

e-3176

KCARD #

## Columbia County Building Permit Application

Columbia County ON  
CERTIFICATE OF RECORD  
MAC JOHNSON LAB

For Office Use Only Application # 1203-40 Date Received 3/15 By 16 Permit # 30046/1935

Zoning Official BLK Date 28 MARCH 2012 Flood Zone X Land Use RES. Low Density Zoning PRO

FEMA Map # N/A Elevation N/A MFE 118.3' River N/A Plans Examiner T.C. Date 3-27-12

Comments air plat Elevation Confirmation Letter Required at slab

☒ NOC ☒ 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

IMPACT FEES: EMS \_\_\_\_\_ Fire \_\_\_\_\_ Corr \_\_\_\_\_ Sub VF Form \_\_\_\_\_

Road/Code \_\_\_\_\_ School \_\_\_\_\_ = TOTAL (Suspended) App Fee Paid \_\_\_\_\_

Septic Permit No. K12-32-In Box Fax \_\_\_\_\_Name Authorized Person Signing Permit Bryan Zecher Phone 752-8653Address PO Box 815 Lake City, FL 32056Owners Name Eric Koch Phone 860-280-6905911 Address 143 SW Maple PL Lake City, FL 32024Contractors Name Bryan Zecher Homes, Inc Phone 752-8653Address PO Box 815 Lake City, FL 32056Fee Simple Owner Name & Address N/ABonding Co. Name & Address N/AArchitect/Engineer Name & Address Mark Dizoway, PO Box 868, LC, FL 32056Mortgage Lenders Name & Address N/ACircle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progress EnergyProperty ID Number 03-45-16-02731-127 Estimated Cost of Construction \$208,000-Subdivision Name Preserve @ Laurel Lakes Lot 127 Block \_\_\_\_\_ Unit 1 Phase \_\_\_\_\_Driving Directions US 90 W to 252B, T/L go 1 mile to Preserve, T/R into Preserve go to 1st left the 1st right on SW Maple Place, have on right.Number of Existing Dwellings on Property 0Construction of New Home Total Acreage .25 Lot Size \_\_\_\_\_Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height 27'Actual Distance of Structure from Property Lines - Front 27 Side 13 Side 13 Rear 35Number of Stories 1 Heated Floor Area 2229 Total Floor Area 2993 Roof Pitch 6/12

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. CODE: Florida Building Code 2007 with 2009 Supplements and the 2008 National Electrical Code.

Page 1 of 2 (Both Pages must be submitted together.) Revised 1-11

OK 3/13

- JW left msg - 3.27.12



**Columbia County Building Permit Application**

**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 such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

**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 BUILDING PERMITEE:** **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.

(Owners Must Sign All Applications Before Permit Issuance.)

  
\_\_\_\_\_  
Owners Signature

**\*\*OWNER BUILDERS MUST PERSONALLY APPEAR AND SIGN THE BUILDING PERMIT.**

**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 (Permitee)

Contractor's License Number CBC054575  
Columbia County  
Competency Card Number \_\_\_\_\_

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 15 day of March 2012.  
Personally known \_\_\_\_\_ or Produced Identification FL Drivers License

  
\_\_\_\_\_  
State of Florida Notary Signature (For the Contractor)

SEAL:



P.DeWitt Cason Clerk of Courts, Columbia County, Florida

# NOTICE OF COMMENCEMENT

Tax Parcel Identification Number:

53-45-16-02731-127

Clerk's Office Stamp

Inst: 201212003988 Date: 3/15/2012 Time: 12:05 PM  
DC P DeWitt Cason Columbia County Page 1 of 1 B: 1231 P: 1069

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): Lot 127 Preserve @ Laurel Lake Unit 1  
a) Street (job) Address: 143 SW Maple PL Lake City, FL 32024
- General description of improvements: New Home
- Owner Information  
a) Name and address: Eric Koch  
b) Name and address of fee simple titleholder (if other than owner): 389 SW Mossy Oak Way LC, FL 32024  
c) Interest in property: Fee Simple
- Contractor Information  
a) Name and address: Bryan Zaher Homes, Inc PO Box 855 Lake City, FL 32056  
b) Telephone No.: 72-8653 (396) Fax No. (Opt.): \_\_\_\_\_
- Surety Information  
a) Name and address: N/A  
b) Amount of Bond: \_\_\_\_\_  
c) Telephone No.: \_\_\_\_\_ Fax No. (Opt.): \_\_\_\_\_
- Lender  
a) Name and address: N/A  
b) Phone No.: \_\_\_\_\_
- Identity of person within the State of Florida designated by owner upon whom notices or other documents may be served:  
a) Name and address: \_\_\_\_\_  
b) Telephone No.: \_\_\_\_\_ Fax No. (Opt.): \_\_\_\_\_
- In addition to himself, 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 and address: \_\_\_\_\_  
b) Telephone No.: \_\_\_\_\_ Fax No. (Opt.): \_\_\_\_\_
- Expiration date of Notice of Commencement (the expiration date is one 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 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. Eric B. Koch  
Signature of Owner or Owner's Authorized Office/Director/Partner/Manager  
ERIC B KOCH  
Printed Name

The foregoing instrument was acknowledged before me, a Florida Notary, this 15 day of March, 20 12, by:  
Eric B. Koch as owner (type of authority, e.g. officer, trustee, attorney  
fact) for ERIC B. KOCH (name of party on behalf of whom instrument was executed).

Personally Known ☒ OR Produced Identification Type \_\_\_\_\_

Notary Signature

Durillee R. Bailey

Notary Stamp or Seal



-AND-

11. Verification pursuant to Section 92.525, Florida Statutes. Under penalties of perjury, declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

Eric B. Koch  
Signature of Natural Person Signing (in line #10 above.)



# 030046 (R. J. O'Neil)



Britt Surveying and Mapping, LLC  
2086 SW Main Blvd Ste 112  
Lake City, FL 32025

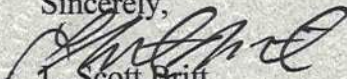
04/19/12

Re: Lot 127 Preserve at Laurel Lake Unit 1

To Whom It May Concern:

The finished grade of the slab is found to be 118.69 feet. The minimum floor elevation as shown on the plat of record is 118.30 feet. There is a benchmark set on the SE corner of the electric transformer pad on Lot 127, whose elevation is 118.16 feet.

Sincerely,

  
L. Scott Britt  
PLS 5757



# 30046



**IMPORTANT  
NOTICE TO  
OWNER**

During the construction of your home Florida Pest Control & Chemical Co. provided treatment for the control and prevention of subterranean termites.

Continued protection requires that annual inspections be made. Please contact us at the number below to receive a copy of your Termites Protection Policy.

Address: *1234 Main St.*

Phone: *555-1234*

Expiry Date: *12/31/2010*

100-100-10

# Warranty Deed

This Indenture, made, February 28, 2012 A.D.

## Between

Westfield Construction Group, LLC, a Florida Limited Liability Company,  
whose post office address is: 426 SW Commerce Drive, Suite 130, Lake City, FL  
32025, Grantor and Eric B. Koch and Yonghi Koch whose post office address is:  
389 SW Mossy Oak Way, Lake City, FL 32024, Grantee,

**Witnesseth**, that the said Grantor, for and in consideration of the sum of Ten and No/100 Dollars (\$10.00 ), to it in hand paid by the said Grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said Grantee forever, the following described land, situate, lying and being in the County of Columbia, State of Florida, to wit:

**Lot 127, Preserve At Laurel Lake, Unit 1, according to the map or plat thereof, as recorded in Plat Book 9, Page(s) 19, of the Public Records of Columbia County, Florida.**

**The above described property does not constitute the homestead property of the Grantor described herein.**

Subject to taxes for the current year, covenants, restrictions and easements of record, if any.

Parcel Identification Number: 03-4S-16-02731-127

**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, 2011.

**And** the said Grantor does hereby fully warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

See page 2 for Signatures/Notary



WARRANTY DEED  
PAGE 2

**In Witness Whereof**, the said Grantor has caused this instrument to be executed in its name by its duly authorized officer and caused its corporate seal to be affixed the day and year first above written.

Westfield Construction Group, LLC

**Signed and Sealed in Our Presence:**

By: \_\_\_\_\_

Scott D. Stewart  
Its: Manager

Witness Print Name: \_\_\_\_\_

Elizabeth Epeturs

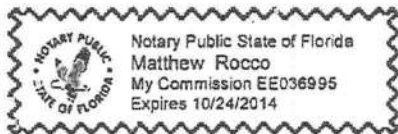
Witness Print Name: \_\_\_\_\_

Amy Woolum

State of  
County of

Florida  
Columbia

The foregoing instrument was acknowledged before me this 28th day of February, 2012, by Scott D. Stewart, the Manager of Westfield Construction Group, LLC, a Florida Limited Liability Company, on behalf of the company.  
He is personally known to me or has produced P.D.L. as identification.



Notary Public

Notary Printed Name: \_\_\_\_\_

**Matthew D. Rocco**

(Seal)

My Commission Expires::

Prepared by & Return to:  
Matt Rocco  
Sierra Title, LLC  
419 SW SR 247, Suite 109  
Lake City, Florida 32025  
File Number: 12-0208

CARD 001 OF 001  
BY JEFF

PRINTED  
APPR

GROUP, LLC  
P O BOX 3566  
LAKE CITY, FL 32056-3566

CO  
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NNO  
PART II

[illegible][illegible]

BOOK	PAGE	DATE	PRICE
1137	900	11/28/2007	U V 299500
GRANTOR RESIDENTIAL DEVELOPMENT GROUP LLC			
GRANTEE WESTFIELD CONSTRUCTION GROUP LLC			
GRANTOR			

TOTAL		EXTRA FEATURES		FIELD CK:		GRANTEE										
AE BN	CODE	DESC	LEN	WID	HGHT	QTY	QL	YR	ADJ	UNITS UT	PRICE	ADJ UT	PR	SPCD	%GOOD	XFOB VALUE

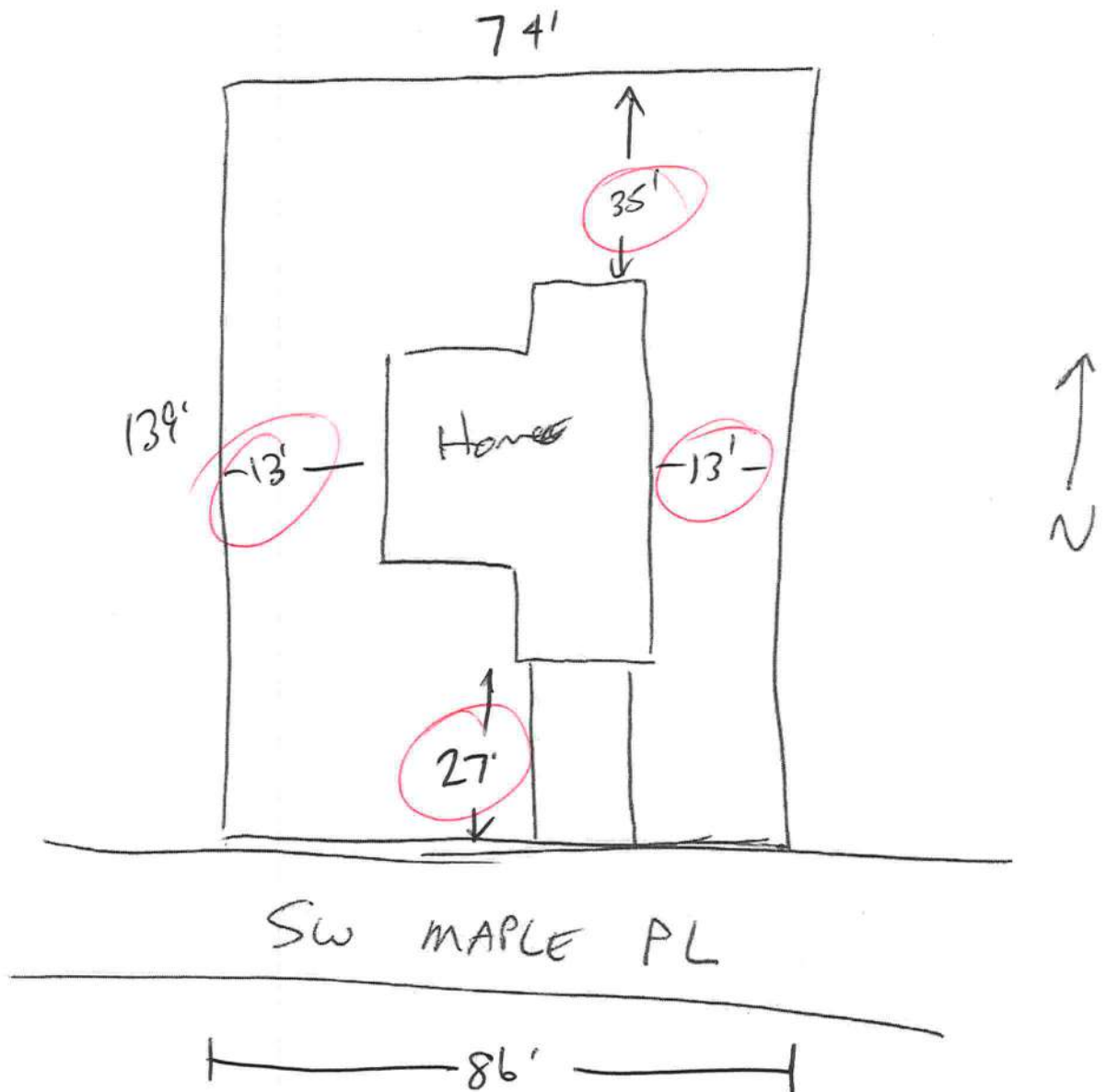
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# SITE PLAN

Lot 127 The Preserve @  
Laurel Lake

03-45-16-02731-127



## COLUMBIA COUNTY 9-1-1 ADDRESSING

P. O. Box 1787, Lake City, FL 32056-1787

PHONE: (386) 758-1125 \* FAX: (386) 758-1365 \* Email: ron\_croft@columbiacountyfla.com

### Addressing Maintenance

To maintain the Countywide 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 assigning 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 Service 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 REQUESTED: 2/29/2012      DATE ISSUED: 3/5/2012

#### ENHANCED 9-1-1 ADDRESS:

143      SW    MAPLE      PL

LAKE CITY      FL    32024

#### PROPERTY APPRAISER PARCEL NUMBER:

03-4S-16-02731-127

#### Remarks:

ADDRESS FOR PROPOSED STRUCTURE ON PARCEL. LOT 127  
PRESERVE AT LAUREL LAKE UNIT 1

Address Issued By: SIGNED: / RONAL N. CROFT  
Columbia County 9-1-1 Addressing / GIS Department

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





COLUMBIA COUNTY BUILDING DEPARTMENT  
RESIDENTIAL CHECK LIST REQUIREMENTS

6-25-09

2010

MINIMUM PLAN REQUIREMENTS FOR THE  
FLORIDA BUILDING CODE RESIDENTIAL ~~2007~~ EFFECTIVE 1 MARCH ~~2009~~ & 2009  
SUPPLEMENTS EFFECTIVE 1 MARCH 2009, ONE (1) AND TWO (2) FAMILY DWELLINGS  
with Supplements and Revision, OF THE NATIONAL ELECTRICAL 2008

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

**ALL BUILDING PLANS MUST INDICATE COMPLIANCE with the Current 2007 FLORIDA BUILDING CODES RESIDENTIAL EFFECTIVE 1 MARCH 2009 & 2009 SUPPLEMENTS EFFECTIVE 1 MARCH 2009. 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.**

**FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEEDS ARE PER FIGURE R301.2(4) of the FLORIDA BUILDING CODES RESIDENTIAL (Florida Wind speed map) SHALL BE USED.**

WIND SPEED LINE SHALL BE DEFINED AS FOLLOWS: THE CENTERLINE OF INTERSTATE 75.

ALL BUILDINGS CONSTRUCTED EAST OF SAID LINE SHALL BE ----- 100 MPH  
ALL BUILDINGS CONSTRUCTED WEST OF SAID LINE SHALL BE -----110 MPH  
NO AREA IN COLUMBIA COUNTY IS IN A WIND BORNE DEBRIS REGION

GENERAL REQUIREMENTS: APPLICANT - PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL			Items to Include- Each Box shall be Circled as Applicable		
			Yes	No	N/A
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.) 2229	Total (Sq. Ft.) under roof 2993	IIIIII	IIIIII	IIII

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 R101.2.1

**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 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	IIII	IIII	IIII
		YES	NO	N/A
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/m <sup>2</sup> ), to be used for the design of exterior component, cladding materials not speciffally 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	✓		
18	Number of stories	✓		
20A	Building height from the established grade to the roofs highest peak	✓		

## Floor Plan including:

20	Dimensioned area plan showing rooms, attached garage, breeze ways, covered porches, deck, balconies	✓		✓
21	Raised floor surfaces located more than 30 inches above the floor or grade	✓		✓
22	All exterior and interior shear walls indicated	✓		✓
23	Shear wall opening shown (Windows, Doors and Garage doors)	✓		✓
24	Show compliance with Section FBCR 310 Emergency escape and rescue opening shown in each bedroom (net clear opening shown) and Show compliance with Section FBCR 613.2 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.	✓		✓
25	Safety glazing of glass where needed	✓		✓
26	Fireplaces types (gas appliance) (vented or non-vented) or wood burning with Hearth (see chapter 10 of FBCR)			✓
27	Show stairs with dimensions (width, tread and riser and total run) details of guardrails, Handrails			✓
28	Identify accessibility of bathroom (see FBCR SECTION 322)	✓		✓



N/A

45	Show required amount of ventilation opening for under-floor spaces			/
46	Show required covering of ventilation opening			/
47	Show the required access opening to access to under-floor spaces			/
48	Show the sub-floor structural panel sheathing type, thickness and fastener schedule on the edges & interior of the areas structural panel sheathing			/
49	Show Draftstopping, Fire caulking and Fire blocking			/
50	Show fireproofing requirements for garages attached to living spaces, per FBCR section 309			/
51	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		
		YES	NO	N/A
52	Stud type, grade, size, wall height and oc spacing for all load bearing or shear walls	/		
53	Fastener schedule for structural members per table FBCR 602.3 are to be shown	/		
54	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	/		
55	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	/		
56	Show sizes, type, span lengths and required number of support jack studs, king studs for shear wall opening and girder or header per FBCR Table 502.5 (1)	/		
57	Indicate where pressure treated wood will be placed	/		
58	Show all wall structural panel sheathing, grade, thickness and show fastener schedule for structural panel sheathing edges & intermediate areas	/		
59	A detail showing gable truss bracing, wall balloon framing details or/ and wall hinge bracing detail	/		

## **FBCR :ROOF SYSTEMS:**

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

## **FBCR 802:Conventional Roof Framing Layout**

N/A

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

**Electrical layout shown including**

85	Show Switches, receptacles outlets, lighting fixtures and Ceiling fans	✓			✓
86	Show all 120-volt, single phase, 15- and 20-ampere branch circuits outlets required to be protected by <b>Ground-Fault Circuit Interrupter (GFCI) Article 210.8 A</b>	✓			✓
87	Show the location of smoke detectors & Carbon monoxide detectors	✓			✓
88	Show service panel, sub-panel, location(s) and total ampere ratings	✓			✓
89	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.  <b>For structures</b> 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	✓			✓
90	Appliances and HVAC equipment and disconnects	✓			✓
91	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 <b>Combination arc-fault circuit interrupter</b> , Protection device.	✓			✓

**Disclosure Statement for Owner Builders** *If you as the applicant will be acting as an owner/builder under section 489.103(7) of the Florida Statutes, submit the required owner builder disclosure statement form.*

**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 preformed.

<p align="center"><b>GENERAL REQUIREMENTS:</b> APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL</p>	<p align="center">Items to Include- Each Box shall be Circled as Applicable</p>
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**THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS**

		YES	NO	N/A	
92	<b>Building Permit Application</b> A current Building Permit Application form is to be completed and submitted for all residential projects	✓			✓
93	<b>Parcel Number</b> The parcel number (Tax ID number) from the Property Appraiser (386) 758-1084 is required. A copy of property deed is also requested	✓			✓
94	<b>Environmental Health Permit or Sewer Tap Approval</b> A copy of a approved Columbia County Environmental Health (386) 758-1058			✓	✓
95	<b>City of Lake City</b> A permit showing an approved waste water sewer tap				✓
96	<b>Toilet facilities shall be provided for all construction sites</b>	✓			✓
97	<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.			✓	✓



98	<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			
99	CERTIFIED FINISHED FLOOR ELEVATIONS will be required on any project where the base flood elevation (100 year flood) has been established	✓		
100	A development permit will also be required. Development permit cost is \$50.00			
101	<b>Driveway Connection:</b> 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. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver (\$50.00). All culvert waivers are sent to the Columbia County Public Works Department for approval or denial.	✓		
102	<b>911 Address:</b> If the project is located in an area where a 911 address has not been issued, then application for a 911 address must be applied for and <b>received</b> through the Columbia County Emergency Management Office of 911 Addressing Department (386) 758-1125	✓		

#### Section R101.2.1 of the Florida Building Code Residential:

The provisions of Chapter 1, Florida Building Code, Building shall govern the administration and enforcement of the Florida Building Code, Residential.

Section 105 of the Florida Building Code defines the:

#### Time limitation 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 such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

#### Single-family residential dwelling.

Section 105.3.4 A building permit for a single-family residential dwelling must be issued within 30 working days of application therefor unless unusual circumstances require a longer time for processing the application or unless the permit application fails to satisfy the Florida Building Code or the enforcing agency's laws or ordinances.

#### Permit intent.

Section 105.4.1: A permit issued shall be constructed to be a license to proceed with the work and not as authority to violate, cancel, alter or set aside any of the provisions of the technical codes, nor shall issuance of a permit prevent the building official from thereafter requiring a correction of errors in plans, construction or violations of this code. Every permit issued shall become invalid unless the work authorized by such permit is commenced within six months after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of six months after the time the work is commenced.

*John Connors*

**Columbia County Building Department  
Culvert Waiver**

**Culvert Waiver No.  
000001935**

DATE: 04/02/2012

BUILDING PERMIT NO. 30046

APPLICANT BRYAN ZECHER

PHONE 386.752.8653

ADDRESS POB 815

LAKE CITY

FL 32056

OWNER ERIC KOCH

PHONE 860.280.6905

ADDRESS 143 SW MAPLE PLACE

LAKE CITY

FL 32024

CONTRACTOR BRYAN ZECHER

PHONE 386.752.8653

LOCATION OF PROPERTY 90-W TO C-252-B, TL TO 1 MILE TO PRESERVE, TR INTO PRESERVE AND GO TO  
1ST. L THEN TO 1ST. R ON MAPLE PLACE AND SITE IS ON R.

SUBDIVISION/LOT/BLOCK/PHASE/UNIT PRES. @ LAUREL LKS

127

1

PARCEL ID # 03-4S-16-02731-127

I HEREBY CERTIFY THAT I UNDERSTAND AND WILL FULLY COMPLY WITH THE DECISION OF THE COLUMBIA  
COUNTY PUBLIC WORKS DEPARTMENT IN CONNECTION WITH THE HEREIN PROPOSED APPLICATION.

SIGNATURE: *[Signature]*

A SEPARATE CHECK IS REQUIRED  
MAKE CHECKS PAYABLE TO BCC

Amount Paid 50.00

**PUBLIC WORKS DEPARTMENT USE ONLY**

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS APPLICATION AND DETERMINED THAT THE  
CULVERT WAIVER IS:

✓ APPROVED

NOT APPROVED - NEEDS A CULVERT PERMIT

COMMENTS: \_\_\_\_\_

SIGNED: *[Signature]*

DATE: 4-3-12

ANY QUESTIONS PLEASE CONTACT THE PUBLIC WORKS DEPARTMENT AT 386-752-5955.

135 NE Hernando Ave., Suite B-21  
Lake City, FL 32055  
Phone: 386-758-1008 Fax: 386-758-2160





## SUBCONTRACTOR VERIFICATION FORM

 APPLICATION NUMBER 1203-40 CONTRACTOR B. ZELNER PHONE 752-8653

THIS FORM MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A PERMIT

In Columbia County 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 permit. Per Florida Statute 440 and Ordinance 89-6, a contractor shall require all subcontractors to provide evidence of workers' compensation or exemption, general liability insurance and a valid Certificate of Competency license in Columbia County.

*Any changes, the permitted contractor is responsible for the corrected form being submitted to this office prior to the start of that subcontractor beginning any work. Violations will result in stop work orders and/or fines.*

<input checked="" type="checkbox"/> <b>ELECTRICAL</b> 76	Print Name <u>Marc Matthews</u> License #: <u>ER-0014352</u>	Signature <u>[Signature]</u> Phone #: <u>386-344-2029</u>
<input checked="" type="checkbox"/> <b>MECHANICAL/A/C</b> 487	Print Name <u>Glen Jones A/C</u> License #: <u>CAC051486</u>	Signature <u>[Signature]</u> Phone #: <u>386-752-5389</u>
<b>PLUMBING/GAS</b>	Print Name <u>Wolf Plumbing</u> License #:	Signature _____ Phone #:
<b>ROOFING</b>	Print Name <u>Mac Johnson Roofing</u> License #:	Signature _____ Phone #:
<b>SHEET METAL</b>	Print Name <u>N/A</u> License #:	Signature _____ Phone #:
<b>FIRE SYSTEM/SPRINKLER</b>	Print Name <u>N/A</u> License #:	Signature _____ Phone #:
<b>SOLAR</b>	Print Name <u>N/A</u> License #:	Signature _____ Phone #:

Specialty License	License Number	Sub-Contractors Printed Name	Sub-Contractors Signature
MASON		N/A	
CONCRETE FINISHER		Dorzi Spradley	
<input checked="" type="checkbox"/> FRAMING	001141	Jeff Nichols	[Signature]
<input checked="" type="checkbox"/> INSULATION	000240	Will Sikes	[Signature]
STUCCO		N/A	
<input checked="" type="checkbox"/> DRYWALL	000345	Wade Heitzman	[Signature]
PLASTER		N/A	
<input checked="" type="checkbox"/> CABINET INSTALLER 853	CBC054575	Bryan Zehner	[Signature]
<input checked="" type="checkbox"/> PAINTING	000330	Bobby Touchton	[Signature]
ACOUSTICAL CEILING		N/A	
GLASS		N/A	
<input checked="" type="checkbox"/> CERAMIC TILE 853	CBC054575	Bryan Zehner	[Signature]
FLOOR COVERING	"	"	[Signature]
<input checked="" type="checkbox"/> ALUM/VINYL SIDING	CC000166	Mike Nickelson	[Signature]
GARAGE DOOR		DD Garage Door	
METAL BLDG ERECTOR		N/A	

**F. S. 440.103 Building permits; identification of minimum premium policy.**--Every employer shall, as a condition to applying for and receiving a building permit, show proof and certify to the permit issuer that it has secured compensation for its employees under this chapter as provided in ss. 440.10 and 440.38, and shall be presented each time the employer applies for a building permit.



# Kougnouff SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER

1203-40

CONTRACTOR

Bryan Zecher

PHONE

752-8653

THIS FORM MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A PERMIT

In Columbia County 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 permit. Per Florida Statute 440 and Ordinance 89-6, a contractor shall require all subcontractors to provide evidence of workers' compensation or exemption, general liability insurance and a valid Certificate of Competency license in Columbia County.

Any changes, the permitted contractor is responsible for the corrected form being submitted to this office prior to the start of that subcontractor beginning any work. Violations will result in stop work orders and/or fines.

<input checked="" type="checkbox"/> ELECTRICAL 76	Print Name <u>Marc Matthews</u> License #: <u>ER-0014352</u>	Signature <u>[Signature]</u> Phone #: <u>344-2029</u>
<input checked="" type="checkbox"/> MECHANICAL/ A/C	Print Name <u>Louis Weeks/Glenn</u> License #: <u>CAC-051486</u>	Signature <u>[Signature]</u> Phone #: <u>752-5084</u>
<input checked="" type="checkbox"/> PLUMBING/ GAS	Print Name <u>Buck Boyette</u> License #: <u>CFCO 21540</u>	Signature <u>[Signature]</u> Phone #: <u>(386) 752-0776</u>
ROOFING	Print Name <u>Mac Johnson</u> License #: <u>RC0061384</u>	Signature <u>(see attached)</u> Phone #: <u>352-472-4943</u>
SHEET METAL	Print Name <u>N/A</u> License #:	Signature _____ Phone #:
FIRE SYSTEM/ SPRINKLER	Print Name <u>N/A</u> License #:	Signature _____ Phone #:
SOLAR	Print Name <u>N/A</u> License #:	Signature _____ Phone #:

Specialty License	License Number	Sub-Contractors Printed Name	Sub-Contractors Signature
MASON	<del>000297</del>	<del>[Name]</del>	<del>[Signature]</del>
CONCRETE FINISHER	00063	Darrell Spradley	<u>[Signature]</u>
FRAMING	CBC054575	Bryan Zecher	
INSULATION	00240	Will Sylkes	
STUCCO		N/A	
DRYWALL	<del>0006810</del>	<del>[Name]</del>	<del>[Signature]</del>
PLASTER		N/A	
CABINET INSTALLER	CBC054575	Bryan Zecher	
PAINTING	000330	Bobby Touchton	<u>[Signature]</u>
ACOUSTICAL CEILING		N/A	
GLASS		N/A	
CERAMIC TILE	<del>000188</del>	<del>[Name]</del>	<del>[Signature]</del>
FLOOR COVERING	<del>710</del>	<del>[Name]</del>	<del>[Signature]</del>
ALUM/VINYL SIDING	0001166	Mike Nicholson	
GARAGE DOOR	<del>542138101</del>	<del>[Name]</del>	
METAL BLDG ERECTOR			

F. S. 440.103 Building permits; identification of minimum premium policy.--Every employer shall, as a condition to applying for and receiving a building permit, show proof and certify to the permit issuer that it has secured compensation for its employees under this chapter as provided in ss. 440.10 and 440.38, and shall be presented each time the employer applies for a building permit.



## SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER

1203-48

CONTRACTOR

B. ZECHER

PHONE

752-8653

THIS FORM MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A PERMIT

In Columbia County 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 permit. Per Florida Statute 440 and Ordinance 89-6, a contractor shall require all subcontractors to provide evidence of workers' compensation or exemption, general liability insurance and a valid Certificate of Competency license in Columbia County.

Any changes, the permitted contractor is responsible for the corrected form being submitted to this office prior to the start of that subcontractor beginning any work. Violations will result in stop work orders and/or fines.

ELECTRICAL	Print Name: <u>Marc Matthews</u> License #: <u>ER-0014352</u>	Signature: <u>[Signature]</u> Phone #: <u>344-2029</u>
MECHANICAL/ A/C <input checked="" type="checkbox"/>	Print Name: <u>Glenn Jones</u> License #: <u>CAC-051486</u>	Signature: <u>[Signature]</u> Phone #: <u>867-0424</u>
PLUMBING/ GAS <input checked="" type="checkbox"/> 1081	Print Name: <u>Walter Plumbing</u> License #: <u>CFC 051621</u>	Signature: <u>[Signature]</u> Phone #: <u>623-7148</u>
ROOFING - D/S -	Print Name: <u>Mac Johnson</u> License #: <u>RC 0061384</u>	Signature: <u>[Signature]</u> Phone #: <u>352-472-4943</u>
SHEET METAL	Print Name: <u>N/A</u> License #: <u></u>	Signature: <u></u> Phone #: <u></u>
FIRE SYSTEM/ SPRINKLER	Print Name: <u>N/A</u> License #: <u></u>	Signature: <u></u> Phone #: <u></u>
SOLAR	Print Name: <u>N/A</u> License #: <u></u>	Signature: <u></u> Phone #: <u></u>

Specialty License	License Number	Sub-Contractors Printed Name	Sub-Contractors Signature
MASON			
CONCRETE FINISHER	<del>000240</del>	<del>Tommy E. (122-122)</del>	
FRAMING			
INSULATION	000240	Sykes Insulation (365-1404)	
STUCCO	<del>000240</del>	<del>Ken Smith (623-4512)</del>	
DRYWALL	000345	Kim Heitman (365-0163)	
PLASTER	N/A		
CABINET INSTALLER		<del>Mobile Tunes (616-11-1010)</del>	
PAINTING	000330	Bobby Touchton (466-4686)	<u>[Signature]</u>
ACOUSTICAL CEILING	N/A		
GLASS	N/A		
CERAMIC TILE	<del>70</del>	<del>Mark Wilson (616-11-1010)</del>	
FLOOR COVERING	<del>70</del>	<del>Mark Wilson (616-11-1010)</del>	
ALUM/VINYL SIDING	000166	Mike Nicholson (623-2376)	<u>[Signature]</u>
GARAGE DOOR	3200-44	D+D Garage Drs (Kavir)	<u>[Signature]</u>
METAL BLDG ERECTOR	N/A		

F. 5. 440.103 Building permits; Identification of minimum premium policy.--Every employer shall, as a condition to applying for and receiving a building permit, show proof and certify to the permit issuer that it has secured compensation for its employees under this chapter as provided in ss. 440.10 and 440.38, and shall be presented each time the employer applies for a building permit.

Contractor Form; Subcontractor form: 0/00



# SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER 1203-46 CONTRACTOR B. Zeher PHONE 752-8653  
THIS FORM MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A PERMIT

In Columbia County 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 permit. Per Florida Statute 440 and Ordinance 89-6, a contractor shall require all subcontractors to provide evidence of workers' compensation or exemption, general liability insurance and a valid Certificate of Competency license in Columbia County.

*Any changes, the permitted contractor is responsible for the corrected form being submitted to this office prior to the start of that subcontractor beginning any work. Violations will result in stop work orders and/or fines.*

<b>ELECTRICAL</b>	Print Name <u>Marc Matthews</u>	Signature _____	Phone # _____
	License #: _____		
<b>MECHANICAL/ A/C</b>	Print Name <u>Glenn Jones A/C</u>	Signature <u>[Signature]</u>	Phone # _____
	License #: <u>CAC051486</u>		
<b>PLUMBING/ GAS</b>	Print Name <u>Wolf Plumbing</u>	Signature <u>[Signature]</u>	Phone #: <u>316-935-0616</u>
	License #: <u>CFC051621</u>		
<b>ROOFING</b>	Print Name <u>McJohnson Roofing</u>	Signature _____	Phone #: _____
	License #: _____		
<b>SHEET METAL</b>	Print Name <u>N/A</u>	Signature _____	Phone #: _____
	License #: _____		
<b>FIRE SYSTEM/ SPRINKLER</b>	Print Name <u>N/A</u>	Signature _____	Phone #: _____
	License #: _____		
<b>SOLAR</b>	Print Name <u>N/A</u>	Signature _____	Phone #: _____
	License #: _____		

Specialty License	License Number	Sub-Contractors Printed Name	Sub-Contractors Signature
MASON	<del>000097</del>	<del>Kenny Lande</del>	<del>[Signature]</del>
CONCRETE FINISHER	<del>000097</del>	<del>[Name]</del>	<del>[Signature]</del>
FRAMING	CBC054575	Bryan Zeher	[Signature]
INSULATION		Will Sikes	[Signature]
STUCCO		N/A	
DRYWALL		Kim Heitzman (wade)	[Signature]
PLASTER		N/A	
CABINET INSTALLER	CBC054575	Bryan Zeher	[Signature]
PAINTING	000330	Bobby Touchton	[Signature]
ACOUSTICAL CEILING		N/A	
GLASS		N/A	
CERAMIC TILE	CBC054575	Bryan Zeher	[Signature]
FLOOR COVERING	"	"	[Signature]
ALUM/VINYL SIDING	CB000166	Mike Nicholson	[Signature]
GARAGE DOOR	CB01258205	DD Garage Door	[Signature]
METAL BLDG ERECTOR		N/A	

**F. S. 440.103 Building permits; identification of minimum premium policy.**—Every employer shall, as a condition to applying for and receiving a building permit, show proof and certify to the permit issuer that it has secured compensation for its employees under this chapter as provided in ss. 440.10 and 440.38, and shall be presented each time the employer applies for a building permit.



Category/Subcategory (cont.)	Manufacturer	Product Description	Approval Number(s)
13. Liquid Applied Roof Sys			
14. Cements-Adhesives – Coatings			
15. Roof Tile Adhesive			
16. Spray Applied Polyurethane Roof			
17. Other			
<b>E. SHUTTERS</b>			
1. Accordion			
2. Bahama			
3. Storm Panels			
4. Colonial			
5. Roll-up			
6. Equipment			
7. Others			
<b>F. SKYLIGHTS</b>			
1. Skylight			
2. Other			
<b>G. STRUCTURAL COMPONENTS</b>			
1. Wood connector/anchor	USPC	anchors	FL5631-R1
2. Truss plates			
3. Engineered lumber			
4. Railing			
5. Coolers-freezers			
6. Concrete Admixtures			
7. Material			
8. Insulation Forms			
9. Plastics			
10. Deck-Roof			
11. Wall			
12. Sheds			
13. Other			
<b>H. NEW EXTERIOR ENVELOPE PRODUCTS</b>			
1.			
2.			

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) the performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.

I understand these products may have to be removed if approval cannot be demonstrated during inspection.

Contractor or Contractor's Authorized Agent Signature

Print Name

Date

Location

**FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION**

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: 1202082  
 Street:  
 City, State, Zip: Lake City, FL,  
 Owner: Koch  
 Design Location: FL, Gainesville

Builder Name: Bryan Zecher  
 Permit Office:  
 Permit Number:  
 Jurisdiction: 221000

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	4
5. Is this a worst case?	Yes
6. Conditioned floor area above grade (ft <sup>2</sup> )	2229
Conditioned floor area below grade (ft <sup>2</sup> )	0
7. Windows (341.0 sqft.)	Description Area
a. U-Factor:	DbI, U=0.30 341.00 ft <sup>2</sup>
SHGC:	SHGC=0.30
b. U-Factor:	N/A ft <sup>2</sup>
SHGC:	
c. U-Factor:	N/A ft <sup>2</sup>
SHGC:	
d. U-Factor:	N/A ft <sup>2</sup>
SHGC:	
Area Weighted Average Overhang Depth:	20.321 ft.
Area Weighted Average SHGC:	0.300
8. Floor Types (2229.0 sqft.)	Insulation Area
a. Slab-On-Grade Edge Insulation	R=0.0 2229.00 ft <sup>2</sup>
b. N/A	R= ft <sup>2</sup>
c. N/A	R= ft <sup>2</sup>

9. Wall Types (2217.8 sqft.)	Insulation Area
a. Frame - Wood, Exterior	R=13.0 2010.80 ft <sup>2</sup>
b. Frame - Wood, Adjacent	R=13.0 207.00 ft <sup>2</sup>
c. N/A	R= ft <sup>2</sup>
d. N/A	R= ft <sup>2</sup>
10. Ceiling Types (2325.0 sqft.)	Insulation Area
a. Under Attic (Vented)	R=30.0 2325.00 ft <sup>2</sup>
b. N/A	R= ft <sup>2</sup>
c. N/A	R= ft <sup>2</sup>
11. Ducts	R ft <sup>2</sup>
a. Sup: Attic, Ret: Attic, AH: RoomsInBlock1	6 445.8
12. Cooling systems	kBtu/hr Efficiency
a. Central Unit	50.0 SEER:13.00
13. Heating systems	kBtu/hr Efficiency
a. Electric Heat Pump	50.0 HSPF:7.70
14. Hot water systems	
a. Electric	Cap: 50 gallons
	EF: 0.920
b. Conservation features	
None	
15. Credits	Pstat

Glass/Floor Area: 0.153

Total Proposed Modified Loads: 39.15  
 Total Standard Reference Loads: 49.22

**PASS**

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

PREPARED BY: ERAN BEAMSLER  
 DATE: 3/15/12

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

OWNER/AGENT: [Signature]  
 DATE: 3/15/12

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 403.2.2.1.1.
- Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist





**PROJECT**

Title:	1202082	Bedrooms:	4	Address Type:	Street Address
Building Type:	FLProp2010	Conditioned Area:	2229	Lot #	
Owner:	Koch	Total Stories:	1	Block/SubDivision:	
# of Units:	1	Worst Case:	Yes	PlatBook:	
Builder Name:	Bryan Zecher	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	IECC Zone	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	2	32	92	70	75	1305.5	51	Medium

**BLOCKS**

Number	Name	Area	Volume
1	Block1	2229	20061

**SPACES**

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	RoomsInBlock1	2229	20061	Yes	4	4	1	Yes	Yes	Yes

**FLOORS**

✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	RoomsInBlock1	247 ft	0	2229 ft²	----	0.3	0.3	0.4

**ROOF**

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Gable or shed	Composition shingles	2493 ft²	558 ft²	Dark	0.96	No	0.9	No	0	26.6

**ATTIC**

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	2229 ft²	N	N

**CEILING**

✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	RoomsInBlock1	30	2325 ft²	0.11	Wood

## WALLS

✓	#	Ornt	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	N	Exterior	Frame - Wood	RoomsInBloc	13	53	5	9		480.75 ft²		0.23	0.75	0
	2	E	Exterior	Frame - Wood	RoomsInBloc	13	67		9		603 ft²		0.23	0.75	0
	3	S	Exterior	Frame - Wood	RoomsInBloc	13	33	2	9		298.5 ft²		0.23	0.75	0
	4	W	Exterior	Frame - Wood	RoomsInBloc	13	69	10	9		628.5 ft²		0.23	0.75	0
	5	N	Garage	Frame - Wood	RoomsInBloc	13	23		9		207 ft²		0.23	0.01	0

## DOORS

✓	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
	1	N	Insulated	RoomsInBloc	None	0.4	3		8		24 ft²
	2	S	Wood	RoomsInBloc	None	0.460000	3		8		36 ft²
	3	N	Insulated	RoomsInBloc	None	0.4	3		8		20 ft²

## WINDOWS

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

✓	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth	Separation	Int Shade	Screening
	1	N	1	Metal	Low-E Double	Yes	0.3	0.3	N	72 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	2	E	2	Metal	Low-E Double	Yes	0.3	0.3	N	18 ft²	99 ft 6 in	1 ft 6 in	HERS 2006	None
	3	N	1	Metal	Low-E Double	Yes	0.3	0.3	N	72 ft²	10 ft 6 in	0 ft 6 in	HERS 2006	None
	4	W	4	Metal	Low-E Double	Yes	0.3	0.3	N	36 ft²	99 ft 6 in	1 ft 6 in	HERS 2006	None
	5	W	4	Metal	Low-E Double	Yes	0.3	0.3	N	15 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	6	E	2	Metal	Low-E Double	Yes	0.3	0.3	N	8 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	7	E	2	Metal	Low-E Double	Yes	0.3	0.3	N	30 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	8	S	3	Metal	Low-E Double	Yes	0.3	0.3	N	12 ft²	8 ft 6 in	2 ft 0 in	HERS 2006	None
	9	S	3	Metal	Low-E Double	Yes	0.3	0.3	N	12 ft²	12 ft 16 in	1 ft 0 in	HERS 2006	None
	10	S	3	Metal	Low-E Double	Yes	0.3	0.3	N	36 ft²	8 ft 6 in	2 ft 0 in	HERS 2006	None
	11	S	3	Metal	Low-E Double	Yes	0.3	0.3	N	4 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	12	W	4	Metal	Low-E Double	Yes	0.3	0.3	N	20 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	13	W	4	Metal	Low-E Double	Yes	0.3	0.3	N	6 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None

## GARAGE

✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
	1	434.16 ft²	434.16 ft²	61 ft	9 ft	1

## INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	BySpaces	Proposed SLA	0.000360	2104.8	115.55	217.31	0.2771	6.2952



### HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
✓	1	Electric Heat Pump	None	HSPF: 7.7	50 kBtu/hr	1	sys#1

### COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit	Split	SEER: 13	50 kBtu/hr	1500 cfm	0.75	1	sys#1

### HOT WATER SYSTEM

✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	None	Garage	0.92	50 gal	70 gal	120 deg	None

### SOLAR HOT WATER SYSTEM

✓	FSEC	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
✓	None	None			ft²		

### DUCTS

✓	#	Location	Supply R-Value	Area	Location	Return Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF	HVAC # Heat	HVAC # Cool
✓	1	Attic	6	445.8 ft	Attic	111.45	DSE=0.88	RoomsInBl	0.0 cfm	0.00 %	0.00	0.60	1	1

### TEMPERATURES

Programable Thermostat: Y														Ceiling Fans:											
Cooling	<input checked="" type="checkbox"/>	Jan	<input checked="" type="checkbox"/>	Feb	<input checked="" type="checkbox"/>	Mar	<input checked="" type="checkbox"/>	Apr	<input checked="" type="checkbox"/>	May	<input checked="" type="checkbox"/>	Jun	<input checked="" type="checkbox"/>	Jul	<input checked="" type="checkbox"/>	Aug	<input checked="" type="checkbox"/>	Sep	<input checked="" type="checkbox"/>	Oct	<input checked="" type="checkbox"/>	Nov	<input checked="" type="checkbox"/>	Dec	
Heating	<input checked="" type="checkbox"/>	Jan	<input checked="" type="checkbox"/>	Feb	<input checked="" type="checkbox"/>	Mar	<input checked="" type="checkbox"/>	Apr	<input checked="" type="checkbox"/>	May	<input checked="" type="checkbox"/>	Jun	<input checked="" type="checkbox"/>	Jul	<input checked="" type="checkbox"/>	Aug	<input checked="" type="checkbox"/>	Sep	<input checked="" type="checkbox"/>	Oct	<input checked="" type="checkbox"/>	Nov	<input checked="" type="checkbox"/>	Dec	
Venting	<input checked="" type="checkbox"/>	Jan	<input checked="" type="checkbox"/>	Feb	<input checked="" type="checkbox"/>	Mar	<input checked="" type="checkbox"/>	Apr	<input checked="" type="checkbox"/>	May	<input checked="" type="checkbox"/>	Jun	<input checked="" type="checkbox"/>	Jul	<input checked="" type="checkbox"/>	Aug	<input checked="" type="checkbox"/>	Sep	<input checked="" type="checkbox"/>	Oct	<input checked="" type="checkbox"/>	Nov	<input checked="" type="checkbox"/>	Dec	
Thermostat Schedule: HERS 2006 Reference														Hours											
Schedule Type			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	68	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	68	66											

# Florida Code Compliance Checklist

Florida Department of Business and Professional Regulations  
Residential Whole Building Performance Method

ADDRESS:

Lake City, FL,

PERMIT #:

**MANDATORY REQUIREMENTS SUMMARY - See individual code sections for full details.**

COMPONENT	SECTION	SUMMARY OF REQUIREMENT(S)	CHECK
Air leakage	402.4	To be caulked, gasketed, weatherstripped or otherwise sealed. Recessed lighting IC-rated as meeting ASTM E 283. Windows and doors = 0.30 cfm/sq.ft. Testing or visual inspection required. Fireplaces: gasketed doors & outdoor combustion air. Must complete envelope leakage report or visually verify Table 402.4.2.	
Thermostat & controls	403.1	At least one thermostat shall be provided for each separate heating and cooling system. Where forced-air furnace is primary system, programmable thermostat is required. Heat pumps with supplemental electric heat must prevent supplemental heat when compressor can meet the load.	
Ducts	403.2.2	All ducts, air handlers, filter boxes and building cavities which 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 503.2.7.2 of this code.	
	403.3.3	Building framing cavities shall not be used as supply ducts.	
Water heaters	403.4	Heat trap required for vertical pipe risers. Comply with efficiencies in Table 403.4.3.2. Provide switch or clearly marked circuit breaker (electric) or shutoff (gas). Circulating system pipes insulated to = R-2 + accessible manual OFF switch.	
Mechanical ventilation	403.5	Homes designed to operate at positive pressure or with mechanical ventilation systems shall not exceed the minimum ASHRAE 62 level. No make-up air from attics, crawlspaces, garages or outdoors adjacent to pools or spas.	
Swimming Pools & Spas	403.9	Pool pumps and pool pump motors with a total horsepower (HP) of = 1 HP shall have the capability of operating at two or more speeds. Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency=78% (82% after 4/16/13). Heat pump pool heaters minimum COP= 4.0.	
Cooling/heating equipment	403.6	Sizing calculation performed & attached. Minimum efficiencies per Tables 503.2.3. Equipment efficiency verification required. Special occasion cooling or heating capacity requires separate system or variable capacity system. Electric heat >10kW must be divided into two or more stages.	
Ceilings/knee walls	405.2.1	R-19 space permitting.	



# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX\* = 80

The lower the EnergyPerformance Index, the more efficient the home.

, Lake City, FL,

1. New construction or existing	New (From Plans)	9. Wall Types	Insulation	Area
2. Single family or multiple family	Single-family	a. Frame - Wood, Exterior	R=13.0	2010.80 ft <sup>2</sup>
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	207.00 ft <sup>2</sup>
4. Number of Bedrooms	4	c. N/A	R=	ft <sup>2</sup>
5. Is this a worst case?	Yes	d. N/A	R=	ft <sup>2</sup>
6. Conditioned floor area (ft <sup>2</sup> )	2229	10. Ceiling Types	Insulation	Area
7. Windows**	Description	a. Under Attic (Vented)	R=30.0	2325.00 ft <sup>2</sup>
a. U-Factor:	DbI, U=0.30	b. N/A	R=	ft <sup>2</sup>
SHGC:	SHGC=0.30	c. N/A	R=	ft <sup>2</sup>
b. U-Factor:	N/A	11. Ducts		R
SHGC:		a. Sup: Attic, Ret: Attic, AH: RoomsInBlock1		6 445.8
c. U-Factor:	N/A			
SHGC:		12. Cooling systems	kBtu/hr	Efficiency
d. U-Factor:	N/A	a. Central Unit	50.0	SEER:13.00
SHGC:				
Area Weighted Average Overhang Depth:	20.321 ft.	13. Heating systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.300	a. Electric Heat Pump	50.0	HSPF:7.70
8. Floor Types	Insulation	Area		
a. Slab-On-Grade Edge Insulation	R=0.0	2229.00 ft <sup>2</sup>		
b. N/A	R=	ft <sup>2</sup>		
c. N/A	R=	ft <sup>2</sup>		
		14. Hot water systems		Cap: 50 gallons
		a. Electric		EF: 0.92
		b. Conservation features		
		None		
		15. Credits		Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction 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: \_\_\_\_\_



\*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida EnergyGauge Rating. Contact the EnergyGauge Hotline at (321) 638-1492 or see the EnergyGauge web site at [energygauge.com](http://energygauge.com) for information and a list of certified Raters. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

\*\*Label required by Section 303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

# Residential System Sizing Calculation

## Summary

Koch

Project Title:  
1202082

Lake City, FL

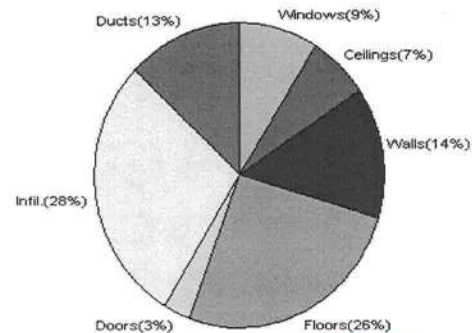
3/15/2012

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(54gr.)			
Winter design temperature(MJ8 99%)	33 F	Summer design temperature(MJ8 99%)	92 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	37 F	Summer temperature difference	17 F
<b>Total heating load calculation</b>	<b>41412 Btuh</b>	<b>Total cooling load calculation</b>	<b>42204 Btuh</b>
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	120.7 50000	Sensible (SHR = 0.75)	119.7 37500
Heat Pump + Auxiliary(0.0kW)	120.7 50000	Latent	114.9 12500
		Total (Electric Heat Pump)	118.5 50000

## WINTER CALCULATIONS

Winter Heating Load (for 2229 sqft)

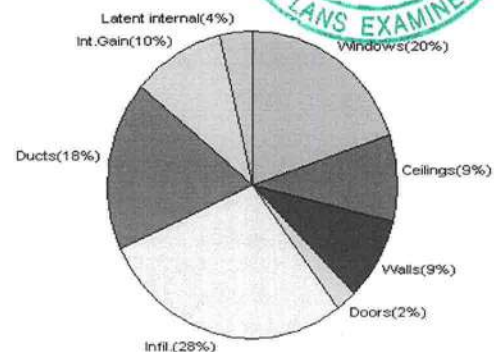
Load component			Load
Window total	341	sqft	3785 Btuh
Wall total	1797	sqft	5901 Btuh
Door total	80	sqft	1264 Btuh
Ceiling total	2325	sqft	2740 Btuh
Floor total	2229	sqft	10784 Btuh
Infiltration	288	cfm	11680 Btuh
Duct loss			5259 Btuh
<b>Subtotal</b>			<b>41412 Btuh</b>
Ventilation	0	cfm	0 Btuh
<b>TOTAL HEAT LOSS</b>			<b>41412 Btuh</b>



## SUMMER CALCULATIONS

Summer Cooling Load (for 2229 sqft)

Load component			Load
Window total	341	sqft	8341 Btuh
Wall total	1797	sqft	3640 Btuh
Door total	80	sqft	956 Btuh
Ceiling total	2325	sqft	3850 Btuh
Floor total			0 Btuh
Infiltration	216	cfm	4025 Btuh
Internal gain			4240 Btuh
Duct gain			6271 Btuh
Sens. Ventilation	0	cfm	0 Btuh
Blower Load			0 Btuh
<b>Total sensible gain</b>			<b>31323 Btuh</b>
Latent gain(ducts)			1377 Btuh
Latent gain(infiltration)			7903 Btuh
Latent gain(ventilation)			0 Btuh
Latent gain(internal/occupants/other)			1600 Btuh
<b>Total latent gain</b>			<b>10880 Btuh</b>
<b>TOTAL HEAT GAIN</b>			<b>42204 Btuh</b>



8th Edition

EnergyGauge® System Sizing

PREPARED BY: *Erin Beasley*

DATE: *3/15/12*



# System Sizing Calculations - Winter

## Residential Load - Whole House Component Details

Koch

Project Title:

1202082

Lake City, FL

Building Type: User

3/15/2012

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 37.0 F (MJ8 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 0.30	Metal	0.30	NW	72.0		11.1	799 Btuh
2	2, NFRC 0.30	Metal	0.30	NE	18.0		11.1	200 Btuh
3	2, NFRC 0.30	Metal	0.30	NW	72.0		11.1	799 Btuh
4	2, NFRC 0.30	Metal	0.30	SW	36.0		11.1	400 Btuh
5	2, NFRC 0.30	Metal	0.30	SW	15.0		11.1	166 Btuh
6	2, NFRC 0.30	Metal	0.30	NE	8.0		11.1	89 Btuh
7	2, NFRC 0.30	Metal	0.30	NE	30.0		11.1	333 Btuh
8	2, NFRC 0.30	Metal	0.30	SE	12.0		11.1	133 Btuh
9	2, NFRC 0.30	Metal	0.30	SE	12.0		11.1	133 Btuh
10	2, NFRC 0.30	Metal	0.30	SE	36.0		11.1	400 Btuh
11	2, NFRC 0.30	Metal	0.30	SE	4.0		11.1	44 Btuh
12	2, NFRC 0.30	Metal	0.30	SW	20.0		11.1	222 Btuh
13	2, NFRC 0.30	Metal	0.30	SW	6.0		11.1	67 Btuh
	Window Total				341.0(sqft)			3785 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	313		3.28	1027 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	547		3.28	1796 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	199		3.28	652 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	552		3.28	1811 Btuh
5	Frame - Wood	- Adj	(0.089)	13.0/0.0	187		3.28	614 Btuh
	Wall Total				1797(sqft)			5901 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Exterior,	n	(0.400)		24		14.8	355 Btuh
2	Wood - Exterior,	n	(0.460)		36		17.0	613 Btuh
3	Insulated - Garage,	n	(0.400)		20		14.8	296 Btuh
	Door Total				80(sqft)			1264Btuh
Ceilings	Type/Color/Surface	Ueff.	R-Value	Area	X	HTM=	Load	
1	Vented Attic/D/Shing	(0.032)	30.0/0.0	2325		1.2	2740 Btuh	
	Ceiling Total				2325(sqft) 2740Btuh			
Floors	Type	Ueff.	R-Value	Size	X	HTM=	Load	
1	Slab On Grade	(1.180)	0.0	247.0 ft(perim.)		43.7	10784 Btuh	
	Floor Total				2229 sqft 10784 Btuh			
	Envelope Subtotal:							24473 Btuh
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=	Load	
	Natural		0.86	20061	1.00	288.3	11680 Btuh	
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.145)						5259 Btuh	

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

Koch

Project Title:

1202082

Lake City, FL

Building Type: User

3/15/2012

<b>All Zones</b>	<b>Sensible Subtotal All Zones</b>	<b>41412 Btuh</b>
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### WHOLE HOUSE TOTALS

<b>Totals for Heating</b>	Subtotal Sensible Heat Loss Ventilation Sensible Heat Loss Total Heat Loss	41412 Btuh 0 Btuh 41412 Btuh
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### EQUIPMENT

1. Electric Heat Pump	#	50000 Btuh
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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

Koch

Project Title:  
1202082

Lake City, FL

3/15/2012

Reference City: Gainesville, FL

Temperature Difference: 17.0F(MJ8 99%)

Humidity difference: 54gr.

This calculation is for Worst Case. The house has been rotated 315 degrees.

### Component Loads for Whole House

Window	Type*					Overhang		Window Area(sqft)			HTM		Load
	Panes	SHGC	U	InSh	IS Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded	
1	2 NFRC	0.30, 0.30	No	No	NW	1.5ft	1.5ft	72.0	0.0	72.0	11	25	1819 Btuh
2	2 NFRC	0.30, 0.30	No	No	NE	99.5f	1.5ft	18.0	0.0	18.0	11	25	455 Btuh
3	2 NFRC	0.30, 0.30	No	No	NW	10.5f	0.5ft	72.0	0.0	72.0	11	25	1819 Btuh
4	2 NFRC	0.30, 0.30	No	No	SW	99.5f	1.5ft	36.0	36.0	0.0	11	27	411 Btuh
5	2 NFRC	0.30, 0.30	No	No	SW	1.5ft	1.5ft	15.0	2.9	12.1	11	27	355 Btuh
6	2 NFRC	0.30, 0.30	No	No	NE	1.5ft	1.5ft	8.0	0.0	8.0	11	25	202 Btuh
7	2 NFRC	0.30, 0.30	No	No	NE	1.5ft	1.5ft	30.0	0.0	30.0	11	25	758 Btuh
8	2 NFRC	0.30, 0.30	No	No	SE	8.5ft	2.0ft	12.0	12.0	0.0	11	27	137 Btuh
9	2 NFRC	0.30, 0.30	No	No	SE	13.3f	1.0ft	12.0	12.0	0.0	11	27	137 Btuh
10	2 NFRC	0.30, 0.30	No	No	SE	8.5ft	2.0ft	36.0	36.0	0.0	11	27	411 Btuh
11	2 NFRC	0.30, 0.30	No	No	SE	1.5ft	1.5ft	4.0	1.9	2.1	11	27	77 Btuh
12	2 NFRC	0.30, 0.30	No	No	SW	1.5ft	1.5ft	20.0	3.9	16.1	11	27	473 Btuh
13	2 NFRC	0.30, 0.30	No	No	SW	1.5ft	1.5ft	6.0	1.9	4.1	11	27	130 Btuh
	Excursion												1159 Btuh
	Window Total							341 (sqft)					8341 Btuh
Walls	Type					U-Value	R-Value	Area(sqft)		HTM		Load	
							Cav/Sheath						
1	Frame - Wood - Ext					0.09	13.0/0.0	312.8		2.1		652 Btuh	
2	Frame - Wood - Ext					0.09	13.0/0.0	547.0		2.1		1141 Btuh	
3	Frame - Wood - Ext					0.09	13.0/0.0	198.5		2.1		414 Btuh	
4	Frame - Wood - Ext					0.09	13.0/0.0	551.5		2.1		1150 Btuh	
5	Frame - Wood - Adj					0.09	13.0/0.0	187.0		1.5		282 Btuh	
	Wall Total						1797 (sqft)					3640 Btuh	
Doors	Type							Area (sqft)		HTM		Load	
1	Insulated - Exterior							24.0		11.2		269 Btuh	
2	Wood - Exterior							36.0		12.9		464 Btuh	
3	Insulated - Garage							20.0		11.2		224 Btuh	
	Door Total						80 (sqft)					956 Btuh	
Ceilings	Type/Color/Surface					U-Value	R-Value	Area(sqft)		HTM		Load	
1	Vented Attic/DarkShingle					0.032	30.0/0.0	2325.0		1.66		3850 Btuh	
	Ceiling Total						2325 (sqft)					3850 Btuh	
Floors	Type						R-Value	Size		HTM		Load	
1	Slab On Grade						0.0	2229 (ft-perimeter)		0.0		0 Btuh	
	Floor Total						2229.0 (sqft)					0 Btuh	
	Envelope Subtotal:											16788 Btuh	

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Koch

Project Title:  
1202082

Climate:FL\_GAINESVILLE\_REGIONAL\_A

Lake City, FL

3/15/2012

Infiltration	Type Natural	Average ACH 0.65	Volume(cuft) 20061	Wall Ratio 1	CFM= 216.3	Load 4025 Btuh
Internal gain		Occupants 8	Btuh/occupant X 230	Appliance +	2400	Load 4240 Btuh
	Sensible Envelope Load:					25053 Btuh
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic)			(DGM of 0.250)		6271 Btuh
	Sensible Load All Zones					31323 Btuh



# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Koch

Project Title:  
1202082

Climate:FL\_GAINESVILLE\_REGIONAL\_A

Lake City, FL

3/15/2012

### WHOLE HOUSE TOTALS

<b>Whole House Totals for Cooling</b>	<b>Sensible Envelope Load All Zones</b>	<b>25053 Btuh</b>
	Sensible Duct Load	6271 Btuh
	<b>Total Sensible Zone Loads</b>	<b>31323 Btuh</b>
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	<b>Total sensible gain</b>	<b>31323 Btuh</b>
	Latent infiltration gain (for 54 gr. humidity difference)	7903 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1377 Btuh
	Latent occupant gain (8.0 people @ 200 Btuh per person)	1600 Btuh
	Latent other gain	0 Btuh
	<b>Latent total gain</b>	<b>10880 Btuh</b>
	<b>TOTAL GAIN</b>	<b>42204 Btuh</b>

### EQUIPMENT

1. Central Unit	#	50000 Btuh
-----------------	---	------------

\*Key: Window types (Panels - 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