

## Columbia County New Building Permit Application

CCH113

For Office Use Only Application # 44480 Date Received 2/10 By MG Permit # 39423  
Zoning Official LW/CH Date 2-12-20 Flood Zone X Land Use Ag Zoning A-3  
FEMA Map # \_\_\_\_\_ Elevation \_\_\_\_\_ MFE \_\_\_\_\_ River \_\_\_\_\_ Plans Examiner T.C. Date 2-19-20  
Comments Ref: SFUP 1923  
☒ NOC ☒ EH ☒ Deed or PA ☒ Site Plan ☐ State Road Info ☒ Well letter ☒ 911 Sheet ☒ Parent Parcel # 00322-003  
☐ 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. 20-0063 OR City Water ☒ Fax E-MAIL DUPREEJ.CCM@GMAIL.COMApplicant (Who will sign/pickup the permit) LAMAR DUPREE Phone 386-867-0090Address 406 SW THERESA COURT LAKE CITY, FLA. 32025Owners Name WHITNEY E BLAKE GRAHAM Phone 386-623-1643911 Address 2723 SW KOONVILLE AVE, LAKE CITY, FLA. 32024Contractors Name JOSEPH L. DUPREE JR Phone 386-867-5697Address 1944 E. Duval Street, Lake City, FLA. 32055Contractor Email DUPREEJ.CCM@GMAIL.COM \*\*\*Include to get updates on this job.Fee Simple Owner Name & Address WHITNEY E BLAKE GRAHAM 2723 SW KOONVILLE AVE, LAKE CITY, FLA. 32024Bonding Co. Name & Address N/AArchitect/Engineer Name & Address GARY GILL PE# 51942 426 S.W. COMMERCE DR 130N LAKE CITY, FLA. 32025Mortgage Lenders Name & Address N/ACircle the correct power company ☒ FL Power & Light ☐ Clay Elec. ☐ Suwannee Valley Elec. ☐ Duke EnergyProperty ID Number 00322-008 Estimated Construction Cost 110,000.00Subdivision Name N/A Lot \_\_\_\_\_ Block \_\_\_\_\_ Unit \_\_\_\_\_ Phase \_\_\_\_\_Driving Directions from a Major Road WEST ON US 90 TO PINE MOUNT ROAD TURN LEFT GO 5 MILE TO KOONVILLE AVE. (CAUTION LIGHT) TURN RIGHT 1/4 MILE ON RIGHT.Construction of HOME ☐ Commercial OR ☒ ResidentialProposed Use/Occupancy HOME Number of Existing Dwellings on Property NONEIs the Building Fire Sprinkled? NO If Yes, blueprints included N/A Or Explain N/ACircle Proposed ☐ Culvert Permit or ☐ Culvert Waiver or ☐ D.O.T. Permit or ☒ Have an Existing DriveActual Distance of Structure from Property Lines - Front 30' Side 40' Side 105' Rear 130'Number of Stories ONE Heated Floor Area 2000 S.F. Total Floor Area 3715 S.F. Acreage 1-ACREZoning Applications applied for (Site & Development Plan, Special Exception, etc.) N/A

850-510-8257

**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.

Blake Graham

Print Owners Name

Blake Graham

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.

AS OUB

Contractor's Signature

Contractor's License Number CGC060631  
Columbia County  
Competency Card Number 444 ✓

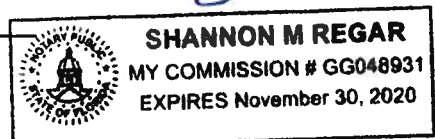
Affirmed under penalty of perjury to by the Contractor and subscribed before me this 27 day of Jan 20 20

Personally known ☒ or Produced Identification

Shannon M Regar

State of Florida Notary Signature (For the Contractor)

SEAL:



## Columbia County Property Appraiser

Jeff Hampton

## 2020 Working Values

updated: 1/6/2020

Parcel: &lt;&lt; 02-4S-15-00322-008 &gt;&gt;

Aerial Viewer Pictometry Google Maps

## Owner &amp; Property Info

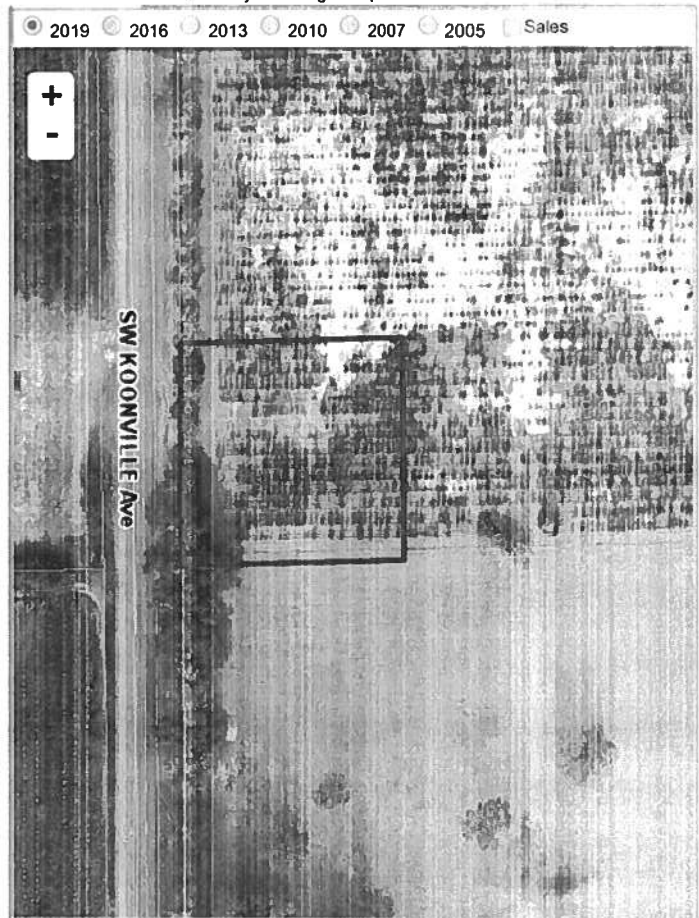
Owner	GRAHAM WHITNEY DUPREE & BLAKE WESTON GRAHAM C/O JOSEPH L DUPREE 2543 SW KOONVILLE AVE LAKE CITY, FL 32024		
Site	KOONVILLE AVE, LAKE CITY		
Description*	S 210 FT OF THE W 210 FT OF NE 1/4 OF SW 1/4 LYING EAST OF E R/W OF CR-252A. WD 1360-1822, WD 1394-221		
Area	1.01 AC	S/T/R	02-4S-15
Use Code**	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 &amp; Zoning office for specific zoning information.

## Property &amp; Assessment Values

2019 Certified Values	2020 Working Values	
There are no 2019 Certified Values for this parcel	Mkt Land (1)	\$9,612
	Ag Land (0)	\$0
	Building (0)	\$0
	XFOB (0)	\$0
	Just	\$9,612
	Class	\$0
	Appraised	\$9,612
	SOH Cap [?]	\$0
	Assessed	\$9,612
	Exempt	\$0
	Total	county:\$9,612 city:\$9,612
	Taxable	other:\$9,612 school:\$9,612



## Sales History

Sale Date	Sale Price	Book/Page	Deed	V/I	Quality (Codes)	RCode
9/9/2019	\$100	1394/0221	WD	V	U	11

## Building Characteristics

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

## Extra Features &amp; 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)	1.010 AC	1.00/1.00 1.00/1.00	\$9,517	\$9,612

THIS INSTRUMENT PREPARED BY  
AND RETURN TO:

MARLIN M. FEAGLE, ESQUIRE  
MARLIN M. FEAGLE, ATTORNEY AT LAW, P.A.  
153 NE Madison Street  
Post Office Box 1653  
Lake City, Florida 32056-1653  
Florida Bar No. 0173248

The preparer of this instrument has performed  
no title examination nor has the preparer issued  
any title insurance or furnished any opinion  
regarding the title, existence of liens, the  
quantity of lands included, or the location of  
the boundaries. The names, addresses, tax  
identification numbers and legal description  
were furnished by the parties to this instrument.

AH Achmet "A"

Inst: 201912020962 Date: 09/09/2019 Time: 3:22PM  
Page 1 of 2 B: 1394 P: 221, P.DeWitt Cason, Clerk of Court Colum  
County, By: BD  
Deputy ClerkDoc Stamp-Deed: 0.70

### WARRANTY DEED

THIS INDENTURE, made this 9th day of September, 2019, between JOSEPH L. DUPREE, a single person, whose mailing address is 2543 S. W. Koonville, Ave., Florida 32024, party of the first part, Grantor, and WHITNEY DUPREE GRAHAM and her husband BLAKE WESTON GRAHAM, whose mailing address is c/o Joseph L. Dupree, 2543 S. W. Koonville Ave., Florida 32024, party of the second part, Grantee,

### W I T N E S S E T H:

That said Grantor, for and in consideration of the sum of TEN AND NO/100 (\$10.00) DOLLARS, and other good and valuable considerations to said Grantor in hand paid by said Grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said Grantee, and Grantee's heirs, successors and assigns forever, the following described land, situate, lying and being in Columbia County, Florida, to-wit:

The South 210.00 feet of the West 210.00 feet of the NE 1/4 of the SW 1/4 Section 2, Township 4 South, Range 15 East in Columbia County, Florida lying East of the Easterly right of way line of County Road 252 A (Koonville Road). Containing 1.01 acres

Tax Parcel No.: 02-4S-15-00322-003 (Parent Parcel)

**SUBJECT TO** reservations easements and exceptions of record, if any.

**N.B.** Grantee Whitney Dupree Graham is Grantor's daughter.

**TOGETHER WITH** all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

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

**AND** the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of

said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land; that the Grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2018.

**IN WITNESS WHEREOF**, the said Grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered  
in the presence of:

MARLIN FEAGLE  
Witness Signature

MARLIN FEAGLE  
Print or type name

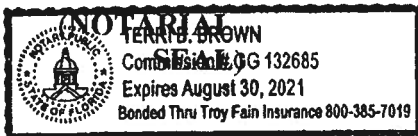
JOSEPH L. DUPREE (SEAL)  
JOSEPH L. DUPREE

Terri B. Brown  
Witness Signature  
Terri B. Brown  
Print or type name

**STATE OF FLORIDA**  
**COUNTY OF COLUMBIA**

The foregoing instrument was acknowledged before me this 9<sup>th</sup> day of September, 2019, by **JOSEPH L. DUPREE** who is personally known to me.

Terri B. Brown  
Notary Public, State of Florida



My Commission Expires:

8/30/2021

# SUBCONTRACTOR VERIFICATION

APPLICATION/PERMIT # 44486 JOB NAME Graham

**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>

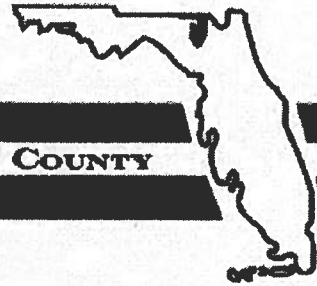
**NOTE:** If this should change prior to completion of the project, it is your responsibility to have a corrected form submitted to our office, before that work has begun.

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

<b>ELECTRICAL</b> <input checked="" type="checkbox"/>	Print Name <u>Marc Matthews</u> Signature <u>[Signature]</u> Company Name: <u>Matthews Electric LLC</u> License #: <u>EC 13005459</u> Phone #: <u>386-344-2029</u>	<b>Need</b> <input type="checkbox"/> Lic <input type="checkbox"/> Liab <input type="checkbox"/> W/C <input type="checkbox"/> EX <input type="checkbox"/> DE
<b>MECHANICAL/</b> <b>A/C</b> <input checked="" type="checkbox"/>	Print Name <u>Harry Mosley</u> Signature <u>[Signature]</u> Company Name: <u>Harry's Heating &amp; AC Inc</u> License #: <u>RA0030316</u> Phone #: <u>386 752-2308</u>	<b>Need</b> <input type="checkbox"/> Lic <input type="checkbox"/> Liab <input type="checkbox"/> W/C <input type="checkbox"/> EX <input type="checkbox"/> DE
<b>PLUMBING/</b> <b>GAS</b> <input checked="" type="checkbox"/>	Print Name <u>Ronald Cochran</u> Signature <u>[Signature]</u> Company Name: <u>Cochran Plumbing Services, LLC</u> License #: <u>CFL1429154</u> Phone #: <u>(386) 208-8080</u>	<b>Need</b> <input type="checkbox"/> Lic <input type="checkbox"/> Liab <input type="checkbox"/> W/C <input type="checkbox"/> EX <input type="checkbox"/> DE
<b>ROOFING</b> <input checked="" type="checkbox"/>	Print Name <u>Robert Fensel</u> Signature <u>[Signature]</u> Company Name: <u>Robbie's Roofing</u> License #: <u>RC 24027319</u> Phone #: <u>(386) 755-5137</u>	<b>Need</b> <input type="checkbox"/> Lic <input type="checkbox"/> Liab <input type="checkbox"/> W/C <input type="checkbox"/> EX <input type="checkbox"/> DE
<b>SHEET METAL</b> <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ License #: _____ Phone #: _____	<b>Need</b> <input type="checkbox"/> Lic <input type="checkbox"/> Liab <input type="checkbox"/> W/C <input type="checkbox"/> EX <input type="checkbox"/> DE
<b>FIRE SYSTEM/</b> <b>SPRINKLER</b> <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ License #: _____ Phone #: _____	<b>Need</b> <input type="checkbox"/> Lic <input type="checkbox"/> Liab <input type="checkbox"/> W/C <input type="checkbox"/> EX <input type="checkbox"/> DE
<b>SOLAR</b> <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ License #: _____ Phone #: _____	<b>Need</b> <input type="checkbox"/> Lic <input type="checkbox"/> Liab <input type="checkbox"/> W/C <input type="checkbox"/> EX <input type="checkbox"/> DE
<b>STATE</b> <b>SPECIALTY</b> <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ License #: _____ Phone #: _____	<b>Need</b> <input type="checkbox"/> Lic <input type="checkbox"/> Liab <input type="checkbox"/> W/C <input type="checkbox"/> EX <input type="checkbox"/> DE



District No. 1 - Ronald Williams  
District No. 2 - Rocky Ford  
District No. 3 - Becky 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: 1/27/2020 7:25:15 PM  
Address: 2723 SW KOONVILLE Ave  
City: LAKE CITY  
State: FL  
Zip Code 32024

Parcel ID 00322-008

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](mailto:gis@columbiacountyfla.com)

# NOTICE OF COMMENCEMENT

Tax Parcel Identification Number:

02-4S-15-00322-008

Clerk's Office Stamp

Inst: 202012003251 Date: 02/10/2020 Time: 10:10AM  
Page 1 of 1 B: 1405 P: 718, P. DeWitt Cason, Clerk of Court Colur  
County, By: BD  
Deputy Clerk

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Section 713.13 of the Florida Statutes, the following information is provided in this NOTICE OF COMMENCEMENT.

Description of property (legal description): The south 210.00 feet of the West 210.00 of the NE 1/4 of the SW 1/4 Section @ Township 4 South, Range 15 East in Columbia County, Florida Lying East of the Easterly right of way line of County Road 252A.

a) Street (job) Address 2723 SW Koonville Ave. LAKE CITY FL. 32024

2 General description of improvements: RESIDENTIAL CONSTRUCTION

3. Owner Information or lessee information if the lessee contracted for the improvements:

- a) Name and address: Blake and Whitney Graham.
- b) Name and address of fee simple titleholder (if other than owner) N/A
- c) Interest in property: N/A

4 Contractor Information

- a) Name and address: COLUMBIA CONSTRUCTION & MAINTENANCE 406 SW THERESA CT, LAKE CITY, FL 32025
- b) Telephone No.: 386-867-5697

5. Surety Information (if applicable, a copy of the payment bond is attached):

- a) Name and address: N/A
- b) Amount of Bond:
- c) Telephone No.:

6 Lender

- a) Name and address: N/A
- b) Phone No.:

7. Person within the State of Florida designated by Owner upon whom notices, or other documents may be served as provided by Section 713.13(1)(a)7., Florida Statutes:

- a) Name and address: J.L. DUPREE 2563 SW Koonville Ave. LAKE CITY, FL. 32024
- b) Telephone No.: 386-867-5697

8 In addition to himself or herself, Owner designates the following person to receive a copy of the lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes:

- a) Name: N/A

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

**WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, 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 INTEND TO OBTAIN FINANCING, CONSULT YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.**

STATE OF FLORIDA  
COUNTY OF COLUMBIA

10.

Signature of Owner or Lessee, or Owner's or Lessee's Authorized Office/Director/Partner/Manager

Blake Weston Graham Owner

Printed Name and Signatory's Title/Office

The foregoing instrument was acknowledged before me, a Florida Notary, this 27<sup>th</sup> day of January 2020 by:

Blake Graham as Owner

(Name of Person)

(Type of Authority)

(name of party on behalf of whom instrument was executed)

Personally Known ☒ OR Produced Identification ☐ Type

Notary Signature Shannon M Regar Notary Stamp or Seal:



SHANNON M REGAR  
MY COMMISSION # GG048931  
EXPIRES November 30, 2020



## Legend

LidarElevations



Parcels

2018Aerials



Roads

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

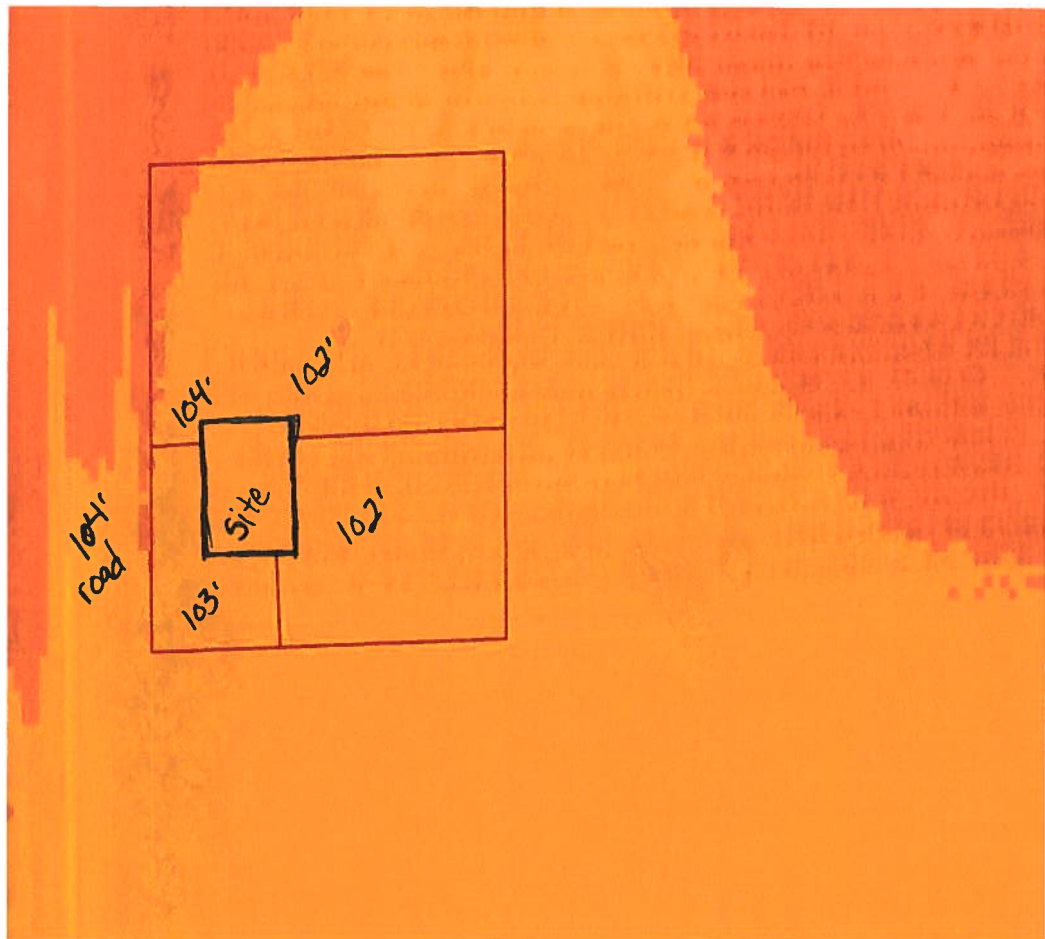
2018 Flood Zones

0.2 PCT ANNUAL CHANCE

A

# Columbia County, FLA - Building & Zoning Property Map

Printed: Wed Feb 12 2020 15:22:27 GMT-0500 (Eastern Standard Time)



## Parcel Information

Parcel No: 02-4S-15-00322-008

Owner: GRAHAM WHITNEY DUPREE &

Subdivision:

Lot:

Acres: 1.01219165

Deed Acres: 1.01 Ac

District: District 2 Rocky Ford

Future Land Uses: Agriculture - 3

Flood Zones:

Official Zoning Atlas: A-3

All data, information, and maps are provided "as is" without warranty or any representation of accuracy, timeliness of completeness. Columbia County, FL makes no warranties, express or implied, as to the use of the information obtained here. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts all limitations, including the fact that the data, information, and maps are dynamic and in a constant state of maintenance, and update.



## **FAMILY RELATIONSHIP AFFIDAVIT**

STATE OF FLORIDA  
COUNTY OF COLUMBIA

BEFORE ME the undersigned Notary Public personally appeared, Joseph L DuPree the Owner of the parent parcel which has been subdivided for and Whitney D Graham, the Immediate Family Member of the Owner, which is intended for the Immediate Family Members primary residence use. The Immediate Family Member is related to the Owner as Daughter. Both individuals being first duly sworn according to law, depose and say:

1. Affiant acknowledges Immediate Family Member is defined as parent, grandparent, step-parent, adopted parent, sibling, child, step-child, adopted child or grandchild.
2. Both the Owner and the Immediate Family Member have personal knowledge of all matters set forth in this Affidavit.
3. The Owner holds fee simple title to certain real property situated in Columbia County, and more particularly described by reference with the Columbia County Property Appraiser Parent Tract Tax Parcel No. 02-4S-15-00322-003
4. The Immediate Family Member holds fee simple title to certain real property divided from the Owners' parent parcel situated in Columbia County and more particularly described by reference to the Columbia County Property Appraiser Tax Parcel No. 02-4S-15-00322-008.
5. No person or entity other than the Owner and Immediate Family Member to whom permit is being issued, including persons residing with the family member claims or is presently entitled to the right of possession or is in possession of the property, and there are no tenancies, leases or other occupancies that affect the property.
6. This Affidavit is made for the specific purpose of inducing Columbia County to recognize a family division for an Immediate Family Member being in compliance with the density requirements of the Columbia County's Comprehensive Plan and Land Development Regulations (LDR's).
7. This Affidavit and Agreement is made and given by Affiants with full knowledge that the facts contained herein are accurate and complete, and with full knowledge that the penalties under Florida law for perjury include conviction of a felony of the third degree.

We Hereby Certify that the facts represented by us in this Affidavit are true and correct and we accept the terms of the Agreement and agree to comply with it.

  
Owner

Joseph L DuPre  
Typed or Printed Name

  
Immediate Family Member

Whitney Graham  
Typed or Printed Name

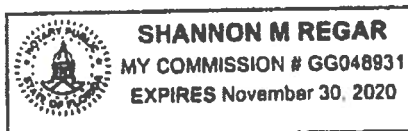
Subscribed and sworn to (or affirmed) before me this 1 day of October, 2019  
by Joseph L DuPre (Owner) who is personally known to me or has produced  
\_\_\_\_\_ as identification.

\_\_\_\_\_  
Notary Public



Subscribed and sworn to (or affirmed) before me this 1<sup>st</sup> day of Oct, 2019,  
by Whitney Graham (Family Member) who is personally known to me or has  
produced \_\_\_\_\_ as identification.

  
Notary Public



APPROVED:  
COLUMBIA COUNTY, FLORIDA

By: 

Name: Liza Williams

Title: Planning Technician





STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
ONSITE SEWAGE TREATMENT AND DISPOSAL  
SYSTEM

APPLICATION FOR CONSTRUCTION PERMIT

CR # 10-7458

PERMIT NO. 10-0063  
DATE PAID: 1/23/20  
FEE PAID: 310.00  
RECEIPT #: 1463335

APPLICATION FOR:

☒ New System ☐ Existing System ☐ Holding Tank ☐ Innovative  
☐ Repair ☐ Abandonment ☐ Temporary ☐

APPLICANT: BLAKE & WHITNEY GRAHAM

AGENT: PAUL LLOYD

TELEPHONE: (386) 623-1642

MAILING ADDRESS: 180 SW SLASH LN

LAKE CITY

FL 32024

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: N/A BLOCK: N/A SUBDIVISION: METES AND BOUNDS PLATTED: \_\_\_\_\_

PROPERTY ID #: 02-4S-15-00322-008 ZONING: RES I/M OR EQUIVALENT: ☐ NO ☐

PROPERTY SIZE: 1.010 ACRES WATER SUPPLY: ☒ PRIVATE PUBLIC ☐  $\leq 2000$  GPD ☐  $> 2000$  GPD

IS SEWER AVAILABLE AS PER 381.0065, FS? ☐ NO ☐ DISTANCE TO SEWER: N/A FT

PROPERTY ADDRESS: 2543 SW KOONVILLE AVE. LAKE CITY

DIRECTIONS TO PROPERTY: 90 WEST, PAST I-75. TURN LEFT ON PINE MT. RD TURN RIGHT ON KOONVILLE AVE. SITE IS APP. 1/2 MILE ON RT.

BUILDING INFORMATION ☒ RESIDENTIAL ☐ COMMERCIAL

Unit No.	Type of Establishment	No. of Bedrooms	Building Area Sqft	Commercial/Institutional System Design Table 1, Chapter 64E-6, FAC
1	<u>HOUSE</u>	<u>3</u>	<u>2,000</u>	
2				
3				
4				

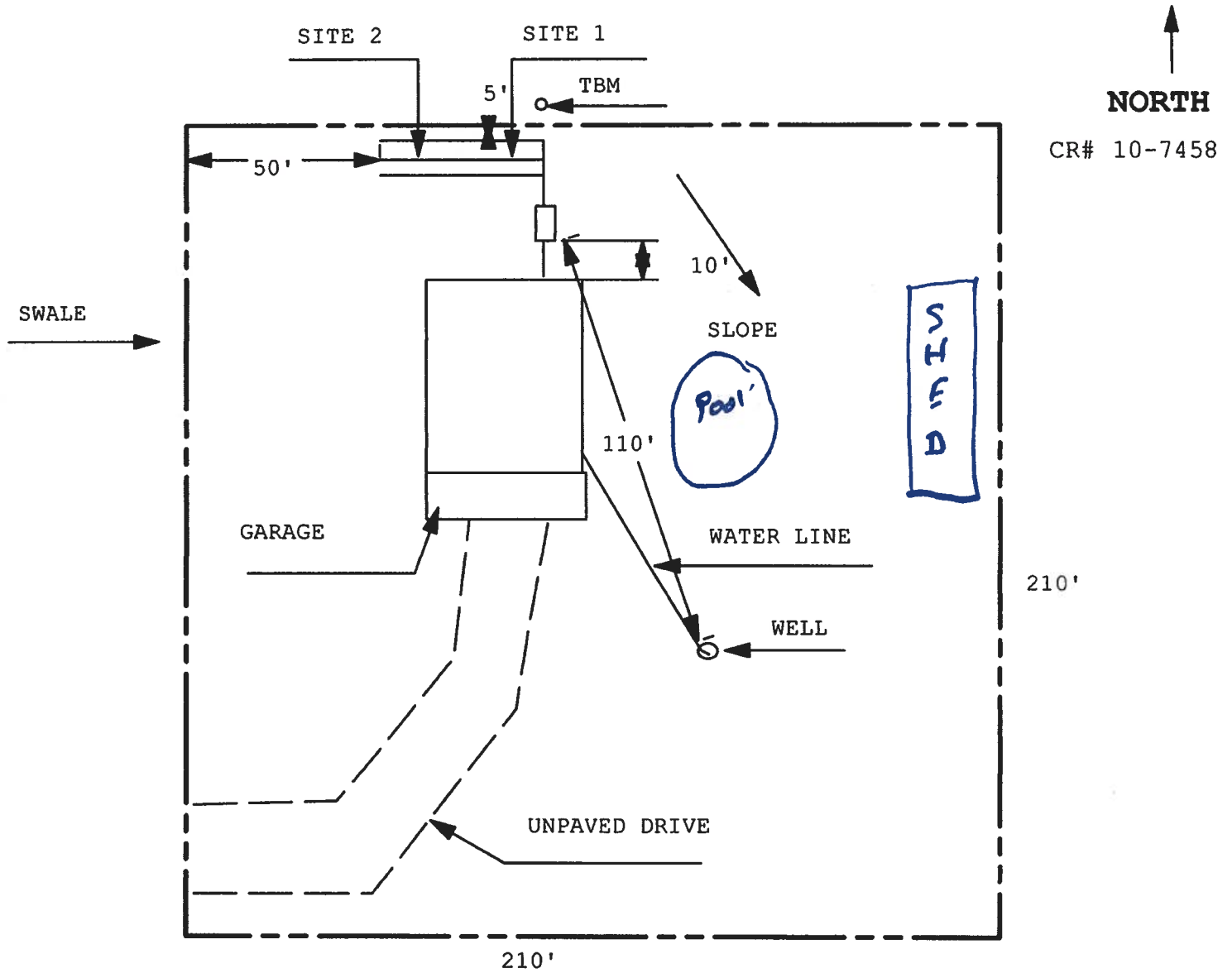
☐ Floor/Equipment Drains ☐ Other (Specify) \_\_\_\_\_

SIGNATURE: Paul Lloyd

DATE: 1/21/20

Application for Onsite Sewage Disposal System  
Construction Permit. Part II Site Plan  
Permit Application Number: 20-0063

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT



NO WELLS WITHIN 100'

1 INCH = 40 FEET

Site Plan Submitted By Paul Lantz Date 1/20/20  
Plan Approved ☒ Not Approved ☐ Date 1/28/20  
By Sam Allen ESI Columbia CPHU

Notes: \_\_\_\_\_



# A&B Well Drilling, Inc.

5673 NW Lake Jeffery Road  
Lake City, FL 32055  
Telephone: (386) 758-3409  
Cell: (386) 623-3151  
Fax: (386) 758-3410  
Owner: Bruce Park

February 14, 2020

To: Columbia County Building Department

Description of Well to be installed for Customer \_Blake Graham\_\_\_\_\_

Located @ Address: \_\_\_Koonville Rd, Lake City FL\_\_\_\_\_

1.5 HP 20 GPM submersible pump, 1 1/4" drop pipe, 85 gallon captive tank, and backflow prevention.  
With SRWMD permit.

Bruce Park\_\_\_\_\_

Sincerely,  
Bruce N. Park  
President



## 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>

Items to Include-  
Each Box shall be  
Circled as  
Applicable

**GENERAL REQUIREMENTS:**

**APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL**

Select From Drop down

1	Two (2) complete sets of plans containing the following:	<input checked="" type="checkbox"/>		
2	All drawings must be clear, concise, drawn to scale, details that are not used shall be marked void	<input checked="" type="checkbox"/>		
3	Condition space (Sq. Ft.) <u>2000 SF</u> Total (Sq. Ft.) under roof <u>3715 S.F</u>	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	- <input checked="" type="checkbox"/>		
5	Dimensions of all building set backs.	- <input checked="" type="checkbox"/>		
6	Location of all other structures (include square footage of structures) on parcel, existing or proposed well and septic tank and all utility easements.	- <input checked="" type="checkbox"/>		
7	Provide a full legal description of property.	- <input checked="" type="checkbox"/>		

**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	- <input checked="" type="checkbox"/>		
10	(Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated)	-		<input checked="" type="checkbox"/>
11	Wind importance factor and nature of occupancy	- <input checked="" type="checkbox"/>		
12	The applicable internal pressure coefficient, Components and Cladding	-		<input checked="" type="checkbox"/>
13	The design wind pressure in terms of psf (kN/m <sup>2</sup> ), to be used for the design of exterior component, cladding materials not speciffaly designed by the registered design professional.	-		<input checked="" type="checkbox"/>

**Elevations Drawing including:**

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

**Floor Plan 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)**

<b>GENERAL REQUIREMENTS:</b> <b>APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL</b>	<b>Items to Include-</b> 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 value 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 lapped 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	- ✓		
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**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 piers	- ✓		
42	Girder type, size and spacing to load bearing walls, stem wall and/or piers	-	✓	✓
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 assemblies covering	-		✓
73	Submit Florida Product Approval numbers for each component of the roof assemblies 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.

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

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

*Select from Drop down*

<b>93</b>	<b>Building Permit Application</b> A current Building Permit Application is to be completed, by following the Checklist all supporting documents must be submitted. There is a <b>\$15.00</b> application fee. The completed application with attached documents and application fee can be mailed.	-	✓	
<b>94</b>	<b>Parcel Number</b> The parcel number (Tax ID number) from the Property Appraisers Office (386) 758-1083 is required. A copy of property deed is also required. <a href="http://www.columbiacountyfla.com">www.columbiacountyfla.com</a>	-	✓	
<b>95</b>	<b>Environmental Health Permit or Sewer Tap Approval</b> A copy of a approved Columbia County Environmental Health (386) 758-1058	-	✓	
<b>96</b>	<b>City of Lake City</b> A City Water and/or Sewer letter. Call 386-752-2031	-		✓
<b>97</b>	<b>Toilet facilities shall be provided for all construction sites</b>	-	✓	
<b>98</b>	<b>Town of Fort White</b> (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.	-		✓
<b>99</b>	<b>Flood Information:</b> 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 ( <a href="http://Municode.com">Municode.com</a> )	-		✓
<b>100</b>	<b>CERTIFIED FINISHED FLOOR ELEVATIONS</b> 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.	-		✓
<b>101</b>	A Flood development permit is also required for AE, Floodway & AH. Development permit cost is <b>\$50.00</b>	-		✓
<b>102</b>	<b>Driveway Connection:</b> If the property does not have an existing access to a public road, then an application for a culvert permit ( <b>\$25.00</b> ) 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 ( <b>\$50.00</b> ) 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.	-	✓	
<b>103</b>	<b>911 Address:</b> 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.



MI 3540

FLANGE

FLORIDA PRODUCT APPROVALS

10-16-15

FL 186-443

FL 186.443

Item:	Manufacturer	Product Description:	Approval Number:
Exterior Doors:	Masonite	Inswing & Outswing Fiberglass	FL-8228-R7
	Masonite	Inswing & Outswing Steel	FL-4904-R7
	Plastpro	8'0" Inswing & Outswing Fiberglass	FL-15220-R1
	Plastpro	Inswing & Outswing Steel	FL-15962-R2
	Plastpro	6'8" Inswing & Outswing Fiberglass	FL-15215-R3 flush glazed
		6'8" Fib - glazed door	FL-17347
Windows:	MI	Aluiminum 185 Single Hung	FL-17499
		Aluiminum 185 Picture Window	FL-15349
		53" x 50" 3580 HD Slider	FL-13349-2
		Vinyl 3540 Single Hung	FL-17676-R1
		Vinyl 3500 Picture Window	FL-18644
	Atman	150/160	FL-11834
	Magnolia	Vinyl 400 Single Hung	FL-16475-R3
		Vinyl 400 Picture Window	FL-16474-R2
		400 HD Slider	FL-16476-1
Soffit:	Kaycan	Vinyl/PVC & Aluminum Soffit	FL-16503
		Vinyl Siding	FL-15867-R1
Underlayment:	Woodland	30# Felt	FL-17206-R3
Roofing:	Certaanteed	Asphalt Shingles	FL-5444
	GAF	Asphalt Shingles	FL-10124-R16
	Tamko	Asphalt Shingles	FL-18355
	Certaanteed	Flintlastic SBS APP	FL-16709-1
Siding:	Allura of Plycem	Cement board lap siding	FL-17482-R2
	James Hardie	Cement board lap siding	FL-13192-R4
Simpson		LSTA - MSTA, SPH4	FL-13872-R2
	GAF	Tiger Paw Underlayment	FL-15487-R5
Metal Roofing		5V Roofing	FL-9555-R3
		Master Rib Roofing	FL-9557-R3

5-17-16  
Per Over  
SF. 6 per  
15181  
Plastpro

1-7-16

Finless covers flange  
& finless per Jason

5-16

63" x 44"

Kaycan

Woodland

Certaanteed

GAF

Tamko

Certaanteed

Siding:

Allura of Plycem

James Hardie

Simpson

GAF

Metal Roofing

Hardie  
Union

CamPlanck

13192.1

# HVAC WORKSHEET FOR WATT-WISE LIVING

## HEATING AND COOLING REQUIREMENTS DUE TO GLASS AREA

[illegible]



For: Graham Residence  
 Name: Columbia Construction, Inc  
 Address: 2723 S W HOOVER, ILL  
 City: LC FIA

DESIGN TEMPERATURE DIFFERENCE	30° / 35° / 40° / 45° / 50°				
	90°	95°			
DESIGN TEMP					

ITEM	AREA SQUARE FEET	HEATING MULTIPLIER (CIRCLE ONE)	HEATING (BTUH LOSS)	COOLING MULT. (CIRCLE)	COOLING (BTUH GAIN)
Gross Wall Area	1386				
Glass Area (From page 1)	100				
Partitions, Frame					
Finished 1 side, No insulation	17	19	22	25	28
Finished 2 sides, No insulation	9	11	12	14	16
Finished 2 sides, R-5	4	5	5.5	6	7
Finished 2 sides, R-11	2	3	3	4	4
Other					
Doors (Excluding glass)					
No weatherstripping	135	160	180	200	225
Weatherstripped	70	85	95	110	120
R-5 Insulation, No weatherstripping	123	144	164	185	205
R-5 Insulation, weatherstripping	68	79	90	101	113
Other					
Net Exterior Walls					
CBS Furred, No insulation	9	10	12	13	14
CBS Furred, R-3 insulation	5	6	7	8	8
CBS Furred, R-4 insulation	4	5	6	7	7
CBS Furred, R-5 insulation	4	5	6	6	6
Frame, No insulation	8	9	10	11	13
Frame, R-11 insulation	2	2	3	3	4
Frame, R-14 insulation	1.5	1.7	2	2.5	3
Other					
Ceiling under attic					
Root					
No insulation	18	21	24	27	30
R-11 insulation	24	28	3.2	3.5	3.9
R-19 insulation	1.5	1.7	1.9	2.2	2.4
R-22 insulation	1.2	1.5	1.7	1.9	2.1
R-26 insulation	1.1	1.3	1.4	1.6	1.8
R-30 insulation	1	1.1	1.3	1.4	1.6
Other					
Floor, Concrete Slab					
No Edge Insulation					
Other					
Subtotal					
People @ 300 & Appl. @ 1200					
Sensible BTUH Gain					
Duct BTUH Loss & Gain					
2 in. Flex. or 1 in. Rigid					
1 1/2 in. Rigid					
Total BTUH Loss					
Subtotal BTUH Gain					
x 1.3 = Total BTUH Gain					

Calculated Heating Requirements 16127  
 Size of Unit Chosen 24068  
 % Oversized BTUH  
 % Undersized BTUH  
 Calculated Cooling Requirements 29063  
 Size of Unit Chosen 29063  
 % Oversized BTUH  
 % Undersized BTUH

## **RESIDENTIAL ENERGY CONSERVATION CODE DOCUMENTATION CHECKLIST**

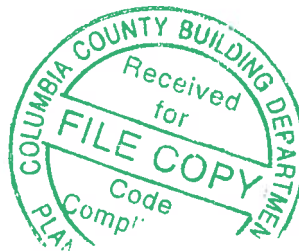
### **Florida Department of Business and Professional Regulation Simulated Performance Alternative (Performance) Method**

**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)



**FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION**

Florida Department of Business and Professional Regulation - Residential Performance Method

<b>Project Name:</b> Graham Residence <b>Street:</b> <b>City, State, Zip:</b> , FL , <b>Owner:</b> Graham <b>Design Location:</b> FL, Gainesville	<b>Builder Name:</b> <b>Permit Office:</b> <b>Permit Number:</b> <b>Jurisdiction:</b> <b>County:</b> Columbia (Florida Climate Zone 2)
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Glass/Floor Area: 0.046	Total Proposed Modified Loads: 42.66	<b>PASS</b>
	Total Baseline Loads: 42.88	

<p>I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.</p> <p><b>PREPARED BY:</b> <u>GARY GILL</u></p> <p><b>DATE:</b> <u>1/23/20</u></p> <p>I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.</p> <p><b>OWNER/AGENT:</b> _____</p> <p><b>DATE:</b> _____</p>	<p>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.</p> <div style="text-align: center;">  </div> <p><b>BUILDING OFFICIAL:</b> _____</p> <p><b>DATE:</b> _____</p>
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- 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 5.55 ACH50 (R402.4.1.2).

## INPUT SUMMARY CHECKLIST REPORT

PROJECT												
Title:	Graham Residence			Bedrooms:	3		Address Type:	Street Address				
Building Type:	User			Conditioned Area:	1975		Lot #					
Owner Name:	Graham			Total Stories:	1		Block/Subdivision:					
# of Units:	1			Worst Case:	Yes		PlatBook:					
Builder Name:				Rotate Angle:	0		Street:					
Permit Office:				Cross Ventilation:			County:	Columbia				
Jurisdiction:				Whole House Fan:			City, State, Zip:	, FL				
Family Type:	Single-family											
New/Existing:	New (From Plans)											
Comment:												
CLIMATE												
✓	Design Location	TMY Site	Design Temp 97.5 %	2.5 %	Int Design Temp Winter	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	1975	16787.5								
SPACES												
	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated	
	1	Main	1975	16787.5	Yes	3	3	1	Yes	Yes	Yes	
FLOORS												
✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet		
_____	1	Slab-On-Grade Edge Insulatio	Main	179 ft		1975 ft²	---	0	0	1		
ROOF												
✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Gable or shed	Metal	2081 ft²	328 ft²	Medium	N	0.75	No	0.9	No	0 18.4
ATTIC												
✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC					
_____	1	No attic	Vented	300	1975 ft²	N	N					
CEILING												
✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type				
_____	1	Under Attic (Vented)	Main	30	Blown	1975 ft²	0.11	Wood				



## INPUT SUMMARY CHECKLIST REPORT

## WALLS

✓	#	Omt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
✓	1	W	Exterior	Frame - Wood	Main	19	40		8		320.0 ft²		0.23	0.75	0
✓	2	N	Garage	Frame - Wood	Main	19	50		8		400.0 ft²		0.23	0.75	0
✓	3	E	Exterior	Frame - Wood	Main	19	40		8		320.0 ft²		0.23	0.75	0
✓	4	S	Exterior	Frame - Wood	Main	19	50		8		400.0 ft²		0.23	0.75	0

## DOORS

✓	#	Omt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
✓	1	W	Insulated	Main	None	.16	3		6	8	20 ft²
✓	2	N	Insulated	Main	None	.16	3		6	8	20 ft²
✓	3	S	Insulated	Main	None	.16	3		6	8	20 ft²

## WINDOWS

Orientation shown is the entered orientation (=&gt;) changed to Worst Case.

✓	#	Omt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
✓	1	W	1	Vinyl	Triple (Tinted)	Yes	0.31	0.45	N	30.0 ft²	1 ft 0 in	2 ft 0 in	Drapes/blinds	None
✓	2	E	3	Vinyl	Triple (Tinted)	Yes	0.31	0.45	N	30.0 ft²	1 ft 0 in	2 ft 0 in	Drapes/blinds	None
✓	3	S	4	Vinyl	Triple (Tinted)	Yes	0.31	0.45	N	30.0 ft²	1 ft 0 in	2 ft 0 in	Drapes/blinds	None

## GARAGE

✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
✓	1	1275 ft²	1275 ft²	100 ft	9 ft	13

## INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.0003	1554.1	85.32	160.46	.1156	5.5546

## HEATING SYSTEM

✓	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
✓	1	Electric Heat Pump/	None		HSPF:8.2	48 kBtu/hr	1	sys#1

## COOLING SYSTEM

✓	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit/	Split		SEER: 17	48 kBtu/hr	1440 cfm	0.7	1	sys#1

## INPUT SUMMARY CHECKLIST REPORT

HOT WATER SYSTEM										
<input checked="" type="checkbox"/>	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation	
<input type="checkbox"/>	1	Electric	None	Garage	0.93	40 gal	60 gal	120 deg	None	

SOLAR HOT WATER SYSTEM							
<input checked="" type="checkbox"/>	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
<input type="checkbox"/>	None	None			ft²		

DUCTS														
<input checked="" type="checkbox"/>	#	---- Supply ----			---- Return ----		Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat Cool	
		Location	R-Value	Area	Location	Area								
<input type="checkbox"/>	1	Attic	6	395 ft²	Attic	98.75 ft	Default Leakage	Garage	(Default)	(Default)			1	1

TEMPERATURES															
Programable Thermostat: Y				Ceiling Fans:											
Cooling	Heating	Venting		<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Thermostat Schedule: HERS 2006 Reference		Hours											
Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM PM	78 80	78 80	78 78	78 78	78 78	78 78	78 78	78 78	80 78	80 78	80 78	80 78
Cooling (WEH)	AM PM	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78
Heating (WD)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66
Heating (WEH)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 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\* = 99****The lower the Energy Performance Index, the more efficient the home.**

1. New home or, addition	1. <u>New (From Plans)</u>	12. Ducts, location & insulation level	
2. Single-family or multiple-family	2. <u>Single-family</u>	a) Supply ducts	R <u>6.0</u>
3. No. of units (if multiple-family)	3. <u>1</u>	b) Return ducts	R <u>6.0</u>
4. Number of bedrooms	4. <u>3</u>	c) AHU location	<u>Garage</u>
5. Is this a worst case? (yes/no)	5. <u>Yes</u>	13. Cooling system:	Capacity <u>48.0</u>
6. Conditioned floor area (sq. ft.)	6. <u>1975</u>	a) Split system	SEER <u>17.0</u>
7. Windows, type and area		b) Single package	SEER <u>        </u>
a) U-factor:(weighted average)	7a. <u>0.310</u>	c) Ground/water source	SEER/COP <u>        </u>
b) Solar Heat Gain Coefficient (SHGC)	7b. <u>0.450</u>	d) Room unit/PTAC	EER <u>        </u>
c) Area	7c. <u>90.0</u>	e) Other	<u>        </u>
8. Skylights		14. Heating system:	Capacity <u>48.0</u>
a) U-factor:(weighted average)	8a. <u>NA</u>	a) Split system heat pump	HSPF <u>        </u>
b) Solar Heat Gain Coefficient (SHGC)	8b. <u>NA</u>	b) Single package heat pump	HSPF <u>        </u>
9. Floor type, insulation level:		c) Electric resistance	COP <u>        </u>
a) Slab-on-grade (R-value)	9a. <u>0.0</u>	d) Gas furnace, natural gas	AFUE <u>        </u>
b) Wood, raised (R-value)	9b. <u>        </u>	e) Gas furnace, LPG	AFUE <u>        </u>
c) Concrete, raised (R-value)	9c. <u>        </u>	f) Other	<u>8.20</u>
10. Wall type and insulation:		15. Water heating system	
A. Exterior:		a) Electric resistance	EF <u>0.93</u>
1. Wood frame (Insulation R-value)	10A1. <u>19.0</u>	b) Gas fired, natural gas	EF <u>        </u>
2. Masonry (Insulation R-value)	10A2. <u>        </u>	c) Gas fired, LPG	EF <u>        </u>
B. Adjacent:		d) Solar system with tank	EF <u>        </u>
1. Wood frame (Insulation R-value)	10B1. <u>19.0</u>	e) Dedicated heat pump with tank	EF <u>        </u>
2. Masonry (Insulation R-value)	10B2. <u>        </u>	f) Heat recovery unit	HeatRec% <u>        </u>
11. Ceiling type and insulation level		g) Other	<u>        </u>
a) Under attic	11a. <u>30.0</u>	16. HVAC credits claimed (Performance Method)	
b) Single assembly	11b. <u>        </u>	a) Ceiling fans	<u>Yes</u>
c) Knee walls/skylight walls	11c. <u>        </u>	b) Cross ventilation	<u>No</u>
d) Radiant barrier installed	11d. <u>No</u>	c) Whole house fan	<u>No</u>
		d) Multizone cooling credit	<u>        </u>
		e) Multizone heating credit	<u>        </u>
		f) Programmable thermostat	<u>Yes</u>

\*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: \_\_\_\_\_

Address of New Home: \_\_\_\_\_ City/FL Zip: \_\_\_\_\_, FL \_\_\_\_\_

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

ADDRESS:

, FL,

Permit Number:

**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/m<sup>2</sup>), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m<sup>2</sup>), 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 manufacturer's 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 <sup>a</sup> (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.

**Request for  
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	Phone:	916.536.9585
	Email:	

<b>From:</b>	Name:	Israel Vigil
	Phone:	

<b>Work:</b>	Task:	Seal
	# Designs :	1
	Extra Pages:	0

Project Information			
Project Name:	WB Howland 19-3821 Graham Residence		
Project Address:	,,		
State Seal:	Florida	Document to Seal:	
Notes:			

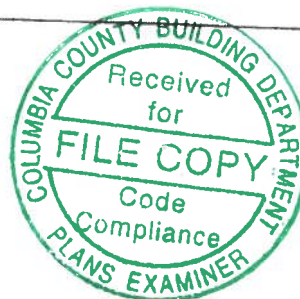
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Friday, January 24, 2020



**SOLIDSTART**  
DESIGN SOFTWARE

Client: WB Howland Co  
Project: 19-3821  
Address:

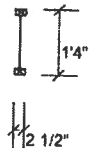
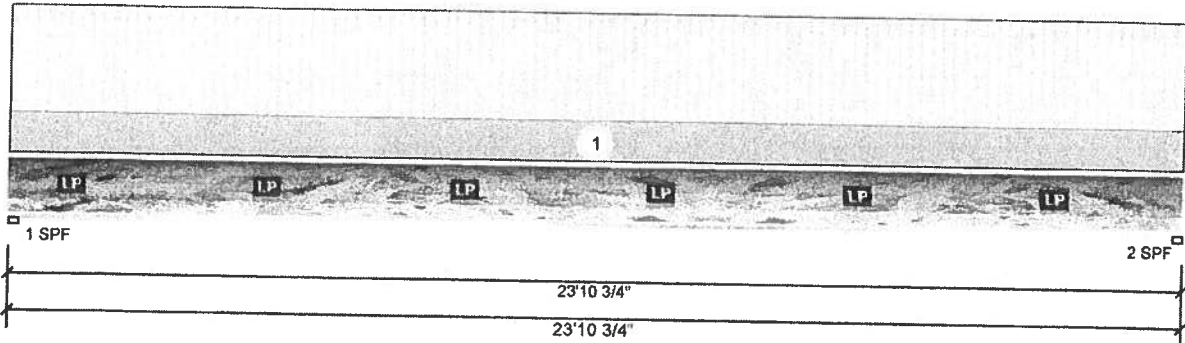
Date: 1/24/2020  
Designer: Clete Wilkerson  
Job Name: Graham Residence  
Project #:

Page 1 of 1

**JT1 LPI 32Plus 16.000" - PASSED**

Level Level

Ticket: T20200124957



### Member Information

Type: Joist  
Spacing: 16" o.c.  
Moisture Condition: Dry  
Deflection LL: 360  
Deflection TL: 240  
Importance: Normal  
Temperature: Temp <= 100°F

Application: Floor  
Design Method: ASD  
Building Code: IBC/IRC 2015  
Load Sharing: No  
Deck: Not Checked

### Reactions PATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	478	179	0	0	0
2	478	179	0	0	0

### Bearings

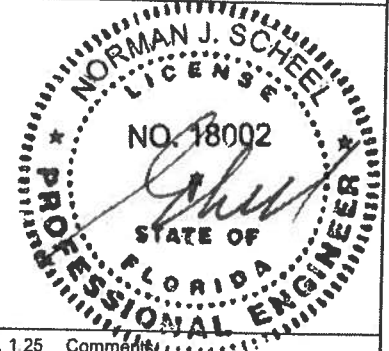
Bearing	Length	Cap	React D/L lb	Total Ld. Case	Ld. Comb
1 - SPF	2.375"	62%	179 / 478	657 L	D+L
2 - SPF	2.375"	62%	179 / 478	657 L	D+L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3837 ft-lb	11'11 3/8"	6545 ft-lb	0.586 (59%)	D+L	L
Shear	650 lb	1 5/8"	1870 lb	0.347 (35%)	D+L	L
LL Defl inch	0.417 (L/680)	11'11 7/16"	0.788 (L/360)	0.530 (53%)	L	L
TL Defl inch	0.573 (L/495)	11'11 7/16"	1.181 (L/240)	0.490 (49%)	D+L	L

### Design Notes

- 1 Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
- 2 Dead Load Deflection: Instant = 0.156", Long Term = 0.234"
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange braced at bearings.



ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		1-4-0	15 PLF	40 PLF	0 PLF	0 PLF	0 PLF	

The signature has been electronically transmitted

### Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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### Manufacturer Info

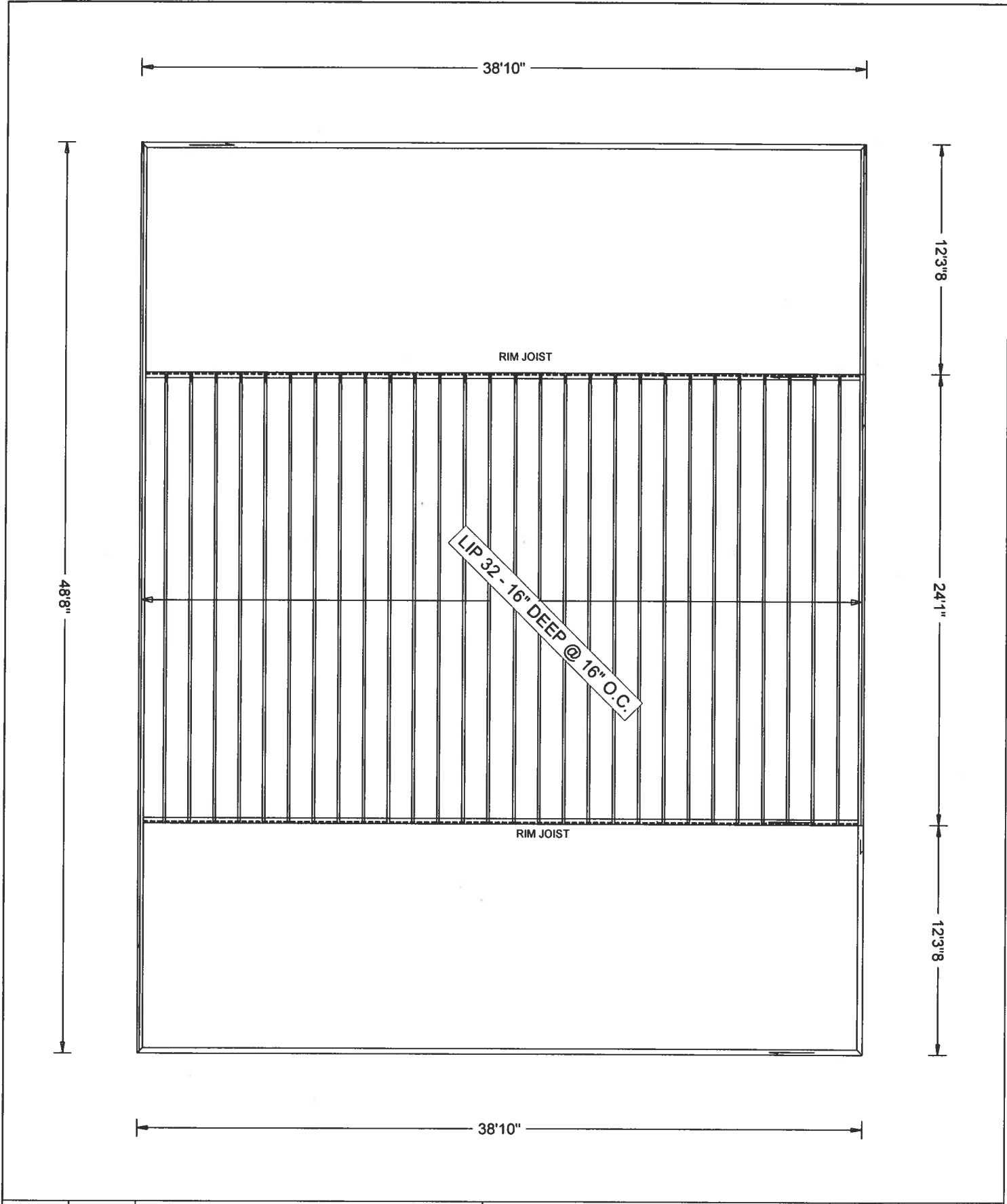
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This design is valid until 10/31/2022



<p>PAGE NO: 1 OF 1</p>	<p>JOB NO: 19-3821</p>	<p>Job Name: Graham Residence - FLOOR Customer: COLUMBIA CONST. Designer: Bob Glover ADDRESS: SALESMAN: DB : &lt;Not Found&gt;</p>	<p>JOB #: 19-3821</p>	
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