



ENGINEERING • INSPECTIONS  
CERTIFICATIONS • TESTING

October 1, 2010

TownHomes, LLC  
133 S.E. Newell Drive  
Lake City, FL 32056

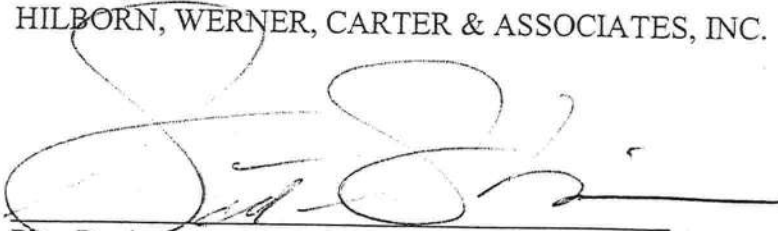
RE: Manufacturer: TownHomes, LLC  
S/N Size & Occupancy: TH-62FL; 29'-0" x 76'-0"; R-3  
HWC Plan#: 2198-0146F

To Whom It May Concern:

This is to certify that the plans for the referenced manufactured building have been reviewed and approved as being in compliance with the 2007 Florida Codes and Standards, with 2009 supplements, as noted on the approved drawings, subject to the following limitations:

1. Approval covers factory-built structure only. (Note: Any alterations to factory built structure on site voids state approval)
2. Items installed at the site are subject to review, approval, and inspection by the local authority having jurisdiction.
3. The Chapter 633 Plan Review and Inspection shall be conducted by the local fire safety inspector.
4. Signed and sealed plans shall be on file with HWC Engineering.
5. NOT Approved for High Velocity Hurricane Zone (i.e. Broward and Dade Counties)

Sincerely,  
HILBORN, WERNER, CARTER & ASSOCIATES, INC.



Plan Reviewer

**HILBORN, WERNER, CARTER AND ASSOCIATES, INC.**  
1627 SOUTH MYRTLE AVENUE CLEARWATER, FLORIDA 33756  
(727) 584-8151  
FAX: (727) 586-3343 / (727) 585-2392 / (727) 587-0447  
Modular Design Inspection

**FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION**

Florida Department of Community Affairs Residential Performance Method A

Project Name: TH-62FL  
 Street: TH-62FL  
 City, State, Zip: JACKSONVILLE, FL,  
 Owner:  
 Design Location: FL, Jacksonville

Builder Name:  
 Permit Office: *clumbly*  
 Permit Number: *28971*  
 Jurisdiction: *221000* OCT 01 2010



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 (ft <sup>2</sup> )	1991	
7. Windows	Description	Area
a. U-Factor:	Dbl, U=0.35	212.58 ft <sup>2</sup>
SHGC:	SHGC=0.33	
b. U-Factor:	Dbl, U=0.87	15.00 ft <sup>2</sup>
SHGC:	SHGC=0.66	
c. U-Factor:	Dbl, U=0.55	11.00 ft <sup>2</sup>
SHGC:	SHGC=0.60	
d. U-Factor:	N/A	ft <sup>2</sup>
SHGC:		
e. U-Factor:	N/A	ft <sup>2</sup>
SHGC:		
8. Floor Types	Insulation	Area
a. Crawlspace	R=11.0	1991.00 ft <sup>2</sup>
b. N/A	R=	ft <sup>2</sup>
c. N/A	R=	ft <sup>2</sup>

9. Wall Types	Insulation	Area
a. Frame - Wood - Exterior	R=19.0	1534.00 ft <sup>2</sup>
b. N/A	R=	ft <sup>2</sup>
c. N/A	R=	ft <sup>2</sup>
d. N/A	R=	ft <sup>2</sup>
10. Ceiling Types	Insulation	Area
a. Under Attic (Vented)	R=30.0	1991.00 ft <sup>2</sup>
b. N/A	R=	ft <sup>2</sup>
c. N/A	R=	ft <sup>2</sup>
11. Ducts		
a. Sup: Attic Ret: Attic AH: Attic Sup. R= 6, 150 ft <sup>2</sup>		
12. Cooling systems		
a. Central Unit	Cap: 54.0 kBtu/hr	
	SEER: 14	
13. Heating systems		
a. Electric Heat Pump	Cap: 54.0 kBtu/hr	
	HSPF: 7.7	
14. Hot water systems		
a. Electric	Cap: 50 gallons	
	EF: 0.9	
b. Conservation features		
None		
15. Credits		Pstat

Glass/Floor Area: 0.120

Total As-Built Modified Loads: 41.99

Total Baseline Loads: 53.25

**PASS**

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

PREPARED BY: *W. J. Carter*DATE: *9/30/10*

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

OWNER/AGENT: \_\_\_\_\_

DATE: \_\_\_\_\_

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 10-1-10 Plan No. \_\_\_\_\_

Approved By SCOTT S. FRANCIS

BUILDING OFFICIAL: *2198 0146 F*DATE: *9/30/10*

Modular Building Plans Examiner  
 Florida License No. SMP-42

**SEE MANUFACTURER'S CONTRACT  
 WITH FLORIDA DCA**

## PROJECT

Title: TH-62FL	Bedrooms: 4	Address Type: Street Address
Building Type: FLAsBuilt	Bathrooms: 0	Lot #
Owner:	Conditioned Area: 1991	SubDivision:
# of Units: 1	Total Stories: 1	PlatBook:
Builder Name:	Worst Case: Yes	Street: TH-62FL
Permit Office:	Rotate Angle: 270	County: DUVAL
Jurisdiction:	Cross Ventilation: No	City, State, Zip: JACKSONVILLE , FL ,
Family Type: Single-family	Whole House Fan: No	
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, Jacksonville	FL_JACKSONVILLE_INT	2	32	93	75	70	1281	49	Medium

## FLOORS

✓	#	Floor Type	Exposed Perimeter	Wall Ins. R-Value	Area	Floor Joist R-Value	Tile	Wood	Carpet
✓	1	Crawlspace	196 ft	0	1991 ft²	11	0	0	1

## ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	Tested	Deck Insul.	Pitch
✓	1	Gable or shed	Composition shingles	2227 ft²	498 ft²	Medium	0.96	No	0	26.6 deg

## ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
✓	1	Full attic	Vented	300	1991 ft²	N	N

## CEILING

✓	#	Ceiling Type	R-Value	Area	Framing Frac	Truss Type
✓	1	Under Attic (Vented)	30	1991 ft²	0.11	Wood

## WALLS

✓	#	Ornt	Adjacent To	Wall Type	Cavity R-Value	Area	Sheathing R-Value	Framing Fraction	Solar Absor.
✓	1	N	Exterior	Frame - Wood	19	539.33 ft²	0	0.23	0.75
✓	2	E	Exterior	Frame - Wood	19	232 ft²	0	0.23	0.75
✓	3	S	Exterior	Frame - Wood	19	560 ft²	0	0.23	0.75
✓	4	W	Exterior	Frame - Wood	19	173.33 ft²	0	0.23	0.75
✓	5	NW	Exterior	Frame - Wood	19	29.33 ft²	0	0.23	0.75

## DOORS

✓	#	Omnt	Door Type	Storms	U-Value	Area
_____	1	N	Insulated	None	0.5	21.11 ft²
_____	2	W	Insulated	None	0.5	21.11 ft²

## WINDOWS

Window orientation below is as entered. Actual orientation is modified by rotate angle shown in "Project" section above.

✓	#	Omnt	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang		Int Shade	Screening
										Depth	Separation		
_____	1	N	Vinyl	Low-E Double	Yes	0.35	0.33	N	105 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
_____	2	N	Vinyl	Low-E Double	Yes	0.35	0.33	N	2 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
_____	3	S	Vinyl	Low-E Double	Yes	0.35	0.33	N	12 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
_____	4	S	Vinyl	Low-E Double	Yes	0.35	0.33	N	30 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
_____	5	S	Vinyl	Low-E Double	Yes	0.55	0.6	N	9 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
_____	6	S	Vinyl	Low-E Double	Yes	0.55	0.6	N	2 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
_____	7	S	Vinyl	Low-E Double	Yes	0.35	0.33	N	14.69 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
_____	8	S	Vinyl	Low-E Double	Yes	0.35	0.33	N	3.89 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
_____	9	NW	Vinyl	Low-E Double	Yes	0.87	0.66	N	15 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
_____	10	W	Vinyl	Low-E Double	Yes	0.35	0.33	N	45 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None

## INFILTRATION & VENTING

✓	Method	SLA	CFM 50	ACH 50	ELA	EqLA	— Forced Ventilation —		Run Time	Fan
							Supply CFM	Exhaust CFM	Fraction	Watts
_____	Default	0.00036	1880	7.08	103.2	194.1	0 cfm	0 cfm	0	0

## COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ductless
_____	1	Central Unit	None	SEER: 14	54 kBtu/hr	1620 cfm	0.75	

## HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Ductless
_____	1	Electric Heat Pump	None	HSPF: 7.7	54 kBtu/hr	

## HOT WATER SYSTEM

✓	#	System Type	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	0.9	50 gal	70 gal	120 deg	None

## SOLAR HOT WATER SYSTEM

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

## DUCTS

✓	#	Location	Supply R-Value	Area	Location	Return Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF
	1	Attic	6	150 ft²	Attic	75 ft²	Default Leakage	Attic				

## 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

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	66	68
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66



# Code Compliance Checklist

## Residential Whole Building Performance Method A - Details

ADDRESS: TH-62FL  
JACKSONVILLE, FL,

PERMIT #:

### INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	N1106.AB.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	N1106.AB.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	N1106.AB.1.2.2	Penetrations/openings > 1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	N1106.AB.1.2.3	Between walls & ceilings; penetrations of ceiling plane to top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	N1106.AB.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	N1106.AB.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	N1106.AB.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

### OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	N1112.AB.3	Comply with efficiency requirements in Table N112.ABC.3. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	N1112.AB.2.3	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%. Heat pump pool heaters shall have a minimum COP of 4.0.	
Shower heads	N1112.AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	N1110.AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated and installed in accordance with the criteria of Section N1110.AB. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	N1107.AB.2	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	N1104.AB.1 N1102.B.1.1	Ceilings-Min. R-19. Common walls-frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

Universal Forest Products Inc., Grand Rapids, MI 49525, Weston Gorby 7.050 s May 22 2008 MiTek Industries, Inc. Tue Feb 10 07:05:40 2009 Page 1



<b>SPACING:</b> 2-0-0 <b>LOADING</b> (psf)	<b>SPACING:</b> 1-4-0 <b>LOADING</b> (psf)	<b>SPACING</b> 2-0-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES Code IBC2006/TP12002	<b>CSI</b> TC 0.87 BC 0.83 WB 0.64 (Matrix)	<b>DEFL</b> in    (loc)    l/defl    L/d Vert(LL)   -0.48   8-9   >346   240 Vert(TL)   -0.63   9   >265   180 Horz(TL)   -0.02   8   n/a   n/a	<b>PLATES GRIP</b> MT20   197/144 MII18   141/138  Weight: 70 lb
TCLL         18.0 (Ground Snow=20.0) TCDL          7.0 BCLL           *0.0 BCDL          7.0	TCLL         27.0 (Ground Snow=30.0) TCDL          10.5 BCLL           *0.0 BCDL          10.5				

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 3-2-14 oc bracing.
JOINTS	1 Brace at d(s) 12, 13

NOTES

- 1) Wind: ASCE 7-05; 130mph @24in o.c.; TCFL=2.8psf; BCDL=2.8psf; (Alt. 150mph @16in o.c.; TCFL=4.2psf; BCDL=4.2psf); h=30ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; cantilever left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate-grip DOL=1.60
- 2) TLL: ASCE 7-05; Pg=20.0 psf (ground snow); Ps=18.0 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1; IBC 1607.11.2 minimum roof live load applied where required.
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) See BEH18 DETAILS for plate placement.
- 9) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
- 10) All additional member connections shall be provided by others for forces as indicated.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 696 lb uplift at joint 8 and 560 lb uplift at joint 11.
- 13) This truss is designed in accordance with the 2006 International Building Code section 2306.1 and referenced standard ANSI/TP1.
- 14) This truss has been designed in accordance with the 2006 IBC Sec 2303.4.2, 2006 IRC Sec 802.10.2
- 15) Take precaution to keep the chords in plane, any bending or twisting of the hinge plate must be repaired before the building is put into service.
- 16) If shown, field installed members are an integral part of this design. To ensure proper performance, all field installed members must be installed prior to applying any loading to the truss.
- 17) Based on: HM584509
- 18) Revision: Code update

Universal Forest Products, Inc. 2801 EAST BELTLINE RD, NE  
PHONE (616)-364-6161 FAX (616)-365-0060 GRAND RAPIDS, MI 49525

This building component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under section 2.3 of TP11-2002. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-03 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719. J:\support\Witek\Supptemplates\wfp.tpe© copyright 2008 by: Universal Forest Products, Inc.



TR 35.0

ATTILA BODC  
PE 15834

10.15. 147

1. CODE COMPLIANCE: 2007 FLORIDA BUILDING CODE WITH 2009 SUPPLEMENT

2. DESIGN WIND VELOCITY: 110 MPH

### 3. MATERIALS:

- d. CONCRETE:  $f'_c = 3000$  PSI MIN. AT 28 DAYS
- b. REINFORCING STEEL: ASTM A615, GRADE 40 OR 60

4. ASSUMED ALLOWABLE SOIL CONTACT PRESSURE: 1500 PSF

5. PROVIDE 8"x16" CRAWLSPACE VENTILATION OPENINGS IN THE PERIMETER WALL. THE TOTAL NUMBER OF OPENINGS SHALL PROVIDE A MINIMUM OF 1 SF OF VENTILATION AREA FOR EACH 150 SF OR FRACTION THEREOF OF CRAWL SPACE AREA. SEE PLAN FOR LOCATIONS

6. COORDINATE ALL REQUIRED UTILITY OPENINGS AND EMBEDDED ITEMS WITH THE BUILDING MANUFACTURER'S APPROVED DRAWINGS

7. PRESSURE TREATED 2X8 PLATES OR METAL MOISTURE BARRIERS, REQUIRED AT THE TOP OF ALL CONCRETE FOUNDATION WALLS, TO BE INSTALLED BY OTHERS AFTER THE CONCRETE HAS ATTAINED ADEQUATE STRENGTH TO SUPPORT THE STRUCTURE



FOUNDATION DETAILS - SHAVER RESIDENCE  
334 NW JESSUP COURT, LAKE CITY, FLORIDA  
HOLLAND CONCRETE CONSTRUCTION, INC.

PROJECT NO.

7300011

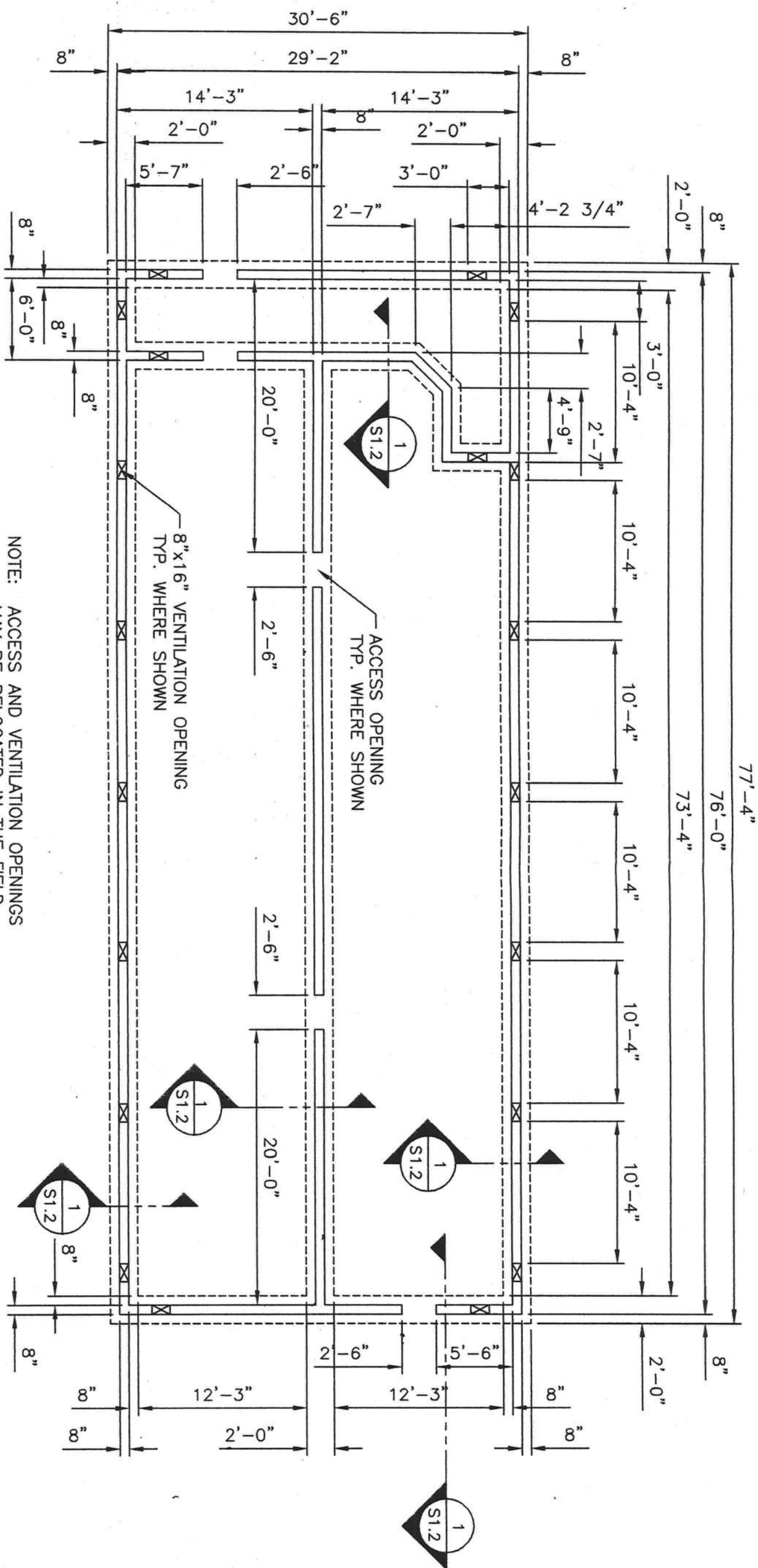
DATE \_\_\_\_\_

15 OCT 2010

SHEET NO.

51.2





FOUNDATION DETAILS - SHAVER RESIDENCE  
334 NW JESSUP COURT, LAKE CITY, FLORIDA  
HOLLAND CONCRETE CONSTRUCTION, INC.

ATTILA BODC  
PE 15834



**BODO AND  
ASSOCIATES, INC.**

**Structural Engineers**  
P.O. Box 698 Gainesville, Florida 32602-0698  
Tel: 352 578 8806 Fax: 352 578 6488  
State of Florida Certificate of Authorization No.: 2719

1 FOUNDATION PLAN  
1/8" = 1'-0"

NOTE: ACCESS AND VENTILATION OPENINGS MAY BE RELOCATED IN THE FIELD

-8"x16" VENTILATION OPENING  
TYP. WHERE SHOWN

ACCESS OPENING  
TYP. WHERE SHOWN

PROJECT NO.

7300011

DATE \_\_\_\_\_

15 OCT 2010

SHEET NO.

## S1.1



**COLUMBIA COUNTY BUILDING DEPARTMENT  
RESIDENTIAL CHECK LIST REQUIREMENTS**

6-25-09

**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.) <u>1994</u>			
	Total (Sq. Ft.) under roof <u>2204</u>			

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 specifically 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)	✓		

**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)**

<p align="center"><b>GENERAL REQUIREMENTS:</b> <b>APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL</b></p>	<p align="center">Items to Include- Each Box shall be Circled as Applicable</p>
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**FBCR 403: Foundation Plans**

		YES	NO	N/A
29	Location of all load-bearing walls footings indicated as standard, monolithic, dimensions, size and type of reinforcing.			
30	All posts and/or column footing including size and reinforcing			
31	Any special support required by soil analysis such as piling.			
32	Assumed load-bearing value of soil _____ Pound Per Square Foot			
33	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**

34	Show Vapor retarder (6mil. Polyethylene with joints lapped 6 inches and sealed)			
35	Show control joints, synthetic fiber reinforcement or welded fire fabric reinforcement and Supports			

**FBCR 320: PROTECTION AGAINST TERMITES**

36	Indicate on the foundation plan if soil treatment is used for subterranean termite prevention or Sub mit 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)**

37	Show all materials making up walls, wall height, and Block size, mortar type			
38	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**

39	Floor truss package shall including layout and details, signed and sealed by Florida Registered Professional Engineer			
40	Show conventional floor joist type, size, span, spacing and attachment to load bearing walls, stem walls and/or piers			
41	Girder type, size and spacing to load bearing walls, stem wall and/or piers			
42	Attachment of joist to girder			
43	Wind load requirements where applicable			
44	Show required under-floor crawl space			

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**

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			



## **FBCR Table 602.3(2) & FBCR 803 ROOF SHEATHING**

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

## **FBCR ROOF ASSEMBLIES FRC Chapter 9**

71	Include all materials which will make up the roof assemblies covering			
72	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		
		YES	NO	N/A
73	Show the insulation R value for the following areas of the structure			
74	Attic space			
75	Exterior wall cavity			
76	Crawl space			

## **HVAC information**

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

## **Plumbing Fixture layout shown**

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

## **Private Potable Water**

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

### 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	<p>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.</p> <p><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</p>			
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>  <b>APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL</b></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	<b>CERTIFIED FINISHED FLOOR ELEVATIONS</b> 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 <b>\$50.00</b>			
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 ( <b>\$25.00</b> ) must be made. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver ( <b>\$50.00</b> ). 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.

**If work has commenced.**

**Section 105.4.1.1:** If work has commenced and the permit is revoked, becomes null and void, or expires because of lack of progress or abandonment, a new permit covering the proposed construction shall be obtained before proceeding with the work.

**New Permit.**

**Section 105.4.1.2:** If a new permit is not obtained within 180 days from the date the initial permit became null and void, the building official is authorized to require that any work which has been commenced or completed be removed from the building site. Alternately, a new permit may be issued on application, providing the work in place and required to complete the structure meets all applicable regulations in effect at the time the initial permit became null and void and any regulations which may have become effective between the date of expiration and the date of issuance of the new permit.

**Work Shall Be:**

**Section 105.4.1.3:** Work shall be considered to be in active progress when the permit has received an approved inspection within 180 days. This provision shall not be applicable in case of civil commotion or strike or when the building work is halted due directly to judicial injunction, order or similar process.

**The Fee:**

**Section 105.4.1.4:** The fee for renewal reissuance and extension of a permit shall be set forth by the administrative authority.

**When the submitted application is approved for permitting the applicant will be notified by phone as to the date and time a building permit will be prepared and issued by the Columbia County Building & Zoning Department**