Columbia County New Building Permit Application

6,12

For Office Use Only Application # 1907-97 Date Received 7/24/19 By MG Permit # 3889 / 2867

Zoning Official T.C. Date 8-6-19 Flood Zone X Land Use AG *ESA-2 Zoning A-3

FEMA Map # Elevation MFE 1' Above River N/A Plans Examiner T.C Date 8-6-19

Comments Floor 1' Above Rd Front 30' Sides 25' Rear 25'

☑ NOC/NOI ☑ EH ☐ Deed or PA ☑ Site Plan ☐ State Road Info ☑ Well letter ☑ 911 Sheet ☐ Parent Parcel #

☐ Dev Permit # ☐ In Floodway ☑ Letter of Auth. from Contractor ☐ F W Comp. letter

☐ Owner Builder Disclosure Statement ☐ Land Owner Affidavit ☐ Ellisville Water ☑ App Fee Paid ☑ Sub VF Form

Septic Permit No. 19-0524 OR City Water ☐ Fax 386-758-8920

Applicant (Who will sign/pickup the permit) SUZANNE STEWART Phone 386-752-8653

Address 465 NW ORANGE STREET, LAKE CITY, FL 32055

Owners Name RONNIE AND JOCELYN FOXX Phone 386-288-8726

911 Address 261 SW HIGHPOINT GLN, LAKE CITY, FL 32024

Contractors Name BRYAN ZECHER Phone 386-752-8653

Address 465 NW ORANGE STREET, LAKE CITY, FL 32055

Contractor Email ZECHEROFFICE@GMAIL.COM ***Include to get updates on this job.

Fee Simple Owner Name & Address

Bonding Co. Name & Address Christopher PE

Architect/Engineer Name & Address SABO, 1205 BEACH BLVD, JAX BEACH, FL

Mortgage Lenders Name & Address FIRST FEDERAL, P.O. BOX 2029, LAKE CITY, FL

Circle the correct power company ☐ FL Power & Light ☒ Clay Elec. ☐ Suwannee Valley Elec. ☐ Duke Energy

Property ID Number 01-5S-16-03406-113 Estimated Construction Cost $296,400.

Subdivision Name ROSE CREEK PLANTATION Lot 13 Block Unit Phase 2

Driving Directions from a Major Road From Hwy 90, go South onto Main Blvd and turn slight right onto Hwy 47S. Turn left onto SW Water Ave/Walter Little Rd. Turn left onto SW Stoneridge Dr and then right onto SW Highpoint Gln. The jobsite will be on the right.

Construction of NEW HOME Commercial OR X Residential

Proposed Use/Occupancy RESIDENTIAL Number of Existing Dwellings on Property 0

Is the Building Fire Sprinkled? If Yes, blueprints included Or Explain

Circle Proposed ☒ Culvert Permit or ☐ Culvert Waiver or ☐ D.O.T. Permit or ☐ Have an Existing Drive

Actual Distance of Structure from Property Lines - Front 60' Side 500' Side 145' Rear 190'

Number of Stories 1 Heated Floor Area 2032 Total Floor Area 2894 Acreage 5

Zoning Applications applied for (Site & Development Plan, Special Exception, etc.)

8/9/19 - Spoke w/ Suzanne - need EH ; JW Sent Email 8.16.19

Columbia County Building Permit Application

CODE: Florida Building Code 2017 and the 2014 National Electrical Code.

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

TIME LIMITATIONS OF APPLICATION : An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless pursued in good faith or a permit has been issued.

TIME LIMITATIONS OF PERMITS: Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time work is commenced. A valid permit receives an approved inspection every 180 days. Work shall be considered not suspended, abandoned or invalid when the permit has received an approved inspection within 180 days of the previous approved inspection.

FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment: According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

NOTICE OF RESPONSIBILITY TO CONTRACTOR AND AGENT: ***YOU ARE HEREBY NOTIFIED*** as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

OWNERS CERTIFICATION: I CERTIFY THAT ALL THE FOREGOING INFORMATION IS ACCURATE AND THAT ALL WORK WILL BE DONE IN COMPLIANCE WITH ALL APPLICABLE LAWS REGULATING CONSTRUCTION AND ZONING.

NOTICE TO OWNER: There are some properties that may have deed restrictions recorded upon them. These restrictions may limit or prohibit the work applied for in your building permit. You must verify if your property is encumbered by any restrictions or face possible litigation and or fines.

Ronnie Foxx — **Print Owners Name**

Ronnie Foxx — **Owners Signature**

****Property owners must sign here before any permit will be issued.**

****If this is an Owner Builder Permit Application then, ONLY the owner can sign the building permit when it is issued.**

CONTRACTORS AFFIDAVIT: By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit including all application and permit time limitations.

Contractor's Signature

Contractor's License Number CBC054575
Columbia County Competency Card Number 853 ✓

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 22nd **day of** July **20**19.

Personally known ☐ **or Produced Identification** _____

Suzanne Stewart

State of Florida Notary Signature (For the Contractor)

SEAL:

SUZANNE STEWART
MY COMMISSION # FF 936523
EXPIRES: November 16, 2019
Bonded Thru Budget Notary Services

SUBCONTRACTOR VERIFICATION

APPLICATION/PERMIT # 1907-97 JOB NAME FOX II

THIS FORM MUST BE SUBMITTED BEFORE A PERMIT WILL BE ISSUED

Columbia County issues combination permits. One permit will cover all trades doing work at the permitted site. It is REQUIRED that we have records of the subcontractors who actually did the trade specific work under the general contractors permit.

***NOTE:** It shall be the responsibility of the general contractor to make sure that all of the subcontractors are licensed with the Columbia County Building Department.*
Use website to confirm licenses: http://www.columbiacountyfla.com/PermitSearch/ContractorSearch.aspx

NOTE: If this should change prior to completion of the project, it is your responsibility to have a corrected form submitted to our office, before that work has begun.

Violations will result in stop work orders and/or fines.

		Need
ELECTRICAL ☑ CC# 0076	Print Name Marc Matthews Signature Company Name: Matthews Electric License #: EC13005459 Phone #: 386-344-2029	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
MECHANICAL/ A/C ☑ CC# 2024	Print Name Anthony Franks Signature Company Name: Franks & Lane heating and air License #: CAC1818631 Phone #: 386-466-7514	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
PLUMBING/ GAS ☑ CC# 000715	Print Name Cody Borrs Signature Company Name: Borrs Plumbing License #: CFC1427145 Phone #: 386-623-0509	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
ROOFING ☑ CC 1019	Print Name Robert Ogles II Signature Company Name: Ogles Roofing & Construction License #: CCC 1328699 Phone #: 386-364-4838	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
SHEET METAL ☐ CC#	Print Name Signature Company Name: License #: Phone #:	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
FIRE SYSTEM/ SPRINKLER ☐ CC#	Print Name Signature Company Name: License#: Phone #:	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
SOLAR ☐ CC#	Print Name Signature Company Name: License #: Phone #:	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
STATE SPECIALTY ☐ CC#	Print Name Signature Company Name: License #: Phone #:	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE

Ref: F.S. 440.103; ORD. 2016-30

This Instrument Prepared By:
Michael H. Harrell
Abstract Trust Title, LLC
283 NW Cole Ter
Lake City, FL 32055

ATT 4-8946

NOTICE OF COMMENCEMENT

TO WHOM IT MAY CONCERN:

The undersigned hereby give notice that improvements will be made to certain real property and in accordance with Chapter 713, Florida Statues, the following is provided in this Notice of Commencement:

1. Description of Property: Lot 13, Rose Creek Plantation Phase II, according to the map or plat thereof, as recorded in Plat Book 7, Page(s) 28 and 29, of the Public Records of Columbia County, Florida.

2. General Description of Improvement: Construction of Dwelling

3. Owner Information:

   a. Name and Address: Ronnie L. Foxx and His Wife, Jocelyn Foxx, 493 SW Dexter Cir, Apt# 202, Lake City, FL 32025

   b. Interest in property: Fee Simple

   c. Name and address of fee simple title holder (if other than Owner): NONE

4. Contractor (name and address): Bryan Zecher Construction DBA Bryan Zecher Homes, Inc., 465 NW Orange St., Lake City, FL 32055

5. Surety:

   a. Name and Address: N/A

   b. Amount of Bond: N/A

Inst: 201912015551 Date: 07/08/2019 Time: 2:09PM
Page 1 of 1 B: 1388 P: 759, P.DeWitt Cason, Clerk of Court Colum County, By: BD
Deputy Clerk

6. LENDER: First Federal Bank
   PO Box 2029
   Lake City, FL 32056

7. Persons within the State of Florida designated by Owner upon whom notices of other documents may be served as provided in Section 713.13(1)(a)7., Florida Statutes: NONE

8. In addition to himself, Owner designates First Federal Bank at PO Box 2029, Lake City, FL 32056, to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b) Florida Statutes.

9. Expiration date of Notice of Commencement (the expiration date is 1 year from the date of recording unless a different date is specified).

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART 1 SECTION 713, 13, FLORIDA STATUTES AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU NEED TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

***Owner is used for singular or plural as context requires.**

Signed, sealed and delivered in the presence:

WITNESS Kamaya Bennett

WITNESS

Ronnie L. Foxx

Jocelyn R. Foxx A/K/A Jocelyn Foxx

STATE OF FLORIDA
COUNTY OF COLUMBIA

Before me, personally appeared Ronnie L. Foxx and His Wife, Jocelyn R. Foxx A/K/A Jocelyn Foxx, to me known to be the person(s) described in and who executed the foregoing instrument, and they acknowledged to and before me that they executed said instrument for the purpose therein expressed.

Witness my hand and official seal this 8th day of July, 2019.

(SEAL)

Michael H. Harrell
NOTARY PUBLIC
STATE OF FLORIDA
Comm# GG095249
Expires 4/18/2021

NOTARY PUBLIC

My Commission Expires:

Verification Pursuant to Section 92.525, Florida Statutes

Under Penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

Ronnie L. Foxx

Jocelyn R. Foxx A/K/A Jocelyn Foxx

STATE OF FLORIDA, COUNTY OF COLUMBIA
I HEREBY CERTIFY, that the above and foregoing is a true copy of the original filed in this office
P. DeWITT CASON, CLERK OF COURTS
By: Deputy Clerk
Date: July 8, 2019

CLERK CIRCUIT COURT
COLUMBIA COUNTY, FLORIDA

Columbia County Property Appraiser

Jeff Hampton

2018 Tax Roll Year
updated: 6/25/2019

Parcel: << 01-5S-16-03406-113 >>

Owner & Property Info

Result: 1 of 1

Owner	FOXX RONNIE L & JOCELYN 493 SW DEXTER CIR APT 202 LAKE CITY, FL 32025		
Site	,		
Description*	LOT 13 ROSE CREEK PLANTATION PHASE 2. 917-1548, WD 1382 -1729		
Area	5 AC	S/T/R	01-5S-16E
Use Code**	VACANT (000000)	Tax District	3

*The Description above is not to be used as the Legal Description for this parcel in any legal transaction.
**The Use Code is a FL Dept. of Revenue (DOR) code and is not maintained by the Property Appraiser's office. Please contact your city or county Planning & Zoning office for specific zoning information.

Aerial Viewer | Pictometery | Google Maps

2019 | 2016 | 2013 | 2010 | 2007 | 2005 | ✔ Sales

Property & Assessment Values

2018 Certified Values		2019 Working Values	
Mkt Land (1)	$45,320	Mkt Land (1)	$45,320
Ag Land (0)	$0	Ag Land (0)	$0
Building (0)	$0	Building (0)	$0
XFOB (0)	$0	XFOB (0)	$0
Just	$45,320	Just	$45,320
Class	$0	Class	$0
Appraised	$45,320	Appraised	$45,320
SOH Cap [?]	$0	SOH Cap [?]	$0
Assessed	$45,320	Assessed	$45,320
Exempt	$0	Exempt	$0
Total Taxable	county:$45,320 city:$45,320 other:$45,320 school:$45,320	Total Taxable	county:$45,320 city:$45,320 other:$45,320 school:$45,320

Sales History

Sale Date	Sale Price	Book/Page	Deed	V/I	Quality (Codes)	RCode
4/15/2019	$55,000	1382/1729	WD	V	Q	01
1/5/2001	$49,900	917/1548	WD	V	Q	

Building Characteristics

Bldg Sketch	Bldg Item	Bldg Desc*	Year Blt	Base SF	Actual SF	Bldg Value
NONE						

Extra Features & Out Buildings (Codes)

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
NONE						

Land Breakdown

Land Code	Desc	Units	Adjustments	Eff Rate	Land Value
000000	VAC RES (MKT)	5.000 AC	1.00/1.00 1.00/1.00	$9,064	$45,320

Search Result: 1 of 1

© Columbia County Property Appraiser | Jeff Hampton | Lake City, Florida | 386-758-1083

by: GrizzlyLogic.com

PAT LYNCH
LYNCH DRILLING CORP
P O Box 934
Branford, FL 32008
(386)935-1076

DATE 7-16-19

CUSTOMER Ronnie + Jocelyn Foxx
493 SW Dexter Cir. Apt. 202
Lake City, FL 32025

LOCATION Parcel 01-5S-16-03406-113

WE WILL CONSTRUCT A 4" WATER WELL COMPLETE WITH 4" WATER WELL STEEL CASING, 1HP SUBMERSIBLE PUMP WITH 1 1/4" DROP PIPE, AND AN 85 GALLON CAPTIVE AIR TANK (21.9 GALLON DRAWDOWN).

WELL WILL BE COMPLETE AT THE WELL SITE, WE DO NOT INCLUDE ELECTRICAL NOR PLUMBING CONNECTIONS FROM THE WELL TO THE HOME AND/OR POWER POLE.

ANY VARIATIONS OF THE ABOVE ARE SUBJECT TO APPROVAL FROM THE CUSTOMER AND.OR CONTRACTOR PRIOR TO COMMENSMENT OF THE INDIVIDUAL JOB.

THANK YOU

NOT RESPONSIBLE FOR THE QUALITY OF WATER

DeWitt Cason Clerk of Courts, Columbia County, Florida Doc Deed: 385.00 Doc Mort: 0.00 Int Tax: 0.00

Prepared by and return to:
Rob Stewart
Lake City Title
426 SW Commerce Drive, Ste 145
Lake City, FL 32025
(386) 758-1880
File No 2019-2758
Parcel Identification No 01-5S-16-03406-113

[Space Above This Line For Recording Data]

WARRANTY DEED

(STATUTORY FORM – SECTION 689.02, F.S.)

This indenture made the **15th day of April, 2019** between **Michael J. Handy and Maxine E. Handy, Husband and Wife**, whose post office address is **P.O. Box 3177, Lake City, FL 32056**, of the County of Columbia, State of Florida, Grantors, to **Ronnie L. Foxx and Jocelyn Foxx, Husband and Wife**, whose post office address is **493 SW Dexter Circle, Apt 202, Lake City, FL 32025**, of the County of Columbia, State of Florida, Grantees:

Witnesseth, that said Grantors, for and in consideration of the sum of TEN DOLLARS (U.S.$10.00) and other good and valuable considerations to said Grantors in hand paid by said Grantees, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said Grantees, and Grantees' heirs and assigns forever, the following described land, situate, lying and being in Columbia, Florida, to-wit:

Lot
13, of ROSE CREEK PLANTATION PHASE II, a subdivision according to the Plat thereof, as recorded in Plat Book 7, Pages 28 and 29, of the Public Records of Columbia County, Florida

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

Subject to taxes for 2019 and subsequent years, not yet due and payable; covenants, restrictions, easements, reservations and limitations of record, if any.

TO HAVE AND TO HOLD the same in fee simple forever.

And Grantors hereby covenant with the Grantees that the Grantors are lawfully seized of said land in fee simple, that Grantors have good right and lawful authority to sell and convey said land and that the Grantors hereby fully warrant the title to said land and will defend the same against the lawful claims of all persons whomsoever.

In Witness Whereof, Grantors have hereunto set Grantors' hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

WITNESS Debi Bennifield

Michael J. Handy

WITNESS Robert S. Stewart

Maxine E. Handy

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this 15th day of April, 2019, by Michael J Handy and Maxine E Handy, who are personally known to me or have produced Driver's License as identification.

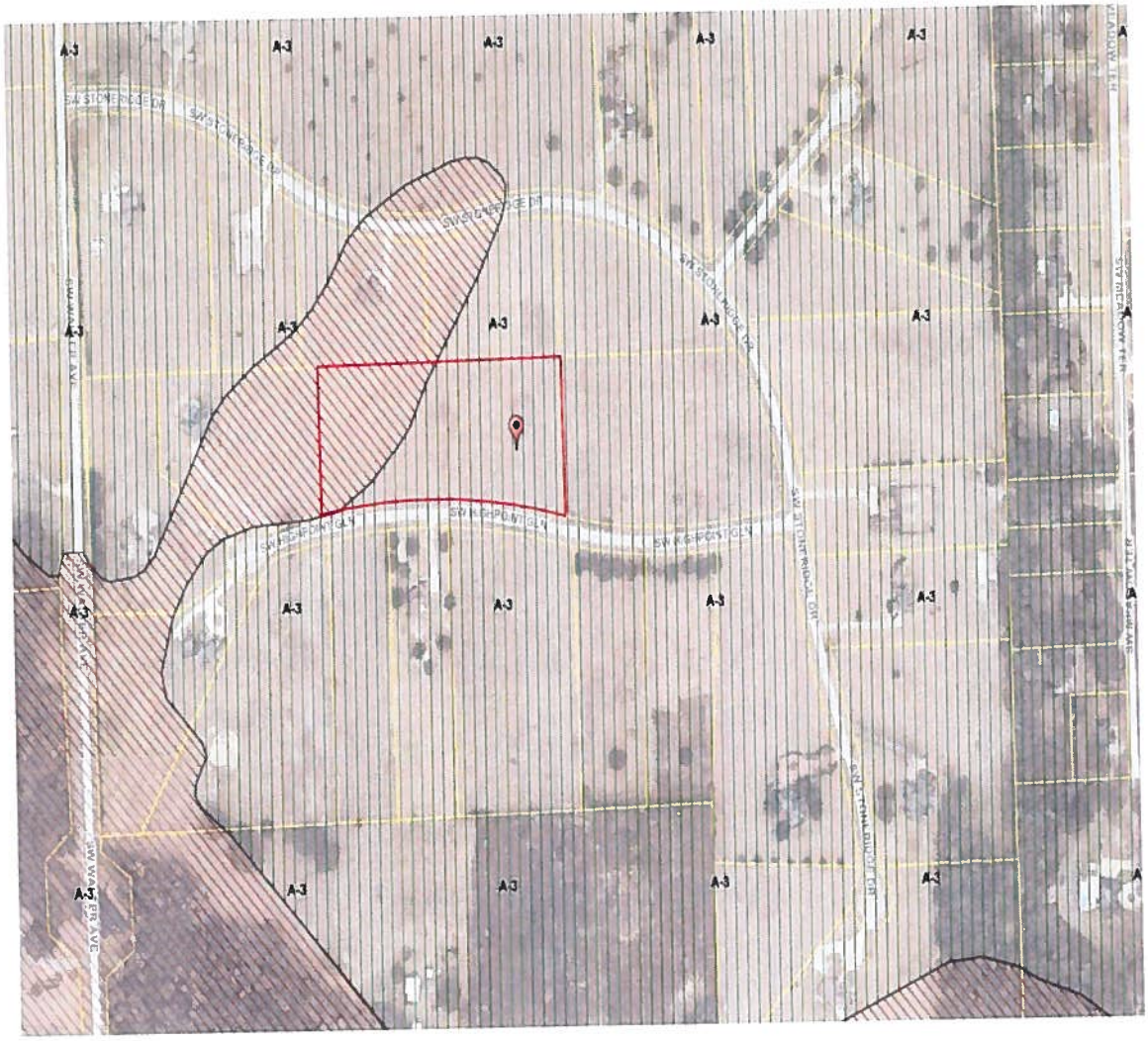
Signature of Notary Public

Robert S. Stewart

Notary Public State of Florida
Robert S Stewart
My Commission GG 128943
Expires 09/26/2021

Columbia County, FLA - Building & Zoning Property Map

Printed: Fri Aug 09 2019 11:06:10 GMT-0400 (Eastern Daylight Time)



Legend

Parcels

Roads
- Roads
- others
- Dirt
- Interstate
- Main
- Other
- Paved
- Private

RailRoads

2018Aerials

Ellisville Overlay

DUDA

DevZones1
- others
- A-1
- A-2
- A-3
- CG
- CHI
- CI
- CN
- CSV
- ESA-2
- I
- ILW
- MUD-I
- PRD
- PRRD
- RMF-1
- RMF-2
- RO
- RR
- RSF-1
- RSF-2
- RSF-3
- RSF/MH-1
- RSF/MH-2
- RSF/MH-3
- DEFAULT

FutureLandUseMap
- Mixed Use Development
- Light Industrial
- Industrial
- Highway Interchange
- Commercial
- Residential High Density (< 20 d.u. per acre)
- Residential Medium/High Density (< 14 d.u. per acre)
- Residential Medium Density (< 8 d.u. per acre)
- Residential Moderate Density (< 4 d.u. per acre)
- Residential Low Density (< 2 d.u. per acre)
- Residential Very Low Density (< 1 d.u. per acre)
- Agriculture - 3 (< 1 d.u. per 5 acres)
- Agriculture - 2 (< 1 d.u. per 10 acres)
- Agriculture - 1

Parcel Information

Parcel No: 01-5S-16-03406-113

Owner: HANDY MICHAEL J & MAXINE E

Subdivision: ROSE CREEK PLANTATION PHASE 2

Lot:

Acres: 5.003727

Deed Acres: 5 Ac

District: District 5 Tim Murphy

Future Land Uses: Agriculture - 3, Environmentally Sensitive Areas -1

Flood Zones:

Official Zoning Atlas: A-3

egend

Parcels

Roads

Roads
others
Dirt
Interstate
Main
Other
Paved
Private

RailRoads

2018Aerials

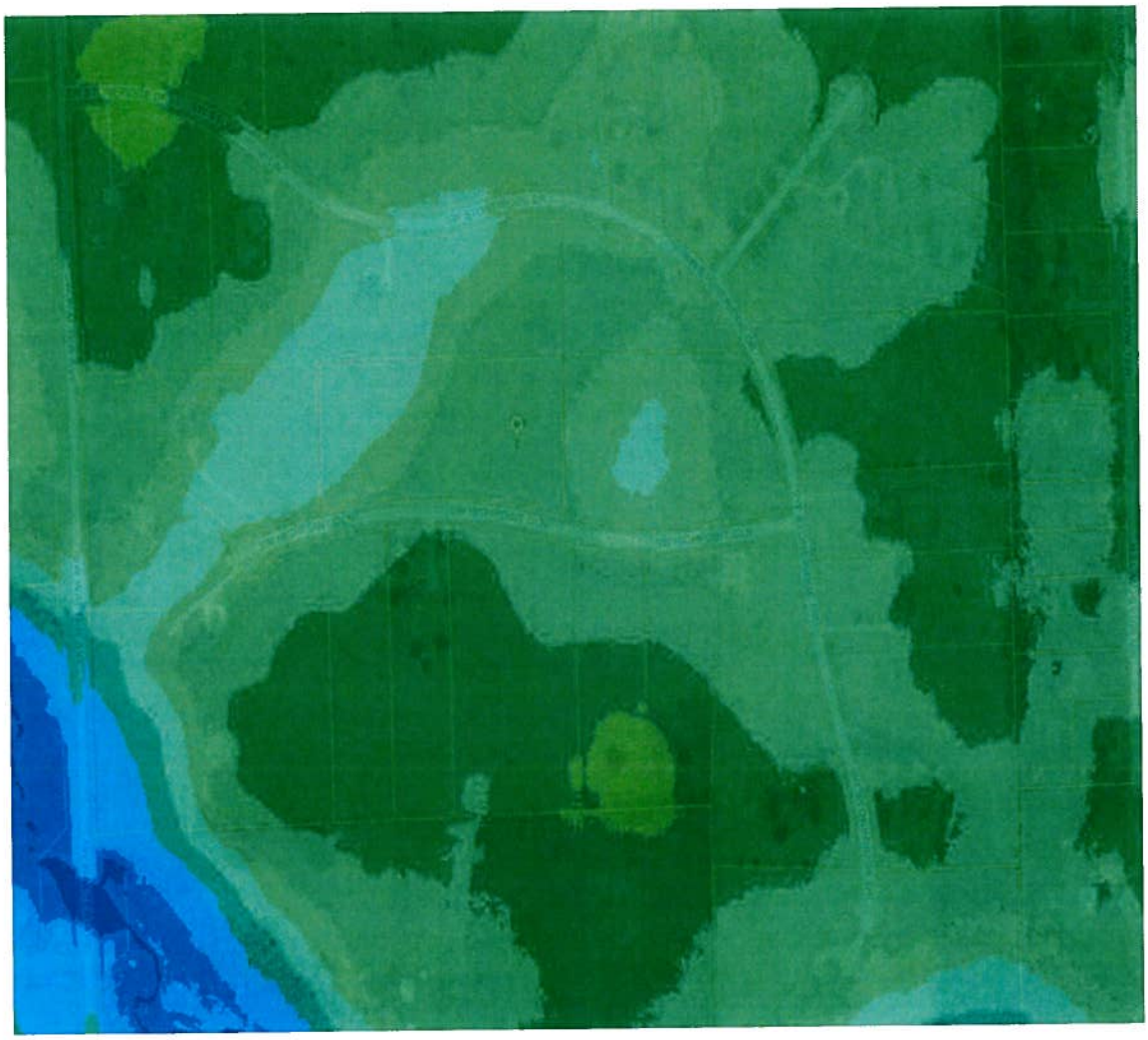
Ellisville Overlay

DUDA

LidarElevations

Columbia County, FLA - Building & Zoning Property Map

Printed: Fri Aug 09 2019 11:06:40 GMT-0400 (Eastern Daylight Time)



Parcel Information

Parcel No: 01-5S-16-03406-113

Owner: HANDY MICHAEL J & MAXINE E

Subdivision: ROSE CREEK PLANTATION PHASE 2

Lot:

Acres: 5.003727

Deed Acres: 5 Ac

District: District 5 Tim Murphy

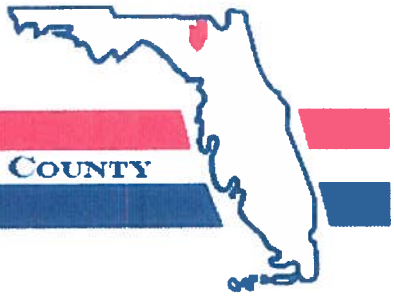
Future Land Uses: Agriculture - 3, Environmentally Sensitive Areas -1

Flood Zones:

Official Zoning Atlas: A-3

District No. 1 - Ronald Williams
District No. 2 - Rocky Ford
District No. 3 - Bucky Nash
District No. 4 - Toby Witt
District No. 5 - Tim Murphy

BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY



Address Assignment and Maintenance Document

To maintain the county wide Addressing Policy you must make application for a 9-1-1 Address at the time you apply for a building permit. The established standards for addressing and posting numbers to all principal buildings, dwellings, businesses and industries are contained in Columbia County Ordinance 2001-9. The addressing system is to enable Emergency Services Agencies to locate you in an emergency, and to assist the United States Postal Service and the public in the timely and efficient provision of services to residents and businesses of Columbia County

Date/Time Issued:	**7/11/2019 12:57:55 PM**
Address:	**261 SW HIGHPOINT Gln**
City:	**LAKE CITY**
State:	**FL**
Zip Code	**32024**
Parcel ID	**03406-113**

REMARKS: Address for proposed structure on parcel.

NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION AND ACCESS INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION AND/OR ACCESS INFORMATION BE FOUND TO BE IN ERROR OR CHANGED, THIS ADDRESS IS SUBJECT TO CHANGE.

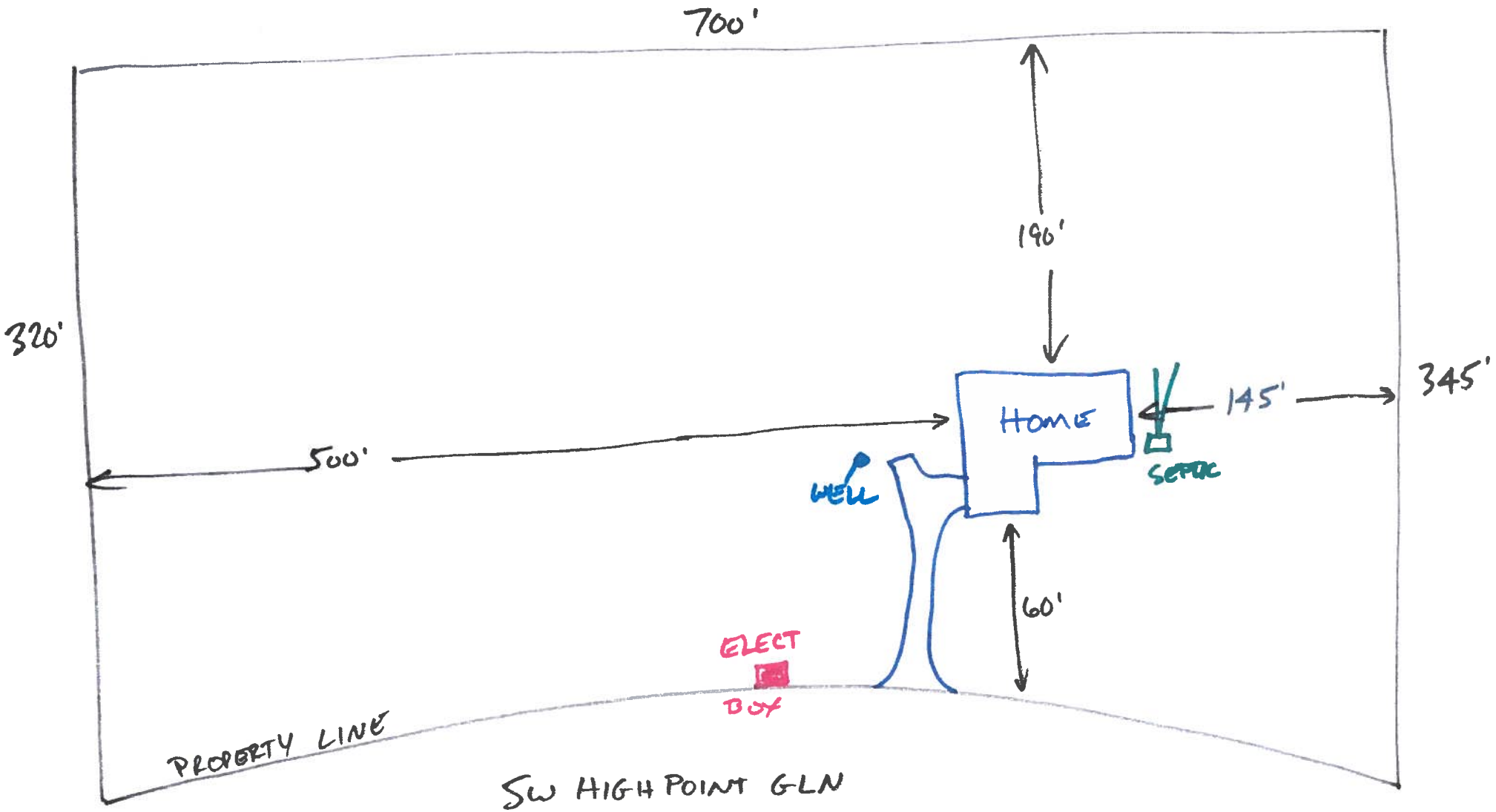
Address Issued By: **Signed:/ Matt Crews**

Columbia County GIS/911 Addressing Coordinator

COLUMBIA COUNTY
911 ADDRESSING / GIS DEPARTMENT
263 NW Lake City Ave., Lake City, FL 32055 Telephone: (386) 758-1125
Email: gis@columbiacountyfla.com

Foxx Site Plan

Property ID 01-55-16-03406-113



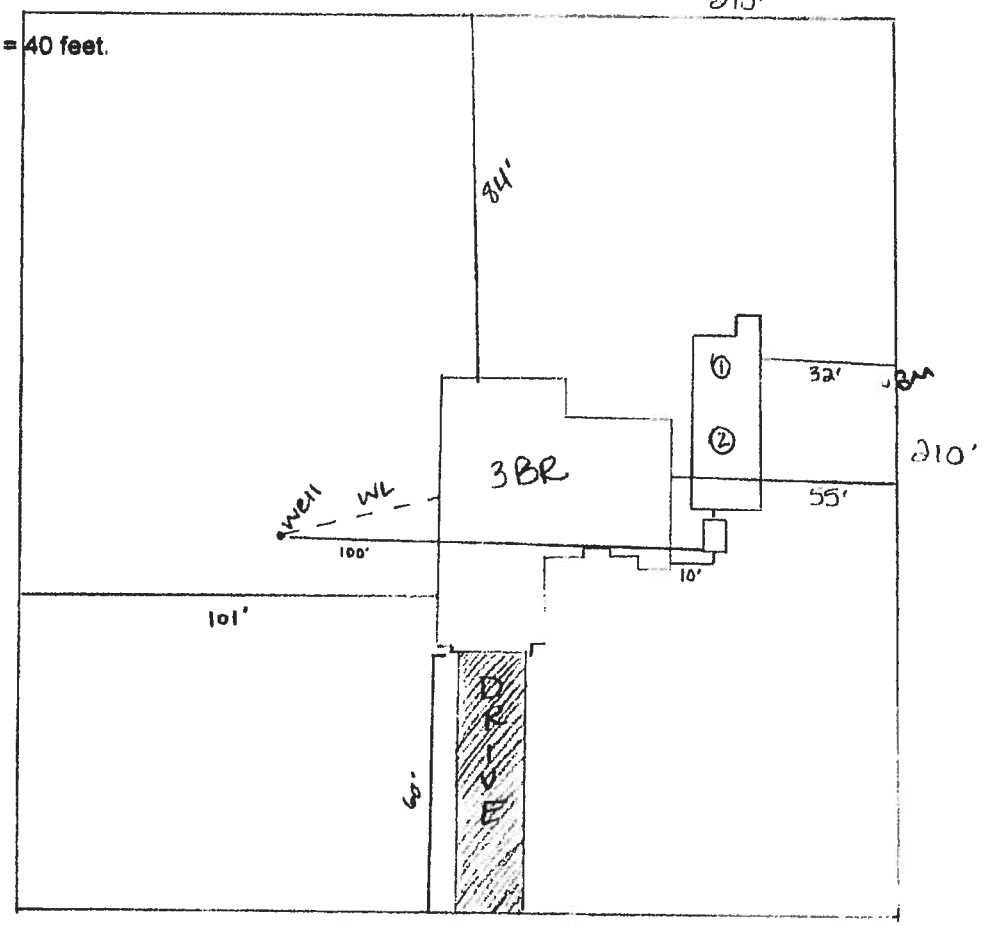
STATE OF FLORIDA
DEPARTMENT OF HEALTH
APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number 19-0524

FOXX

PART II - SITEPLAN

Scale: 1 inch = 40 feet.



Notes: _____

Site Plan submitted by: _____ MASTER CONTRACTOR

Plan Approved _____ Not Approved _____ Date 7/8/19

By _____ Columbia CHD County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
APPLICATION FOR CONSTRUCTION PERMIT

PERMIT NO. 19-2524
DATE PAID: 7/12/19
FEE PAID: 318.00
RECEIPT #: 14233328

APPLICATION FOR:
[X] New System [ ] Existing System [ ] Holding Tank [ ] Innovative
[ ] Repair [ ] Abandonment [ ] Temporary [ ] _____

APPLICANT: Ronnie Foxx

AGENT: ROCKY FORD, A & B CONSTRUCTION TELEPHONE: 386-497-2311

MAILING ADDRESS: 546 SW Dortch Street, FT. WHITE, FL, 32038

TO BE COMPLETED BY APPLICANT OR APPLICANT'S AUTHORIZED AGENT. SYSTEMS MUST BE CONSTRUCTED BY A PERSON LICENSED PURSUANT TO 489.105(3)(m) OR 489.552, FLORIDA STATUTES. IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE DOCUMENTATION OF THE DATE THE LOT WAS CREATED OR PLATTED (MM/DD/YY) IF REQUESTING CONSIDERATION OF STATUTORY GRANDFATHER PROVISIONS.

PROPERTY INFORMATION

LOT: 13 BLOCK: Ph 2 SUB: Rose Creek Plantation PLATTED: _____

PROPERTY ID #: 01-5S-16-03406-113 ZONING: _____ I/M OR EQUIVALENT: [Y / N]

PROPERTY SIZE: 5 ACRES WATER SUPPLY: [X] PRIVATE PUBLIC [ ]<=2000GPD [ ]>2000GPD

IS SEWER AVAILABLE AS PER 381.0065, FS? [Y / (N)] DISTANCE TO SEWER: NA FT

PROPERTY ADDRESS: 261 SW Highpoint Gln Lake City

DIRECTIONS TO PROPERTY: 47 South left on SW Walter Little Rd Left on SW Stoneridge Dr Right on SW Highpoint Gln to property on Right

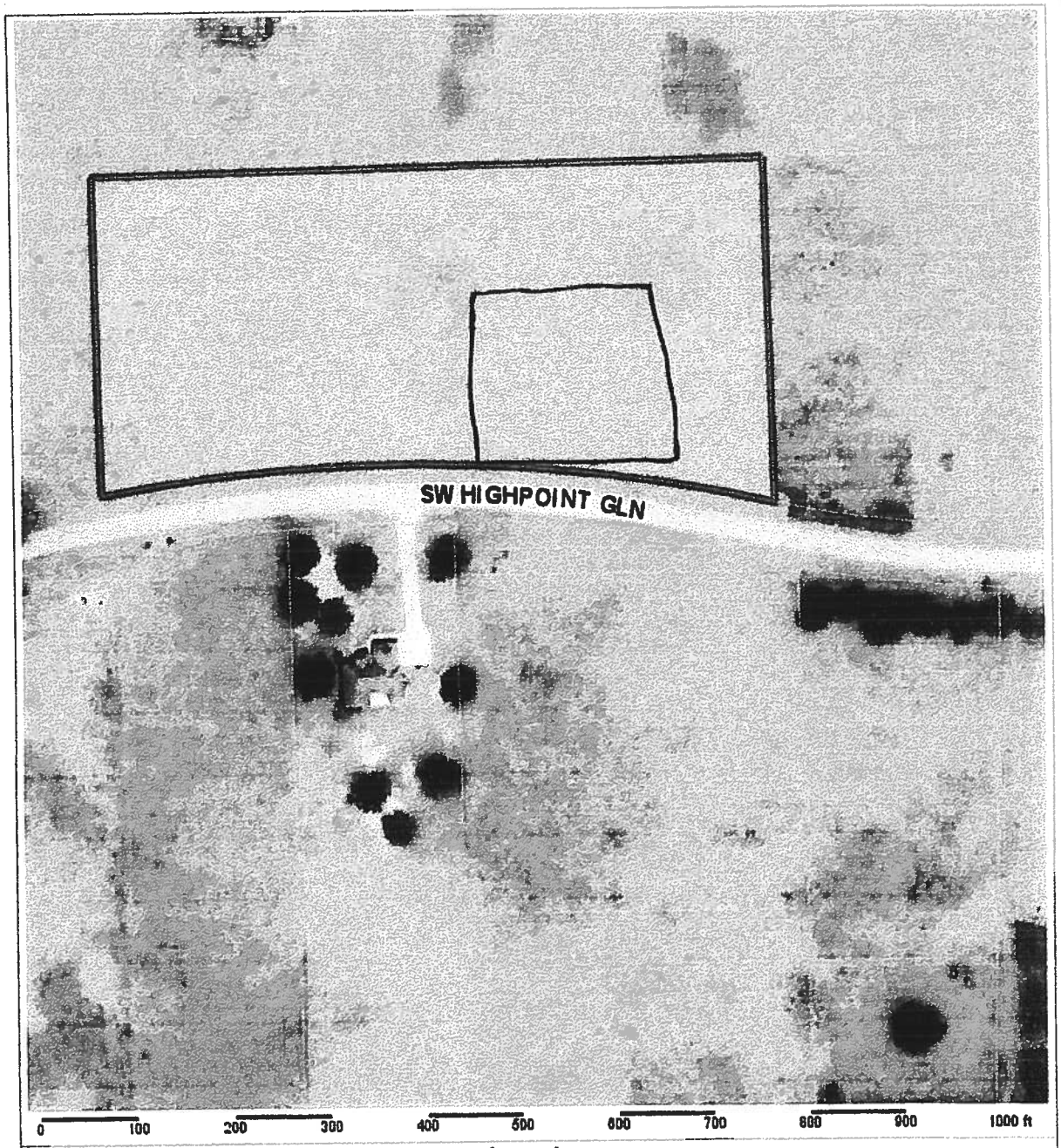
BUILDING INFORMATION [X] RESIDENTIAL [ ] COMMERCIAL

Unit No	Type of Establishment	No. of Bedrooms	Building Area Sqft	Commercial/Institutional System Design Table 1, Chapter 64E-6, FAC
1	SF Residential	3	2032	
2				
3				

[ ] Floor/Equipment Drains [ ] Other (Specify) _____

SIGNATURE: Rocky Ford DATE: 7/8/2019

DH 4015, 08/09 (Obsoletes previous editions which may not be used)
Incorporated 64E-6.001, FAC



Columbia County Property Appraiser

Jeff Hampton | Lake City, Florida | 386-758-1083

PARCEL: 01-5S-16-03406-113 | VACANT (000000) | 5 AC

LOT 13 ROSE CREEK PLANTATION PHASE 2 917-1548, WD 1382 -1729

FOXX RONNIE L & JOCELYN

Owner: 493 SW DEXTER CIR
APT 202
LAKE CITY, FL 32025

Site: ,

Sales Info			
Sales	4/15/2019	$55,000	V (Q)
Info	1/5/2001	$49,900	V (Q)

2018 Certified Values

Mkt Lnd	$45,320	Appraised	$45,320
Ag Lnd	$0	Assessed	$45,320
Bldg	$0	Exempt	$0
XFOB	$0		county:$45,320
Just	$45,320	Total Taxable	city:$45,320
			other:$45,320
			school:$45,320

NOTES:

Columbia County, FL

This information,, was derived from data which was compiled by the Columbia County Property Appraiser Office solely for the governmental purpose of property assessment. This information should not be relied upon by anyone as a determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data herein, it's use, or it's interpretation. Although it is periodically updated, this information may not reflect the data currently on file in the Property Appraiser's office

COLUMBIA COUNTY BUILDING DEPARTMENT
RESIDENTIAL CHECK LIST

MINIMUM PLAN REQUIREMENTS: FLORIDA BUILDING CODE RESIDENTIAL 2017 EFFECTIVE 1 JANUARY 2018 AND THE NATIONAL ELECTRICAL 2014 EFFECTIVE 1 JANUARY 2018

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

ALL BUILDING PLANS MUST INDICATE COMPLIANCE WITH THE CURRENT FLORIDA BUILDING CODES RESIDENTIAL AND THE NATIONAL ELECTRICAL CODE. ALL PLANS OR DRAWINGS SHALL PROVIDE CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS, FBC 1609.3.1 THRU 1609.3.3.

FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEEDS ARE PER FLORIDA BUILDING CODE FIGURE 1609-A THROUGH 1609-C ULTIMATE DESIGN WIND SPEEDS FOR RISK CATEGORY AND BUILDINGS AND OTHER STRUCTURES
Revised 7/1/18

Website: http://www.columbiacountyfla.com/BuildingandZoning.asp

GENERAL REQUIREMENTS:
APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

Items to Include- Each Box shall be Circled as Applicable
Select From Drop down

1	Two (2) complete sets of plans containing the following:					
2	All drawings must be clear, concise, drawn to scale, details that are not used shall be marked void					
3	**Condition space (Sq. Ft.)**	2032	**Total (Sq. Ft.) under roof**	2894	Yes	No	NA

Designers name and signature shall be on all documents and a licensed architect or engineer, signature and official embossed seal shall be affixed to the plans and documents as per the FLORIDA BUILDING CODES RESIDENTIAL 107.1.

Site Plan information including:

4	Dimensions of lot or parcel of land	- ✓		
5	Dimensions of all building set backs	- ✓		
6	Location of all other structures (include square footage of structures) on parcel, existing or proposed well and septic tank and all utility easements.	- ✓		
7	Provide a full legal description of property.	- ✓		

Wind-load Engineering Summary, calculations and any details are required.

GENERAL REQUIREMENTS:
APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

Items to Include- Each Box shall be Circled as Applicable

8	**Plans or specifications must show compliance with FBCR Chapter 3**	Yes	**No**	NA

Select From Drop down

9	Basic wind speed (3-second gust), miles per hour	- ✓		
10	(Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated)	- ✓		
11	Wind importance factor and nature of occupancy	- ✓		
12	The applicable internal pressure coefficient, Components and Cladding	- ✓		
13	The design wind pressure in terms of psf (kN/m²), to be used for the design of exterior component, cladding materials not specifally designed by the registered design professional.	- ✓		

Elevations Drawing including:

14	All side views of the structure	-		
15	Roof pitch	- ✓		
16	Overhang dimensions and detail with attic ventilation	- ✓		
17	Location, size and height above roof of chimneys	- ✓		
18	Location and size of skylights with Florida Product Approval	-		
19	Number of stories	- ✓		
20	Building height from the established grade to the roofs highest peak	-		

Fl oor Pl an Including:

21	Dimensioned area plan showing rooms, attached garage, breeze ways, covered porches, deck, balconies	- ✓		
22	Raised floor surfaces located more than 30 inches above the floor or grade	-		
23	All exterior and interior shear walls indicated	- ✓		
24	Shear wall opening shown (Windows, Doors and Garage doors)	-		
25	Show compliance with Section FBCR 310 Emergency escape and rescue opening shown in each bedroom (net clear opening shown) and Show compliance with Section FBC 1405.13.2 where the opening of an operable window is located more than 72 inches above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches above the finished floor of the room in which the window is located. Glazing between the floor and 24 inches shall be fixed or have openings through which a 4-inch-diameter sphere cannot pass.	✓ - ✓		
26	Safety glazing of glass where needed	-		
27	Fireplaces types (gas appliance) (vented or non-vented) or wood burning with Hearth (see chapter 10 and chapter 24 of FBCR)	✓		
28	Show stairs with dimensions (width, tread and riser and total run) details of guardrails, Handrails	- ✓		
29	Identify accessibility of bathroom (see FBCR SECTION 320)	- ✓		

All materials placed within opening or onto/into exterior walls, soffits or roofs shall have Florida product approval number and mfg. installation information submitted with the plans
(see Florida product approval form)

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Circled as Applicable

FBCR 403: Foundation Plans

		Select From Drop down		
30	Location of all load-bearing walls footings indicated as standard, monolithic, dimensions, size and type of reinforcing.	- ✓		
31	All posts and/or column footing including size and reinforcing	- ✓		
32	Any special support required by soil analysis such as piling.	- ✓		
33	Assumed load-bearing valve of soil _____ Pound Per Square Foot	- ✓		
34	Location of horizontal and vertical steel, for foundation or walls (include # size and type) **For** structures with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an grounding electrode system. Per the National Electrical Code article 250.52.3	- ✓		

FBCR 506: CONCRETE SLAB ON GRADE

35	Show Vapor retarder (6mil. Polyethylene with joints la ped 6 inches and sealed)	- ✓		
36	Show control joints, synthetic fiber reinforcement or welded fire fabric reinforcement and Supports	-		

FBCR 318: PROTECTION AGAINST TERMITES

37	Indicate on the foundation plan if soil treatment is used for subterranean termite prevention or Submit other approved termite protection methods. **Protection shall be provided by registered termiticides**	- ✓		

FBCR 606: Masonry Walls and Stem walls (load bearing & shear Walls)

38	Show all materials making up walls, wall height, and Block size, mortar type	-		
39	Show all Lintel sizes, type, spans and tie-beam sizes and spacing of reinforcement	-		✓

Metal frame shear wall and roof systems shall be designed, signed and sealed by Florida Prof. Engineer or Architect

Floor Framing System: First and/or second story

40	Floor truss package shall including layout and details, signed and sealed by Florida Registered Professional Engineer	-
41	Show conventional floor joist type, size, span, spacing and attachment to load bearing walls, stem walls and/or priers	-
42	Girder type, size and spacing to load bearing walls, stem wall and/or priers	-
43	Attachment of joist to girder	-
44	Wind load requirements where applicable	-
45	Show required under-floor crawl space	-
46	Show required amount of ventilation opening for under-floor spaces	-
47	Show required covering of ventilation opening	-
48	Show the required access opening to access to under-floor spaces	-
49	Show the sub-floor structural panel sheathing type, thickness and fastener schedule on the edges & intermediate of the areas structural panel sheathing	-
50	Show Draftstopping, Fire caulking and Fire blocking	-
51	Show fireproofing requirements for garages attached to living spaces, per FBCR section 302.6	-
52	Provide live and dead load rating of floor framing systems (psf).	-

FBCR CHAPTER 6 WOOD WALL FRAMING CONSTRUCTION

	GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Circled as Applicable
		Select from Drop down
53	Stud type, grade, size, wall height and oc spacing for all load bearing or shear walls	-
54	Fastener schedule for structural members per table FBC-R602.3.2 are to be shown	-
55	Show wood structural panel's sheathing attachment to studs, joist, trusses, rafters and structural members, showing fastener schedule attachment on the edges & intermediate of the areas structural panel sheathing	-
56	Show all required connectors with a max uplift rating and required number of connectors and oc spacing for continuous connection of structural walls to foundation and roof trusses or rafter systems	-
57	Show sizes, type, span lengths and required number of support jack studs, king studs for shear wall opening and girder or header per FBC-R602.7.	-
58	Indicate where pressure treated wood will be placed	-
59	Show all wall structural panel sheathing, grade, thickness and show fastener schedule for structural panel sheathing edges & intermediate areas	-
60	A detail showing gable truss bracing, wall balloon framing details or/ and wall hinge bracing detail	-

FBCR :ROOF SYSTEMS:

61	Truss design drawing shall meet section FBC-R 802.10. 1 Wood trusses	-
62	Include a layout and truss details, signed and sealed by Florida Professional Engineer	-
63	Show types of connector's assemblies' and resistance uplift rating for all trusses and rafters	-
64	Show gable ends with rake beams showing reinforcement or gable truss and wall bracing details	-
65	Provide dead load rating of trusses	-

FBCR 802:Conventional Roof Framing Layout

66	Rafter and ridge beams sizes, span, species and spacing	-
67	Connectors to wall assemblies' include assemblies' resistance to uplift rating	-
68	Valley framing and support details	-
69	Provide dead load rating of rafter system	-

FBCR 803 ROOF SHEATHING

70	Include all materials which will make up the roof decking, identification of structural panel sheathing, grade, thickness	-
71	Show fastener Size and schedule for structural panel sheathing on the edges & intermediate areas	-

ROOF ASSEMBLIES FRC Chapter 9

72	Include all materials which will make up the roof assembles covering	-		
73	Submit Florida Product Approval numbers for each component of the roof assembles covering	-		

FBCR Chapter 11 Energy Efficiency Code for Residential Building

Residential construction shall comply with this code by using the following compliance methods in the FBCR Chapter 11 Residential buildings compliance methods. **Two of the required forms are to be submitted**, *N1100.1.1.1 As an alternative to the computerized Compliance Method A, the Alternate Residential Point System Method hand calculation, Alternate Form 600A, may be used. All requirements specific to this calculation are located in Sub appendix C to Appendix G. Buildings complying by this alternative shall meet all mandatory requirements of this chapter. Computerized versions of the Alternate Residential Point System Method shall not be acceptable for code compliance.*

	GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Circled as Applicable		
		Select from Drop Down		
74	Show the insulation R value for the following areas of the structure	-		
75	Attic space	-		
76	Exterior wall cavity	-		
77	Crawl space	-		

HVAC information

78	Submit two copies of a Manual J sizing equipment or equivalent computation study	-		
79	Exhaust fans shown in bathrooms **Mechanical exhaust capacity of 50 cfm intermittent or 20 cfm continuous required**	-		
80	Show clothes dryer route and total run of exhaust duct	-		

Plumbing Fixture layout shown

81	All fixtures waste water lines shall be shown on the foundation plan	-		
82	Show the location of water heater	-		

Private Potable Water

83	Pump motor horse power	-		
84	Reservoir pressure tank gallon capacity	-		
85	Rating of cycle stop valve if used	-		

Electrical layout shown including

86	Show Switches, receptacles outlets, lighting fixtures and Ceiling fans	-		
87	Show all 120-volt, single phase, 15- and 20-ampere branch circuits outlets required to be protected by **Ground-Fault Circuit Interrupter (GFCI) Article 210.8 A**	-		
88	Show the location of smoke detectors & Carbon monoxide detectors	-		
89	Show service panel, sub-panel, location(s) and total ampere ratings	-		
90	On the electrical plans identify the electrical service overcurrent protection device for the main electrical service. This device shall be installed on the exterior of structures to serve as a disconnecting means for the utility company electrical service. Conductors used from the exterior disconnecting means to a panel or sub panel shall have four-wire conductors, of which one conductor shall be used as an equipment ground. Indicate if the utility company service entrance cable will be of the overhead or underground type. **For structures** with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an Grounding electrode system. Per the National Electrical Code article 250.52.3	-		
91	Appliances and HVAC equipment and disconnects	-		
92	Show all 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by a listed **Combination arc-fault circuit interrupter,** Protection device.	-		

Notice Of Commencement:

A notice of commencement form RECORDED in the Columbia County Clerk Office is required to be filed with the Building Department BEFORE ANY INSPECTIONS can be performed.

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Circled as Applicable

****ITEMS 95, 96, & 98 Are Required After APPROVAL from the ZONING DEPT.****

Select from Drop down

93	**Building Permit Application** A current Building Permit Application is to be completed, by following the Checklist all supporting documents must be submitted. There is a **$15.00** application fee. The completed application with attached documents and application fee can be mailed.	-		
94	**Parcel Number** The parcel number (Tax ID number) from the Property Appraisers Office (386) 758-1083 is required. A copy of property deed is also required. www.columbiacountyfla.com	-		
95	**Environmental Health Permit or Sewer Tap Approval** A copy of a approved Columbia County Environmental Health (386) 758-1058	-		
96	**City of Lake City** A City Water and/or Sewer letter. Call 386-752-2031	-		
97	**Toilet facilities shall be provided for all construction sites**	-		
98	**Town of Fort White** (386) 497-2321 If the parcel in the application for building permit is within the Corporate city limits of Fort White, an approval land use development letter issued by the Town of Fort is required to be submitted with the application for a building permit.	-		
99	**Flood Information:** All projects within the Floodway of the Suwannee or Santa Fe Rivers shall require permitting through the Suwannee River Water Management District, before submitting a application to this office. Any project located within a flood zone where the base flood elevation (100 year flood) has been established shall meet the requirements of Section 8.5.2 of the Columbia County Land Development Regulations. Any project located within a flood zone where the base flood elevation has not been established (Zone A) shall meet the requirements of Section 8.5.3 of the Columbia County Land Development Regulations (Municode.com)	-		
100	**CERTIFIED FINISHED FLOOR ELEVATIONS** will be required on any project where the approved FIRM Flood Maps show the property is in a AE, Floodway, and AH flood zones. Additionally One Foot Rise letters are required for AE and AH zones. In the Floodway Flood zones a Zero Rise letter is required.	-		
101	A Flood development permit is also required for AE, Floodway & AH. Development permit cost is **$50.00**	-		
102	**Driveway Connection:** If the property does not have an existing access to a public road, then an application for a culvert permit (**$25.00**) must be made. County Public Works Dept. determines the size and length of every culvert before instillation and completes a final inspection before permanent power is granted. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver (**$50.00**) Separate Check when issued. If the project is to be located on an F.D.O.T. maintained road, then an F.D.O.T. access permit is required.	-		
103	**911 Address:** An application for a 911 address must be applied for and **received** through the Columbia County Emergency Management Office of 911 Addressing Department (386) 758-1125.	-		

Ordinance Sec. 90-75. - Construction debris. (e) It shall be unlawful for any person to dispose of or discard solid waste, including construction or demolition debris at any place within the county other than on an authorized disposal site or at the county's solid waste facilities. The temporary storage, not to exceed seven days of solid waste (excluding construction and demolition debris) on the premises where generated or vegetative trash pending disposition as authorized by law or ordinance, shall not be deemed a violation of this section. The temporary storage of construction and demolition debris on the premises where generated or vegetative trash pending disposition as authorized by law or ordinance shall not be deemed in violation of this section; provided, however, such construction and demolition debris must be disposed of in accordance with this article prior to the county's issuance of a certificate of occupancy for the premises. The burning of lumber from a construction or demolition project or vegetative trash when done so with legal and proper permits from the authorized agencies and in accordance with such agencies' rules and regulations, shall not be deemed a violation of this section. No person shall bury, throw, place, or deposit, or cause to be buried, thrown, placed, or deposited, any solid waste, special waste, or debris of any kind into or on any of the public streets, road right-of-way, highways, bridges, alleys, lanes, thoroughfares, waters, canals, or vacant lots or lands within the county. No person shall bury any vegetative trash on any of the public streets, road right-of-way, highways, bridges, lanes, thoroughfares, waters, canals, or lots less than ten acres in size within the county.

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. Statewide approved products are listed online @ www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
1. EXTERIOR DOORS			
A. SWINGING	THERMO - TRU	EXTERIOR HINGED DOORS	FL 5891 - R3
B. SLIDING	PGT	SLIDING GLASS DOORS	FL 251 - R15
C. SECTIONAL/ROLL UP		GARAGE DOORS	FL 5678 - R2
D. OTHER			
2. WINDOWS			
A. SINGLE/DOUBLE HUNG	PGT	WINDOW	FL 239 - R19
B. HORIZONTAL SLIDER	PGT	WINDOW	FL 242 - R16
C. CASEMENT			
D. FIXED	PGT	WINDOW	FL 243 - R14
E. MULLION			
F. SKYLIGHTS			
G. OTHER			
3. PANEL WALL			
A. SIDING	HARDIE	PANEL WALL SIDING	FL 13192 - R5
B. SOFFITS	KAYCON	ALUMINUM SOFFIT / FACIA	FL 12198 - R1
C. STOREFRONTS	STO	STUCCO FINISH	FL 15026 - R1
D. GLASS BLOCK			
E. OTHER			
4. ROOFING PRODUCTS			
A. ASPHALT SHINGLES	GAF	ARCH SHINGLES 30YR	FL 10124 - R20
B. NON-STRUCTURAL METAL	GAF	TAR PAPER	FL 4911 - R3
C. ROOFING TILES	OMG	ROOFING NAILS	FL 699 - R3
D. SINGLE PLY ROOF			
E. OTHER			
5. STRUCTURAL COMPONENTS			
A. WOOD CONNECTORS	USPC	ANCHORS	FL 5631 - R1
B. WOOD ANCHORS	USPC	ANCHORS	FL 5631 - R1
C. TRUSS PLATES			
D. INSULATION FORMS			
E. LINTELS			
F. OTHERS			
6. NEW EXTERIOR ENVELOPE PRODUCTS			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.
Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.

Contractor OR Agent Signature

5/31/18
Date

NOTES: _____

RESIDENTIAL ENERGY CONSERVATION CODE DOCUMENTATION CHECKLIST

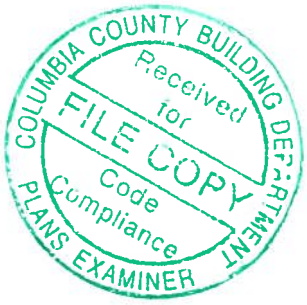
Florida Department of Business and Professional Regulation
Simulated Performance Alternative (Performance) Method

Applications for compliance with the 2017 Florida Building Code, Energy Conservation via the residential Simulated Performance Method shall include:

- ☐ *This checklist*
- ☐ *A Form R405 report that documents that the Proposed Design complies with Section R405.3 of the Florida Energy Code. This form shall include a summary page indicating home address, e-ratio and the pass or fail status along with summary areas and types of components, whether the home was simulated as a worst-case orientation, name and version of the compliance software tool, name of individual completing the compliance report (one page) and an input summary checklist that can be used for field verification (usually four pages/may be greater).*
- ☐ *Energy Performance Level (EPL) Display Card (one page)*
- ☐ *HVAC system sizing and selection based on ACCA Manual S or per exceptions provided in Section R403.7*
- ☐ *Mandatory Requirements (five pages)*

Required prior to CO for the Performance Method:

- ☐ *Air Barrier and Insulation Inspection Component Criteria checklist (Table R402.4.1.1 - one page)*
- ☐ *A completed Envelope Leakage Test Report (usually one page)*
- ☐ *If Form R405 duct leakage type indicates anything other than "default leakage", then a completed Form R405 Duct Leakage Test Report (usually one page)*



FORM R405-2017

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	190842 Foxx res	Builder Name:	Bryan Zecher Homes
Street:		Permit Office:	
City, State, Zip:	Lake City , FL ,	Permit Number:	
Owner:	Foxx Res	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia (Florida Climate Zone 2)

1. New construction or existing	New (From Plans)
2. Single family or multiple family	Single-family
3. Number of units, if multiple family	1
4. Number of Bedrooms	3
5. Is this a worst case?	Yes
6. Conditioned floor area above grade (ft²)	2032
Conditioned floor area below grade (ft²)	0

7. Windows(329.5 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.30	329.50 ft²
SHGC:	SHGC=0.20	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
d. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		7.560 ft.
Area Weighted Average SHGC:		0.200

8. Floor Types (2032.0 sqft.)	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	2032.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

9. Wall Types (1831.7 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1618.70 ft²
b. Frame - Wood, Adjacent	R=13.0	213.00 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types (2160.0 sqft.)	Insulation	Area
a. Under Attic (Vented)	R=38.0	2160.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts	R	ft²
a. Sup: Attic, Ret: Attic, AH: main	6	406.4

12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	36.0	SEER:15.00

13. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	36.0	HSPF:8.80

14. Hot water systems	
a. Electric	Cap: 50 gallons EF: 0.950
b. Conservation features	
None	
15. Credits	Pstat

Glass/Floor Area: 0.162

Total Proposed Modified Loads: 56.90

Total Baseline Loads: 56.94

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: Evan Beamsley

DATE: 2019-07-23

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: 7/23/19

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 7.00 ACH50 (R402.4.1.2).

FORM R405-2017

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	190842 Foxx res	Bedrooms:	3	Address Type:	Street Address
Building Type:	User	Conditioned Area:	2032	Lot #	
Owner Name:	Foxx Res	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	Yes	PlatBook:	
Builder Name:	Bryan Zecher Homes	Rotate Angle:	45	Street:	
Permit Office:		Cross Ventilation:		County:	Columbia
Jurisdiction:		Whole House Fan:		City, State, Zip:	Lake City , FL ,
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

√	Design Location	TMY Site	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, Gainesville	FL_GAINESVILLE_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	2032	18857

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	main	2032	18857	Yes	6	3	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	main	202 ft	0	2032 ft²	----	0.3	0.3	0.4

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	2273 ft²	0 ft²	Dark	N	0.92	No	0.9	No	0	26.6

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	2032 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	main	38	Blown	2160 ft²	0	Wood

FORM R405-2017

INPUT SUMMARY CHECKLIST REPORT

WALLS

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
____	1	N=>NE	Exterior	Frame - Wood	main	13	27	4	9		246.0 ft²		0.23	0.75	0
____	2	E=>SE	Exterior	Frame - Wood	main	13	9	4	9		84.0 ft²		0.23	0.75	0
____	3	N=>NE	Exterior	Frame - Wood	main	13	26	8	9		240.0 ft²		0.23	0.75	0
____	4	E=>SE	Exterior	Frame - Wood	main	13	35	8	9		321.0 ft²		0.23	0.75	0
____	5	S=>SW	Exterior	Frame - Wood	main	13	8	2	9		73.5 ft²		0.23	0.75	0
____	6	W=>NW	Exterior	Frame - Wood	main	13	1	4	9		12.0 ft²		0.23	0.75	0
____	7	S=>SW	Exterior	Frame - Wood	main	13	6	6	9		58.5 ft²		0.23	0.75	0
____	8	W=>NW	Exterior	Frame - Wood	main	13	2		9		18.0 ft²		0.23	0.75	0
____	9	S=>SW	Exterior	Frame - Wood	main	13	7	2	11	4	81.2 ft²		0.23	0.75	0
____	10	E=>SE	Exterior	Frame - Wood	main	13	2		9		18.0 ft²		0.23	0.75	0
____	11	S=>SW	Exterior	Frame - Wood	main	13	11	10	9		106.5 ft²		0.23	0.75	0
____	12	W=>NW	Garage	Frame - Wood	main	13	3	4	9		30.0 ft²		0.23	0.75	0
____	13	S=>SW	Garage	Frame - Wood	main	13	20	4	9		183.0 ft²		0.23	0.75	0
____	14	W=>NW	Exterior	Frame - Wood	main	13	40	0	9		360.0 ft²		0.23	0.75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
_____	1	N=>NE	Insulated	main	None	.4	2		8		16 ft²
_____	2	N=>NE	Insulated	main	None	.4	2		8		16 ft²
_____	3	S=>SW	Insulated	main	None	.4	2		8		16 ft²
_____	4	S=>SW	Insulated	main	None	.4	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered orientation (=>) changed to Worst Case.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
_____	1	N=>NE	1	Metal	Low-E Double	Yes	0.3	0.2	N	45.0 ft²	1 ft 6 in	1 ft 6 in	None	None
_____	2	E=>SE	2	Metal	Low-E Double	Yes	0.3	0.2	N	36.0 ft²	26 ft 8 in	0 ft 6 in	None	None
_____	3	N=>NE	3	Metal	Low-E Double	Yes	0.3	0.2	N	80.0 ft²	9 ft 4 in	0 ft 6 in	None	None
_____	4	N=>NE	3	Metal	Low-E Double	Yes	0.3	0.2	N	32.0 ft²	9 ft 4 in	0 ft 6 in	None	None
_____	5	E=>SE	4	Metal	Low-E Double	Yes	0.3	0.2	N	12.5 ft²	1 ft 6 in	1 ft 6 in	None	None
_____	6	E=>SE	4	Metal	Low-E Double	Yes	0.3	0.2	N	6.0 ft²	1 ft 6 in	1 ft 6 in	None	None
_____	7	S=>SW	6	Metal	Low-E Double	Yes	0.3	0.2	N	4.0 ft²	1 ft 6 in	1 ft 6 in	None	None
_____	8	S=>SW	7	Metal	Low-E Double	Yes	0.3	0.2	N	12.0 ft²	1 ft 6 in	1 ft 6 in	None	None
_____	9	S=>SW	9	Metal	Low-E Double	Yes	0.3	0.2	N	32.0 ft²	8 ft 2 in	2 ft 0 in	None	None
_____	10	S=>SW	11	Metal	Low-E Double	Yes	0.3	0.2	N	36.0 ft²	1 ft 6 in	1 ft 6 in	None	None
_____	11	W=>NW	14	Metal	Low-E Double	Yes	0.3	0.2	N	30.0 ft²	1 ft 6 in	1 ft 6 in	None	None
_____	12	W=>NW	14	Metal	Low-E Double	Yes	0.3	0.2	N	4.0 ft²	1 ft 6 in	1 ft 6 in	None	None

FORM R405-2017

INPUT SUMMARY CHECKLIST REPORT

GARAGE

√	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
_____	1	505.064 ft²	505.064 ft²	67 ft	9 ft	1

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000413	2200	120.78	227.14	.1648	7

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump/	None	HSPF:8.8	36 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/	None	SEER: 15	36 kBtu/hr	1080 cfm	0.75	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Garage	0.95	50 gal	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM

√	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
_____	None	None			ft²		

DUCTS

√	#	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
_____	1	Attic	6	406.4 ft	Attic	101.6 ft	Default Leakage	main	(Default)	(Default)			1	1

FORM R405-2017

INPUT SUMMARY CHECKLIST REPORT

TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[ ]

Thermostat Schedule: HERS 2006 Reference

Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
Default(8 lbs/sq.ft.	0 ft²	0 ft	0.3	main

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 100

The lower the Energy Performance Index, the more efficient the home.

1. New home or, addition	1. New (From Plans)
2. Single-family or multiple-family	2. Single-family
3. No. of units (if multiple-family)	3. 1
4. Number of bedrooms	4. 3
5. Is this a worst case? (yes/no)	5. Yes
6. Conditioned floor area (sq. ft.)	6. 2032
7. Windows, type and area	
a) U-factor:(weighted average)	7a. 0.300
b) Solar Heat Gain Coefficient (SHGC)	7b. 0.200
c) Area	7c. 329.5
8. Skylights	
a) U-factor:(weighted average)	8a. NA
b) Solar Heat Gain Coefficient (SHGC)	8b. NA
9. Floor type, insulation level:	
a) Slab-on-grade (R-value)	9a. 0.0
b) Wood, raised (R-value)	9b.
c) Concrete, raised (R-value)	9c.
10. Wall type and insulation:	
A. Exterior:	
1. Wood frame (Insulation R-value)	10A1. 13.0
2. Masonry (Insulation R-value)	10A2.
B. Adjacent:	
1. Wood frame (Insulation R-value)	10B1. 13.0
2. Masonry (Insulation R-value)	10B2.
11. Ceiling type and insulation level	
a) Under attic	11a. 38.0
b) Single assembly	11b.
c) Knee walls/skylight walls	11c.
d) Radiant barrier installed	11d. No
12. Ducts, location & insulation level	
a) Supply ducts	R 6.0
b) Return ducts	R 6.0
c) AHU location	main
13. Cooling system:	Capacity 36.0
a) Split system	SEER
b) Single package	SEER
c) Ground/water source	SEER/COP
d) Room unit/PTAC	EER
e) Other	15.0
14. Heating system:	Capacity 36.0
a) Split system heat pump	HSPF
b) Single package heat pump	HSPF
c) Electric resistance	COP
d) Gas furnace, natural gas	AFUE
e) Gas furnace, LPG	AFUE
f) Other	8.80
15. Water heating system	
a) Electric resistance	EF 0.95
b) Gas fired, natural gas	EF
c) Gas fired, LPG	EF
d) Solar system with tank	EF
e) Dedicated heat pump with tank	EF
f) Heat recovery unit	HeatRec%
g) Other	
16. HVAC credits claimed (Performance Method)	
a) Ceiling fans	
b) Cross ventilation	No
c) Whole house fan	No
d) Multizone cooling credit	
e) Multizone heating credit	
f) Programmable thermostat	Yes

*Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

I certify that this home has complied with the Florida Building Code, Energy Conservation, through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL display card will be completed based on installed code compliant features.

Builder Signature: _____ Date: 7/23/19

Address of New Home: 261 SW Highpoint Gln City/FL Zip: Lake City, FL 32024

Florida Building Code, Energy Conservation, 6th Edition (2017)
Mandatory Requirements for Residential Performance, Prescriptive and ERI Methods

ADDRESS:	Permit Number:
Lake City , FL ,	

MANDATORY REQUIREMENTS See individual code sections for full details.

✓

SECTION R401 GENERAL

☐ **R401.3 Energy Performance Level (EPL) display card (Mandatory).** The building official shall require that an energy performance level (EPL) display card be completed and certified by the builder to be accurate and correct before final approval of the building for occupancy. Florida law (Section 553.9085, Florida Statutes) requires the EPL display card to be included as an addendum to each sales contract for both presold and nonpresold residential buildings. The EPL display card contains information indicating the energy performance level and efficiencies of components installed in a dwelling unit. The building official shall verify that the EPL display card completed and signed by the builder accurately reflects the plans and specifications submitted to demonstrate code compliance for the building. A copy of the EPL display card can be found in Appendix RD.

☐ **R402.4 Air leakage (Mandatory).** The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.5.

Exception: Dwelling units of R-2 Occupancies and multiple attached single family dwellings shall be permitted to comply with Section C402.5.

☐ **R402.4.1 Building thermal envelope.** The building thermal envelope shall comply with Sections R402.4.1.1 and R402.4.1.2. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.

☐ **R402.4.1.1 Installation.** The components of the building thermal envelope as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction. Where required by the code official, an approved third party shall inspect all components and verify compliance.

☐ **R402.4.1.2 Testing.** The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

Exception: Testing is not required for additions, alterations, renovations, or repairs, of the building thermal envelope of existing buildings in which the new construction is less than 85 percent of the building thermal envelope.

During testing:
1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.

☐ **R402.4.2 Fireplaces.** New wood-burning fireplaces shall have tight-fitting flue dampers or doors, and outdoor combustion air. Where using tight-fitting doors on factory-built fireplaces listed and labeled in accordance with UL 127, the doors shall be tested and listed for the fireplace. Where using tight-fitting doors on masonry fireplaces, the doors shall be listed and labeled in accordance with UL 907.

☐ **R402.4.3 Fenestration air leakage.** Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m2), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m2), when tested according to NFRC 400 or AAMA/ WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and listed and labeled by the manufacturer.

Exception: Site-built windows, skylights and doors.

MANDATORY REQUIREMENTS - (Continued)

☐ **R402.4.4 Rooms containing fuel-burning appliances.** In Climate Zones 3 through 8, where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening shall be located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope. Such rooms shall be sealed and insulated in accordance with the envelope requirements of Table R402.1.2, where the walls, floors and ceilings shall meet not less than the basement wall R-value requirement. The door into the room shall be fully gasketed and any water lines and ducts in the room insulated in accordance with Section R403. The combustion air duct shall be insulated where it passes through conditioned space to a minimum of R-8.

Exceptions:

1. Direct vent appliances with both intake and exhaust pipes installed continuous to the outside.
2. Fireplaces and stoves complying with Section R402.4.2 and Section R1006 of the Florida Building Code, Residential.

☐ **R402.4.5 Recessed lighting.** Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as having an air leakage rate not more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

SECTION R403 SYSTEMS

R403.1 Controls.

☐ **R403.1.1 Thermostat provision (Mandatory).** At least one thermostat shall be provided for each separate heating and cooling system.

☐ **R403.1.3 Heat pump supplementary heat (Mandatory).** Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

☐ **R403.3.2 Sealing (Mandatory)** All ducts, air handlers, filter boxes and building cavities that form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section C403.2.9.2 of the Commercial Provisions of this code and shall be shown to meet duct tightness criteria below.

Duct tightness shall be verified by testing in accordance with ANSI/RESNET/ICC 380 by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i), Florida Statutes, to be "substantially leak free" in accordance with Section R403.3.3.

☐ **R403.3.2.1 Sealed air handler.** Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the design airflow rate when tested in accordance with ASHRAE 193.

☐ **R403.3.3 Duct testing (Mandatory).** Ducts shall be pressure tested to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manuf air handler enclosure if installed at the time of the test. All registers shall be taped or otherwise sealed during the test.
2. Postconstruction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.

Exceptions:

1. A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.
2. Duct testing is not mandatory for buildings complying by Section 405 of this code.

A written report of the results of the test shall be signed by the party conducting the test and provided to the code official.

☐ **R403.3.5 Building cavities (Mandatory).** Building framing cavities shall not be used as ducts or plenums.

☐ **R403.4 Mechanical system piping insulation (Mandatory).** Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.

☐ **R403.4.1 Protection of piping insulation.** Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

☐ **R403.5.1 Heated water circulation and temperature maintenance systems (Mandatory)** Heated water circulation systems shall be in accordance with Section R403.5.1.1. Heat trace temperature maintenance systems shall be in accordance with Section R403.5.1.2. Automatic controls, temperature sensors and pumps shall be accessible. Manual controls shall be readily accessible.

☐ **R403.5.1.1 Circulation systems.** Heated water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe or a cold water supply pipe. Gravity and thermosiphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.

☐ **R403.5.1.2 Heat trace systems.** Electric heat trace systems shall comply with IEEE 515.1 or UL 515. Controls for such systems shall automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping in accordance with the times when heated water is used in the occupancy.

MANDATORY REQUIREMENTS - (Continued)

☐ **R403.5.5 Heat traps (Mandatory).** Storage water heaters not equipped with integral heat traps and having vertical pipe risers shall have heat traps installed on both the inlets and outlets. External heat traps shall consist of either a commercially available heat trap or a downward and upward bend of at least 3 ½ inches (89 mm) in the hot water distribution line and cold water line located as close as possible to the storage tank.

R403.5.6 Water heater efficiencies (Mandatory).

☐ **R403.5.6.1.1 Automatic controls.** Service water-heating systems shall be equipped with automatic temperature controls capable of adjustment from the lowest to the highest acceptable temperature settings for the intended use. The minimum temperature setting range shall be from 100°F to 140°F (38°C to 60°C).

☐ **R403.5.6.1.2 Shut down.** A separate switch or a clearly marked circuit breaker shall be provided to permit the power supplied to electric service systems to be turned off. A separate valve shall be provided to permit the energy supplied to the main burner(s) of combustion types of service water-heating systems to be turned off.

☐ **R403.5.6.2 Water-heating equipment.** Water-heating equipment installed in residential units shall meet the minimum efficiencies of Table C404.2 in Chapter 4 of the Florida Building Code, Energy Conservation, Commercial Provisions, for the type of equipment installed. Equipment used to provide heating functions as part of a combination system shall satisfy all stated requirements for the appropriate water-heating category. Solar water heaters shall meet the criteria of Section R403.5.6.2.1.

☐ **R403.5.6.2.1 Solar water-heating systems.** Solar systems for domestic hot water production are rated by the annual solar energy factor of the system. The solar energy factor of a system shall be determined from the Florida Solar Energy Center Directory of Certified Solar Systems. Solar collectors shall be tested in accordance with ISO Standard 9806, Test Methods for Solar Collectors, and SRCC Standard TM-1, Solar Domestic Hot Water System and Component Test Protocol. Collectors in installed solar water-heating systems should meet the following criteria:

1. Be installed with a tilt angle between 10 degrees and 40 degrees of the horizontal; and
2. Be installed at an orientation within 45 degrees of true south.

☐ **R403.6 Mechanical ventilation (Mandatory).** The building shall be provided with ventilation that meets the requirements of the Florida Building Code, Residential, or Florida Building Code, Mechanical, as applicable, or with other approved means of ventilation including: Natural, Infiltration or Mechanical means. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

☐ **R403.6.1 Whole-house mechanical ventilation system fan efficacy.** When installed to function as a whole-house mechanical ventilation system, fans shall meet the efficacy requirements of Table R403.6.1.

Exception: Where whole-house mechanical ventilation fans are integral to tested and listed HVAC equipment, they shall be powered by an electronically commutated motor.

☐ **R403.6.2 Ventilation air.** Residential buildings designed to be operated at a positive indoor pressure or for mechanical ventilation shall meet the following criteria:

1. The design air change per hour minimums for residential buildings in ASHRAE 62.2, Ventilation for Acceptable Indoor Air Quality, shall be the maximum rates allowed for residential applications.
2. No ventilation or air-conditioning system make-up air shall be provided to conditioned space from attics, crawlspaces, attached enclosed garages or outdoor spaces adjacent to swimming pools or spas.
3. If ventilation air is drawn from enclosed space(s), then the walls of the space(s) from which air is drawn shall be insulated to a minimum of R-11 and the ceiling shall be insulated to a minimum of R-19, space permitting, or R-10 otherwise.

R403.7 Heating and cooling equipment (Mandatory).

☐ **R403.7.1 Equipment sizing.** Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on the equipment loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies, based on building loads for the directional orientation of the building. The manufacturer and model number of the outdoor and indoor units (if split system) shall be submitted along with the sensible and total cooling capacities at the design conditions described in Section R302.1. This Code does not allow designer safety factors, provisions for future expansion or other factors that affect equipment sizing. System sizing calculations shall not include loads created by local intermittent mechanical ventilation such as standard kitchen and bathroom exhaust systems. New or replacement heating and cooling equipment shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed.

TABLE R403.6.1
WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICACY

FAN LOCATION	AIRFLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY [a] (CFM/WATT)	AIRFLOW RATE MAXIMUM (CFM)
Range hoods	Any	2.8 cfm/watt	Any
In-line fan	Any	2.8 cfm/watt	Any
Bathroom, utility room	10	1.4 cfm/watt	<90
Bathroom, utility room	90	2.8 cfm/watt	Any

For SI: 1 cfm = 28.3 L/min. a. When tested in accordance with HVI Standard 916

MANDATORY REQUIREMENTS - (Continued)

☐ **R403.7.1.1 Cooling equipment capacity.** Cooling only equipment shall be selected so that its total capacity is not less than the calculated total load but not more than 1.15 times greater than the total load calculated according to the procedure selected in Section 403.7, or the closest available size provided by the manufacturer's product lines. The corresponding latent capacity of the equipment shall not be less than the calculated latent load.

The published value for AHRI total capacity is a nominal, rating-test value and shall not be used for equipment sizing. Manufacturer's expanded performance data shall be used to select cooling-only equipment. This selection shall be based on the outdoor design dry-bulb temperature for the load calculation (or entering water temperature for water-source equipment), the blower CFM provided by the expanded performance data, the design value for entering wet-bulb temperature and the design value for entering dry-bulb temperature.

Design values for entering wet-bulb and dry-bulb temperatures shall be for the indoor dry bulb and relative humidity used for the load calculation and shall be adjusted for return side gains if the return duct(s) is installed in an unconditioned space.

Exceptions:

1. Attached single- and multiple-family residential equipment sizing may be selected so that its cooling capacity is less than the calculated total sensible load but not less than 80 percent of that load.
2. When signed and sealed by a Florida-registered engineer, in attached single- and multiple-family units, the capacity of equipment may be sized in accordance with good design practice.

R403.7.1.2 Heating equipment capacity.

☐ **R403.7.1.2.1 Heat pumps.** Heat pump sizing shall be based on the cooling requirements as calculated according to Section R403.7.1.1, and the heat pump total cooling capacity shall not be more than 1.15 times greater than the design cooling load even if the design heating load is 1.15 times greater than the design cooling load.

☐ **R403.7.1.2.2 Electric resistance furnaces.** Electric resistance furnaces shall be sized within 4 kW of the design requirements calculated according to the procedure selected in Section R403.7.1.

☐ **R403.7.1.2.3 Fossil fuel heating equipment.** The capacity of fossil fuel heating equipment with natural draft atmospheric burners shall not be less than the design load calculated in accordance with Section R403.7.1.

☐ **R403.7.1.3 Extra capacity required for special occasions.** Residences requiring excess cooling or heating equipment capacity on an intermittent basis, such as anticipated additional loads caused by major entertainment events, shall have equipment sized or controlled to prevent continuous space cooling or heating within that space by one or more of the following options:

1. A separate cooling or heating system is utilized to provide cooling or heating to the major entertainment areas.
2. A variable capacity system sized for optimum performance during base load periods is utilized.

☐ **R403.8 Systems serving multiple dwelling units (Mandatory).** Systems serving multiple dwelling units shall comply with Sections C403 and C404 of the IECC—Commercial Provisions in lieu of Section R403.

☐ **R403.9 Snow melt and ice system controls (Mandatory)** Snow- and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F (10°C), and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F (4.8°C).

☐ **R403.10 Pools and permanent spa energy consumption (Mandatory).** The energy consumption of pools and permanent spas shall be in accordance with Sections R403.10.1 through R403.10.5.

☐ **R403.10.1 Heaters.** The electric power to heaters shall be controlled by a readily accessible on-off switch that is an integral part of the heater mounted on the exterior of the heater, or external to and within 3 feet (914 mm) of the heater. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater. Gas-fired heaters shall not be equipped with continuously burning ignition pilots.

☐ **R403.10.2 Time switches.** Time switches or other control methods that can automatically turn off and on according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Pumps that operate solar- and waste-heat-recovery pool heating systems.
3. Where pumps are powered exclusively from on-site renewable generation.

☐ **R403.10.3 Covers.** Outdoor heated swimming pools and outdoor permanent spas shall be equipped with a vapor-retardant cover on or at the water surface or a liquid cover or other means proven to reduce heat loss.

Exception: Where more than 70 percent of the energy for heating, computed over an operation season, is from site-recovered energy, such as from a heat pump or solar energy source, covers or other vapor-retardant means shall not be required.

☐ **R403.10.4 Gas- and oil-fired pool and spa heaters.** All gas- and oil-fired pool and spa heaters shall have a minimum thermal efficiency of 82 percent for heaters manufactured on or after April 16, 2013, when tested in accordance with ANSI Z 21.56. Pool heaters fired by natural or LP gas shall not have continuously burning pilot lights.

☐ **R403.10.5 Heat pump pool heaters.** Heat pump pool heaters shall have a minimum COP of 4.0 when tested in accordance with AHRI 1160, Table 2, Standard Rating Conditions-Low Air Temperature. A test report from an independent laboratory is required to verify procedure compliance. Geothermal swimming pool heat pumps are not required to meet this standard.

☐ **R403.11 Portable spas (Mandatory).** The energy consumption of electric-powered portable spas shall be controlled by the requirements of APSP-14.

SECTION R404

ELECTRICAL POWER AND LIGHTING SYSTEMS

☐ **R404.1 Lighting equipment (Mandatory).** Not less than 75 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps or not less than 75 percent of the permanently installed lighting fixtures shall contain only high-efficacy lamps.

Exception: Low-voltage lighting.

R404.1.1 Lighting equipment (Mandatory). Fuel gas lighting systems shall not have continuously burning pilot lights.

2017 - AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

TABLE 402.4.1.1
AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

				CHECK
Project Name:	190842 Foxx res	Builder Name:	Bryan Zecher Homes	
Street:		Permit Office:		
City, State, Zip:	Lake City , FL ,	Permit Number:		
Owner:	Foxx Res	Jurisdiction:		
Design Location:	FL, Gainesville			

COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA	
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.	
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.	
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of R-3 per inch minimum. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.	
Windows, skylights and doors	The space between window/door jambs and framing, and skylights and framing shall be sealed.		
Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.	
Floors (including above-garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking, or floor framing cavity insulation shall be permitted to be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.	
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Where provided instead of floor insulation, insulation shall be permanently attached to the crawlspace	
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.		
Narrow cavities		Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity spaces.	
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.		
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the drywall.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.	
Plumbing and wiring		Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.	
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate them from the showers and tubs.	Exterior walls adjacent to showers and tubs shall be insulated.	
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.		
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the sub-floor or drywall.		
Concealed sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.		

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

Envelope Leakage Test Report (Blower Door Test)

Residential Prescriptive, Performance or ERI Method Compliance
2017 Florida Building Code, Energy Conservation, 6th Edition

Jurisdiction:	Permit #:

Job Information

Builder: Bryan Zecher Homes Community: Lot: NA

Address:

City: Lake City State: FL Zip:

Air Leakage Test Results *Passing results must meet either the Performance, Prescriptive, or ERI Method*

◯ **PRESCRIPTIVE METHOD**-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2.

◯ **PERFORMANCE or ERI METHOD**-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2017 (Performance) or R406-2017 (ERI), section labeled as infiltration, sub-section ACH50.

ACH(50) specified on Form R405-2017-Energy Calc (Performance) or R406-2017 (ERI): 7.000

_____ x 60 ÷ 18857 _____ = _____
CFM(50) Building Volume ACH(50)

☐ **PASS**

☐ When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.

Method for calculating building volume:

◯ Retrieved from architectural plans

● Code software calculated

◯ Field measured and calculated

R402.4.1.2 Testing. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), *Florida Statues.*or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the*code official.* Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope.*

During testing:
1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.

Testing Company

Company Name: _____ Phone: _____

I hereby verify that the above Air Leakage results are in accordance with the 2017 6th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above.

Signature of Tester: _____ Date of Test: _____

Printed Name of Tester: _____

License/Certification #: _____ Issuing Authority: _____

Residential System Sizing Calculation

Summary

Foxx Res

Lake City, FL

Project Title:
190842 Foxx res

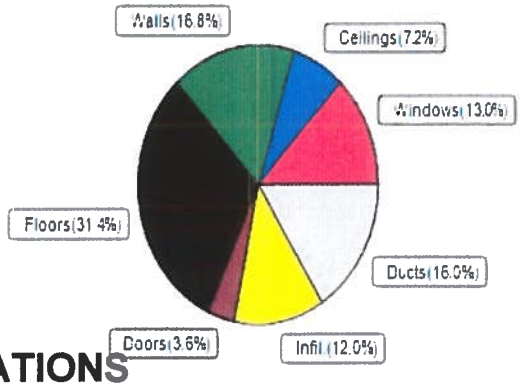
2019-07-23

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M) Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature(TMY3 99%)	30	F	Summer design temperature(TMY3 99%)	94	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	40	F	Summer temperature difference	19	F
Total heating load calculation	**30356**	**Btuh**	**Total cooling load calculation**	**29150**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	118.6	36000	Sensible (SHR = 0.75)	109.8	27000
Heat Pump + Auxiliary(0.0kW)	118.6	36000	Latent	197.1	9000
			Total (Electric Heat Pump)	123.5	36000

WINTER CALCULATIONS

Winter Heating Load (for 2032 sqft)

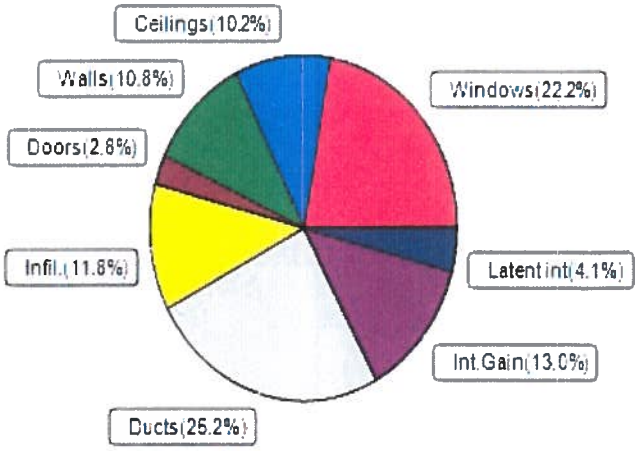
Load component			Load	
Window total	330	sqft	3954	Btuh
Wall total	1434	sqft	5092	Btuh
Door total	68	sqft	1088	Btuh
Ceiling total	2160	sqft	2193	Btuh
Floor total	2032	sqft	9534	Btuh
Infiltration	83	cfm	3629	Btuh
Duct loss			4866	Btuh
Subtotal			**30356**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**30356**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2032 sqft)

Load component			Load	
Window total	330	sqft	6469	Btuh
Wall total	1434	sqft	3135	Btuh
Door total	68	sqft	816	Btuh
Ceiling total	2160	sqft	2960	Btuh
Floor total			0	Btuh
Infiltration	62	cfm	1293	Btuh
Internal gain			3780	Btuh
Duct gain			6132	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Blower Load			0	Btuh
Total sensible gain			**24585**	**Btuh**
Latent gain(ducts)			1220	Btuh
Latent gain(infiltration)			2145	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1200	Btuh
Total latent gain			**4565**	**Btuh**
TOTAL HEAT GAIN			**29150**	**Btuh**



8th Edition

EnergyGauge® System Sizing
PREPARED BY: Evan Beamsley
DATE: 2019-07-23

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Foxx Res

Project Title:
190842 Foxx res

Lake City, FL

Building Type: User

2019-07-23

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 F (TMY3 99%)
This calculation is for Worst Case. The house has been rotated 315 degrees.

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft) X	HTM=	Load
1	2, NFRC 0.20	Metal	0.30	NW	45.0	12.0	540 Btuh
2	2, NFRC 0.20	Metal	0.30	NE	36.0	12.0	432 Btuh
3	2, NFRC 0.20	Metal	0.30	NW	80.0	12.0	960 Btuh
4	2, NFRC 0.20	Metal	0.30	NW	32.0	12.0	384 Btuh
5	2, NFRC 0.20	Metal	0.30	NE	12.5	12.0	150 Btuh
6	2, NFRC 0.20	Metal	0.30	NE	6.0	12.0	72 Btuh
7	2, NFRC 0.20	Metal	0.30	SE	4.0	12.0	48 Btuh
8	2, NFRC 0.20	Metal	0.30	SE	12.0	12.0	144 Btuh
9	2, NFRC 0.20	Metal	0.30	SE	32.0	12.0	384 Btuh
10	2, NFRC 0.20	Metal	0.30	SE	36.0	12.0	432 Btuh
11	2, NFRC 0.20	Metal	0.30	SW	30.0	12.0	360 Btuh
12	2, NFRC 0.20	Metal	0.30	SW	4.0	12.0	48 Btuh
	Window Total				329.5(sqft)		3954 Btuh

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	201	3.55	714 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	48	3.55	170 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	96	3.55	341 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	303	3.55	1074 Btuh
5	Frame - Wood	- Ext	(0.089)	13.0/0.0	70	3.55	247 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	12	3.55	43 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	47	3.55	165 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	18	3.55	64 Btuh
9	Frame - Wood	- Ext	(0.089)	13.0/0.0	33	3.55	118 Btuh
10	Frame - Wood	- Ext	(0.089)	13.0/0.0	18	3.55	64 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	71	3.55	250 Btuh
12	Frame - Wood	- Adj	(0.089)	13.0/0.0	30	3.55	107 Btuh
13	Frame - Wood	- Adj	(0.089)	13.0/0.0	163	3.55	579 Btuh
14	Frame - Wood	- Ext	(0.089)	13.0/0.0	326	3.55	1157 Btuh
	Wall Total				1434(sqft)		5092 Btuh

Doors	Type	Storm	Ueff.	Area X	HTM=	Load
1	Insulated - Exterior,	n	(0.400)	16	16.0	256 Btuh
2	Insulated - Exterior,	n	(0.400)	16	16.0	256 Btuh
3	Insulated - Exterior,	n	(0.400)	16	16.0	256 Btuh
4	Insulated - Garage,	n	(0.400)	20	16.0	320 Btuh
	Door Total			68(sqft)		1088Btuh

Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shing	(0.025)	38.0/0.0	2160	1.0	2193 Btuh
	Ceiling Total			2160(sqft)		2193Btuh

Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(1.180)	0.0	202.0 ft(perim.)	47.2	9534 Btuh
	Floor Total			2032 sqft		9534 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Foxx Res
Lake City, FL

Project Title:
190842 Foxx res
Building Type: User

2019-07-23

	Envelope Subtotal:	21861 Btuh
Infiltration	Type: Natural; Wholehouse: 0.26; ACH: 0.26; Volume(cuft): 18857; Wall Ratio: 1.00; CFM=: 82.9	3629 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.191)	4866 Btuh
All Zones	**Sensible Subtotal All Zones**	**30356 Btuh**

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	30356 Btuh
	Ventilation Sensible Heat Loss	0 Btuh
	Total Heat Loss	30356 Btuh

EQUIPMENT

1. Electric Heat Pump	#	36000 Btuh

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)
U - (Window U-Factor)
HTM - (ManualJ Heat Transfer Multiplier)

Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Foxx Res

Project Title:
190842 Foxx res

Lake City, FL

2019-07-23

Reference City: Gainesville, FL Temperature Difference: 19.0F(TMY3 99%) Humidity difference: 51gr.
This calculation is for Worst Case. The house has been rotated 315 degrees.

Component Loads for Whole House

Window	Type* Panes	SHGC	U	InSh	IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2 NFRC	0.20, 0.30		No	No	NW	1.5ft.	1.5ft.	45.0	0.0	45.0	10	19	861 Btuh
2	2 NFRC	0.20, 0.30		No	No	NE	26.7f	0.5ft.	36.0	0.0	36.0	10	19	689 Btuh
3	2 NFRC	0.20, 0.30		No	No	NW	9.3ft.	0.5ft.	80.0	0.0	80.0	10	19	1531 Btuh
4	2 NFRC	0.20, 0.30		No	No	NW	9.3ft.	0.5ft.	32.0	0.0	32.0	10	19	612 Btuh
5	2 NFRC	0.20, 0.30		No	No	NE	1.5ft.	1.5ft.	12.5	0.0	12.5	10	19	239 Btuh
6	2 NFRC	0.20, 0.30		No	No	NE	1.5ft.	1.5ft.	6.0	0.0	6.0	10	19	115 Btuh
7	2 NFRC	0.20, 0.30		No	No	SE	1.5ft.	1.5ft.	4.0	1.9	2.1	10	20	61 Btuh
8	2 NFRC	0.20, 0.30		No	No	SE	1.5ft.	1.5ft.	12.0	1.9	10.1	10	20	221 Btuh
9	2 NFRC	0.20, 0.30		No	No	SE	6.2ft.	2.0ft.	32.0	32.0	0.0	10	20	317 Btuh
10	2 NFRC	0.20, 0.30		No	No	SE	1.5ft.	1.5ft.	36.0	5.8	30.2	10	20	662 Btuh
11	2 NFRC	0.20, 0.30		No	No	SW	1.5ft.	1.5ft.	30.0	5.8	24.2	10	20	542 Btuh
12	2 NFRC	0.20, 0.30		No	No	SW	1.5ft.	1.5ft.	4.0	3.9	0.1	10	20	41 Btuh
	Excursion													577 Btuh
	Window Total								330 (sqft)					6469 Btuh

Walls	Type	U-Value	R-Value Cav/Sheath	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	0.09	13.0/0.0	201.0	2.3	455 Btuh
2	Frame - Wood - Ext	0.09	13.0/0.0	48.0	2.3	109 Btuh
3	Frame - Wood - Ext	0.09	13.0/0.0	96.0	2.3	217 Btuh
4	Frame - Wood - Ext	0.09	13.0/0.0	302.5	2.3	685 Btuh
5	Frame - Wood - Ext	0.09	13.0/0.0	69.5	2.3	157 Btuh
6	Frame - Wood - Ext	0.09	13.0/0.0	12.0	2.3	27 Btuh
7	Frame - Wood - Ext	0.09	13.0/0.0	46.5	2.3	105 Btuh
8	Frame - Wood - Ext	0.09	13.0/0.0	18.0	2.3	41 Btuh
9	Frame - Wood - Ext	0.09	13.0/0.0	33.2	2.3	75 Btuh
10	Frame - Wood - Ext	0.09	13.0/0.0	18.0	2.3	41 Btuh
11	Frame - Wood - Ext	0.09	13.0/0.0	70.5	2.3	160 Btuh
12	Frame - Wood - Adj	0.09	13.0/0.0	30.0	1.7	51 Btuh
13	Frame - Wood - Adj	0.09	13.0/0.0	163.0	1.7	275 Btuh
14	Frame - Wood - Ext	0.09	13.0/0.0	326.0	2.3	738 Btuh
	Wall Total			1434 (sqft)		3135 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	16.0	12.0	192 Btuh
2	Insulated - Exterior	16.0	12.0	192 Btuh
3	Insulated - Exterior	16.0	12.0	192 Btuh
4	Insulated - Garage	20.0	12.0	240 Btuh
	Door Total	68 (sqft)		816 Btuh

Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	0.025	38.0/0.0	2160.0	1.37	2960 Btuh
	Ceiling Total			2160 (sqft)		2960 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	2032 (ft-perimeter)	0.0	0 Btuh
	Floor Total		2032.0 (sqft)		0 Btuh

		Envelope Subtotal:	13380 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Foxx Res | Project Title: 190842 Foxx res | Climate:FL_GAINESVILLE_REGIONAL_A

Lake City, FL

2019-07-23

Infiltration	Type Natural	Average ACH 0.20	Volume(cuft) 18857	Wall Ratio 1		CFM= 62.1	Load 1293	Btuh
Internal gain		Occupants 6	Btuh/occupant X 230		+	Appliance 2400	Load 3780	Btuh
					Sensible Envelope Load:		18453	Btuh
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic)				(DGM of 0.332)		6132	Btuh
					Sensible Load All Zones		**24585**	**Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Foxx Res

Project Title: 190842 Foxx res

Climate:FL_GAINESVILLE_REGIONAL_A

Lake City, FL

2019-07-23

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**18453 Btuh**
	Sensible Duct Load	6132 Btuh
	Total Sensible Zone Loads	**24585 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**24585 Btuh**
	Latent infiltration gain (for 51 gr. humidity difference)	2145 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1220 Btuh
	Latent occupant gain (6.0 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**4565 Btuh**
	TOTAL GAIN	**29150 Btuh**

EQUIPMENT

1. Central Unit	#	36000 Btuh

*Key: Window types (Panes - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
For Draperies: Assume medium weave, half closed
For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half(½))
(Ornt - compass orientation)

Version 8