Supply and return ducts in unconditioned space and outdoors are insulated to R-8. Supply ducts inside semi-conditioned space are insulated to R-4.

Duct Construction and Testing:

- Building framing cavities are not used as supply ducts.
- All joints and seams of air ducts, air handlers, filter boxes, and building cavities used as return ducts are sealed. Joints and seams comply with Part V - Mechanical, Section 603.9 of the North Carolina Residential Code.
- Postconstruction total duct leakage test (including air handler enclosure) has been performed and results are less than or equal to 120.0 cfm (6 cfm per 100 ft2 of conditioned floor area) pressure differential of 0.1 inches w.g. Tests are performed according to North Carolina Energy Conservation Code guidelines (Section 403.2.2).

Temperature Controls:

- Where the primary heating system is a forced air-furnace, at least one programmable thermostat is installed to control the primary heating system and has set-points initialized at 70 degree F for the heating cycle and 78 degree F for the cooling cycle.
- Heat pumps having supplementary electric-resistance heat have controls that prevent supplemental heat operation when the compressor can meet the heating load.

Heating and Cooling Equipment Sizing:

- Heating and cooling equipment shall be sized in accordance with the North Carolina Mechanical Code.
- For systems serving multiple dwelling units documentation has been submitted demonstrating compliance with 2009 IECC Commercial Building Mechanical and/or Service Water Heating (Sections 503 and 504).

Circulating Service Hot Water Systems:

- Circulating service hot water pipes are insulated to R-2.
- Circulating service hot water systems include an automatic or accessible manual switch to turn off the circulating pump when the system is not in use.

Heating and Cooling Piping Insulation:

- HVAC piping conveying fluids above 105 degrees F or chilled fluids below 55 degrees F are insulated to R-3.

Swimming Pools:

- Heated swimming pools have an on/off heater switch.
 - Pool heaters operating on natural gas or LPG have an electronic pilot light.
 - Timer switches on pool heaters and pumps are present.
- Exceptions:*
- Where public health standards require continuous pump operation.
 - Where pumps operate within solar- and/or waste-heat-recovery systems.
- Heated swimming pools and in-ground permanently installed spas have a vapor-retardent cover.
- Exceptions:*
- Covers are not required when 70% of the heating energy is from site-recovered energy or solar energy source.

Lighting Requirements:

- A minimum of 75 percent of the lamps in permanently installed lighting fixtures can be categorized as one of the following:
 - (a) Compact fluorescent
 - (b) T-8 or smaller diameter linear fluorescent
 - (c) 40 lumens per watt for lamp wattage <= 15
 - (d) 50 lumens per watt for lamp wattage > 15 and <= 40
 - (e) 60 lumens per watt for lamp wattage > 40

Other Requirements:

- Snow- and ice-melting systems with energy supplied from the service to a building shall include automatic controls capable of shutting off the system when a) the pavement temperature is above 50 degrees F, b) no precipitation is falling, and c) the outdoor temperature is above 40 degrees F (a manual shutoff control is also permitted to satisfy requirement 'c').

Certificate:

- A permanent certificate is provided on or in the electrical distribution panel listing the predominant insulation R-values; window U-factors; type and efficiency of space-conditioning and water heating equipment. The certificate does not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels.

NOTES TO FIELD: (Building Department Use Only)



North Carolina Energy Efficiency Certificate

Insulation Rating	R-Value
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Ceiling / Roof	38.00
Wall	19.00
Floor / Foundation	0.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
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Window	0.35	0.27
Door	0.20	NA

Heating & Cooling Equipment	Efficiency
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Heating System: _____	_____
Cooling System: _____	_____
Water Heater: _____	_____

Building Air Leakage and Duct Test Results
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Air Leakage Compliance Method: Visual Inspection
 Air Leakage Test

Building Air Leakage Test Results _____
Name of Air Leakage Tester _____
Duct Tightness Test Results _____
Name of Duct Tester _____

Name: _____ Date: _____

Comments: