# Columbia County Building Permit Application

For Office Use Only Application # 0701-68 Date Received 1/18/07 By LH Permit # 25470

Application Approved by - Zoning Official BLK Date 23.01.07 Plans Examiner OKJTH Date 1-19-07

Flood Zone X Development Permit N/A Zoning RSF-2 Land Use Plan Map Category RES. Low DEN.

Comments

☑ NOC ☑ EH ☑ Deed or PA ☑ Site Plan ☐ State Road Info ☐ Parent Parcel # ☐ Development Permit

Fax 755-2423

Name Authorized Person Signing Permit Kevin Bederbaugh Phone 386-792-4061

Address Po Box 1416 Live Oak FL 32064

Owners Name Kenneth & Connie Callahan Phone 386-984-6998

911 Address 209 SW Callahan Ave. Lake City, FL 32024

Contractors Name Kevin Bederbaugh / Plumb Level const. Phone 792-4061

Address Po Box 1416 Live Oak, FL 32064

Fee Simple Owner Name & Address N/A

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address William Kaiker 33 Rockwood Ln. Monroe CT, 06468

Mortgage Lenders Name & Address GMAC Bank Const. Lending Division 100 Witmer Rd. PA 19044

Circle the correct power company – FL Power & Light – (Clay Elec.) – Suwannee Valley Elec. – Progressive Energy

Property ID Number 15-45-16-03024-006 Estimated Cost of Construction 145,000

Subdivision Name N/A Lot ___ Block ___ Unit ___ Phase ___

Driving Directions 90 west to CR 247 Go South, Go to second light (Cannon) turn Left on Callahan Avenue, second house on left.

Type of Construction Modular Number of Existing Dwellings on Property 0

Total Acreage 1.67 Lot Size ___ Do you need a - Culvert Permit or Culvert Waiver or (Have an Existing Drive)

Actual Distance of Structure from Property Lines - Front 110 Side 30 Side 45 Rear 270

Total Building Height 18' Number of Stories 1 Heated Floor Area 2248 TOTAL 2248 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.**

**OWNERS AFFIDAVIT: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning.**

**WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.**

Owner Builder or Authorized Person by Notarized Letter

Kevin Bederbaugh
Contractor Signature
Contractors License Number
Competency Card Number
NOTARY STAMP/SEAL

NICOLE COLEMAN
MY COMMISSION # DD 326664
EXPIRES: June 7, 2008
Bonded Thru Notary Public Underwriters

STATE OF FLORIDA
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me
this 19 day of January 2007.
Personally known X or Produced Identification

Nicole Coleman
Notary Signature

(Revised Sept. 2006)

# A & B Construction Inc.

P. O. Box 39
Ft. White, FL, 32038
386-497-2311

11/8/2006

To: Columbia County Health Department

Description of well to be installed for Customer: Ken Callahan
Located at Address: S.W. Callahan Ave. Lake City, FL. 32024

1 hp 20 gpm- 1 ¼" drop over 82 gallon equivalent captive tank with cycle stop and back flow preventer. With SRWM permit.

Rocky D. Ford
President
A&B Construction, Inc.

FAXED By: Kristina Date: 1-18-07

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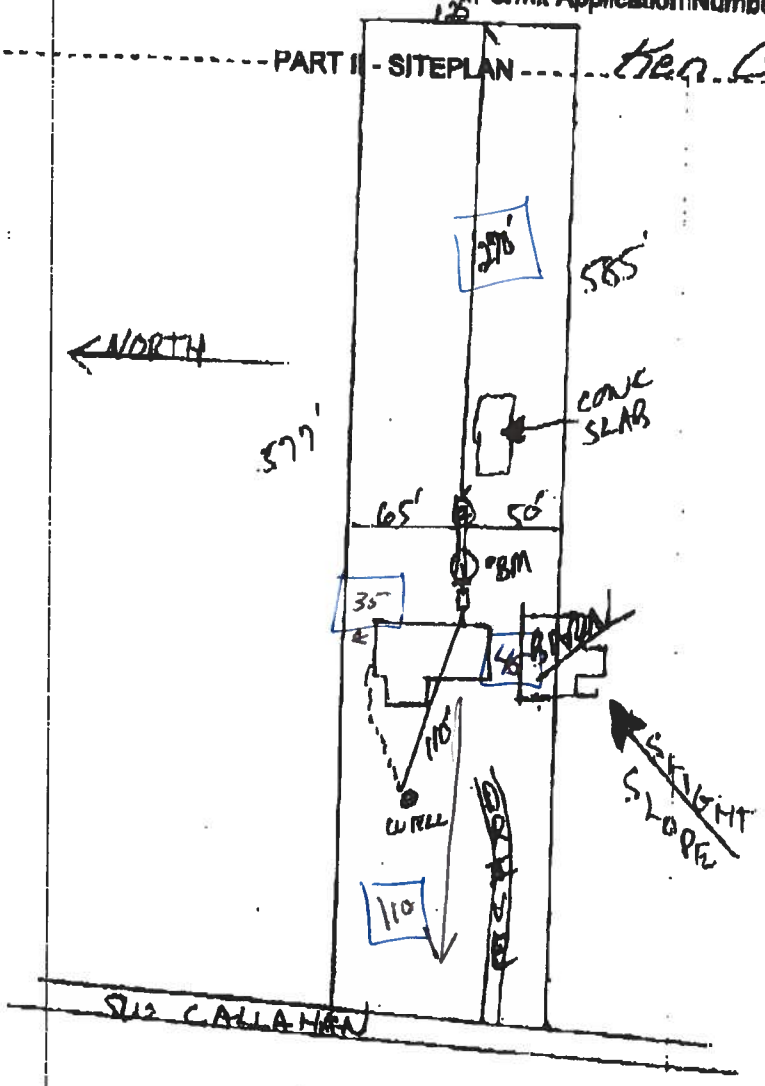
# STATE OF FLORIDA
# DEPARTMENT OF HEALTH
## APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

REVISED

Permit Application Number 06-0838-N

PART II - SITEPLAN — Ken Callahan

Scale: 1 inch = 50 feet.




Notes:

Site Plan submitted by: Rocke D 7—0

Plan Approved X Not Approved

By Sabbi Maddy EHI

MASTER CONTRACTOR

Date 12-20-06

Columbia CHD County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

DH 4016, 10/99 (Replaces HRS-H Form 4016 which may be used)
(Stock Number: 5744-002-4016-6)

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REVIEWED 12-20-06 Prog Code D 12-20-06

06-0838

Permit No._____ Tax Folio No._____

# NOTICE OF COMMENCEMENT

STATE OF Florida
COUNTY OF Columbia

The undersigned hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

1. Description of property: See Exhibit A attached hereto.
   a/k/a 209 SW Callahan Avenue, Lake City, FL 32024
2. General description of improvement:
   Mobile Home Set Up
3. Owner information:
   a. Name and address: Connie E. Callahan & Kenneth H. Callahan
   b. Interest in property: Fee Simple
   c. Name and address of fee simple titleholder (if other than Owner):
4. Contractor: Connie E. Callahan & Kenneth H. Callahan
   C & G Mobile Homes, Hwy 90 W, Lake City, Florida
5. Surety a. Name and address:
   b. Amount of bond $_____
6. Lender:

**ATTN: Jane Vernon**
**GMAC Bank**
**Construction Lending Division**
**100 Witmer Road**
**Horsham, PA 19044**

STATE OF FLORIDA, COUNTY OF COLUMBIA
I HEREBY CERTIFY, that the above and foregoing is a true copy of the original filed in this office.
P. DeWITT CASON, CLERK OF COURTS
By Sharon Tharp Deputy Clerk
Date 12-15-2006

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

8. In addition to himself, Owner designates _____ of _____ to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes.

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

Connie E. Callahan
Signature of Owner Connie E. Callahan

Signature of Owner Kenneth H. Callahan

Sworn to and subscribed before me this 14th day of December, 2006.

FILE COPY

Notary Public, State of Florida

My Commission Expires:

Inst:2006029673 Date:12/18/2006 Time:15:17
DC,P.DeWitt Cason,Columbia County B:1105 P:531

File No. 06-0383/Callahan

# EXHIBIT "A"

**Commence at the Northeast corner of Section 15, Township 4 South, Range 16 East, thence run S. 87 degrees 56'20" W. along the North line of said Section 15, a distance of 718.77 feet, to a concrete monument LS 4303, marking the Northeast corner of lands described in Official Records Book (ORB) 945, Page 1800, of the Official Records of Columbia County, Florida, and the Point of Beginning; thence S. 02 degrees 01 minutes 56" E., along the East line of said Official Records Book 945, Page 1800, a distance of 125.08 feet, to a 5/8 inch iron rod LS 4708; thence S. 87 degrees 56'34" W., parallel to said North line of Section 15, a distance of 585.42 feet to a nail and disk LS 4708, set on the East Right of Way line of Callahan Road, a 60 foot Public Right of Way; thence N. 01 degrees 28'46" E., along said East Right of Way line, a distance of 125.32 feet, to a 5/8 inch iron rod LS 4708, set on the aforementioned North line of Section 15, thence N. 87 degrees 56'34"E., along the North line of said Section 15, also being the North line of said Official Records Book 945, Page 1800, a distance of 577.74 feet to the Point of Beginning.**

Inst:2006029673 Date:12/18/2006 Time:15:17
_____DC,P.DeWitt Cason,Columbia County B:1105 P:532

Recording prepared by:

Kenneth Howard Callahan
5110 Greentree Drive
Nashville, TN

and when recorded, please return this deed and tax statements to:

Ken Callahan
PO Box 866
Lake City, FL 32056

Above reserved for official use only

Grantee's SS No: 264494563

Property Appraiser's Parcel ID # 03024-000

# GENERAL WARRANTY DEED

**KNOW ALL MEN BY THESE PRESENTS THAT:**

FOR A VALUABLE CONSIDERATION, in the amount of TEN AND NO/100 DOLLARS ($10.00) in hand and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned, Juanita H. Callahan and Howard J. Callahan ("Grantor"), has GRANTED, SOLD and CONVEYED and by these presents does GRANT, BARGAIN, SELL and CONVEY to Kenneth H. Callahan and Connie E. Callahan ("Grantee"), all right, title, interest and claim to the following real property in the City of Lake City, County of Columbia, State of Florida with the following legal description:

COMMENCE AT THE NORTHEAST CORNER OF SECTION 15, TOWNSHIP 4 SOUTH, RANGE 16 EAST, THENCE RUN S. 87 DEGREES 56' 20" W. ALONG THE NORTH LINE OF SAID SECTION 15, A DISTANCE OF 718.77 FEET, TO A CONCRETE MONUMENT LS 4303, MARKING THE NORTHEAST CORNER OF LANDS DESCRIBED IN OFFICIAL RECORDS BOOK (ORB) 945, PAGE 1800, OF THE OFFICIAL RECORDS OF COLUMBIA COUNTY, FLORIDA, AND THE POINT OF BEGINNING; THENCE S.02 DEGREES 01DEGREES 56" E., ALONG THE EAST LINE OF SAID ORB 945, PAGE 1800, A DISTANCE OF 125.08 FEET, TO A 5/8 INCH IRON ROD LS 4708; THENCE S.87 DEGREES 56'34" W., PARALLEL TO SAID NORTH LINE OF SECTION 15, A DISTANCE OF 585.42 FEET TO A NAIL AND DISK LS 4708, SET ON THE EAST RIGHT-OF-WAY LINE OF CALLAHAN ROAD, A 60 FOOT PUBLIC RIGHT-OF-WAY; THENCE N.01 DEGREES 28'46" E., ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 125.32 FEET, TO A 5/8 INCH IRON ROD LS 4708, SET ON THE AFOREMENTIONED NORTH LINE OF SECTION 15, THENCE N. 87 DEGREES 56' 34"E., ALONG THE NORTH LINE OF SAID SECTION 15, ALSO BEING THE NORTH LINE OF SAID ORB 945, PAGE 1800, A DISTANCE OF 577.74 FEET TO THE POINT OF BEGINNING. CONTAINS 1.67 ACRES, MORE OR LESS.

TO HAVE AND TO HOLD all of Grantor's right, title and interest in and to the above described property unto the said Grantee, Grantee's heirs, administrators, executors, successors and/or assigns forever IN FEE SIMPLE; so that neither Grantor nor Grantor's heirs, administrators, executors, successors and/or assigns shall have, claim or demand any right or title to the aforesaid property, premises or appurtenances or any part thereof.

Grantor further WARRANTS and agrees to FOREVER DEFEND all and singular the said property unto the said Grantee, Grantee's heirs, executors, administrators, successors and/or assigns, against every person whomsoever claiming or to claim the same or any part thereof.

EXECUTED this day of July 26, 2006

Juanita H Callahan Howard Callahan

*(Signature of Grantor)*

Grantee's Address:

211 Callahan Ave SW
Lake City, FL 32024

Grantors Address:

5110 Greentree Drive
Nashville, TN 37211

Signed in our presence:

Marjorie M. Ogden
(Witness Signature)

Print Name: Marjorie M. Ogden

Linda Nettles
(Witness Signature)

Print Name: Linda Nettles

State of FLORIDA )
)
County of Columbia ) ss

The foregoing instrument was acknowledged before me on July 28, 2006 by Juanita H. Callahan & Howard T. Callahan who is/are personally known by me or who has/have produced: NA as identification and who did not take an oath.

Signature of Notary Public

Brenda Outlaw
Printed Name of Notary

My commission expires:

BRENDA OUTLAW
MY COMMISSION # DD 469078
EXPIRES: October 16, 2009
Bonded Thru Notary Public Underwriters

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

| | | | |
|---|---|---|---|
| Project Name: | TH-5FL | Builder: | |
| Address: | TH-5FL NORTH | Permitting Office: | |
| City, State: | , | Permit Number: | |
| Owner: | | Jurisdiction Number: | |
| Climate Zone: | North | | |

APPROVED
HILBORN, WERNER, CARTER & ASSOC
JAN 12 2007

| | | | |
|---|---|---|---|
| 1. | New construction or existing | New | |
| 2. | Single family or multi-family | Single family | |
| 3. | Number of units, if multi-family | 1 | |
| 4. | Number of Bedrooms | 3 | |
| 5. | Is this a worst case? | Yes | |
| 6. | Conditioned floor area (ft²) | 2248 ft² | |
| 7. | Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default) | | |
| a. | U-factor: (or Single or Double DEFAULT) | 7a. Description (Dble, U=0.5) Area 90.0 ft² | |
| b. | SHGC: (or Clear or Tint DEFAULT) | 7b. (Clear) 247.3 ft² | |
| 8. | Floor types | | |
| a. | Raised Wood, Stem Wall | R=10.0, 2248.0ft² | |
| b. | N/A | | |
| c. | N/A | | |
| 9. | Wall types | | |
| a. | Frame, Wood, Exterior | R=19.0, 1555.0 ft² | |
| b. | N/A | | |
| c. | N/A | | |
| d. | N/A | | |
| e. | N/A | | |
| 10. | Ceiling types | | |
| a. | Under Attic | R=30.0, 2248.0 ft² | |
| b. | N/A | | |
| c. | N/A | | |
| 11. | Ducts | | |
| a. | Sup: Unc. Ret: Unc. AH: Attic | Sup. R=6.0, 20.0 ft | |
| b. | N/A | | |

SEE MANUFACTURER'S CONTRACT WITH FLORIDA DCA

| | | | |
|---|---|---|---|
| 12. | Cooling systems | | |
| a. | Central Unit | Cap: 42.0 kBtu/hr<br>SEER: 14.00 | |
| b. | N/A | | |
| c. | N/A | | |
| 13. | Heating systems | | |
| a. | Electric Heat Pump | Cap: 41.0 kBtu/hr<br>HSPF: 7.70 | |
| b. | N/A | | |
| c. | N/A | | |
| 14. | Hot water systems | | |
| a. | Electric Resistance | Cap: 1.0 gallons<br>EF: 0.97 | |
| b. | N/A | | |
| c. | Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump) | | |
| 15. | HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating) | PT, | |

Glass/Floor Area: 0.11

Total as-built points: 25557
Total base points: 28092

PASS

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

**PREPARED BY:** _____

**DATE:** 1/7/07

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.

Date 1-12-07 Plan No. _____

Approved By SCOTT S. FRANCIS

**BUILDING OFFICIAL:** _____

**DATE:** 1-12-07

Modular Building Plans Examiner
Florida License No. [illegible]

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4



FILE COPY

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL NORTH, , ,** PERMIT #:

| BASE | | | | AS-BUILT | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GLASS TYPES** .18 X Conditioned Floor Area | X BSPM | = Points | | Type/SC | Overhang Ornt | Len | Hgt | Area X | SPM X | SOF | = Points |
| .18 | 2248.0 | 18.59 | 7522.0 | 1.Double,U=0.48,Clear | E | 0.0 | 0.0 | 90.0 | 43.92 | 1.00 | 3952.0 |
| | | | | 2.Double,U=0.48,Clear | W | 0.0 | 0.0 | 45.0 | 40.43 | 1.00 | 1819.0 |
| | | | | 3.Double, Clear | W | 0.0 | 0.0 | 40.0 | 38.52 | 1.00 | 1540.0 |
| | | | | 4.Double, Clear | W | 0.0 | 0.0 | 12.3 | 38.52 | 1.00 | 471.0 |
| | | | | 5.Double,U=0.48,Clear | S | 0.0 | 0.0 | 30.0 | 37.73 | 1.00 | 1131.0 |
| | | | | 6.Double,U=0.48,Clear | N | 0.0 | 0.0 | 30.0 | 21.25 | 1.00 | 637.0 |
| | | | | **As-Built Total:** | | | | **247.3** | | | **9550.0** |
| **WALL TYPES** | Area X | BSPM = | Points | Type | | | R-Value | Area X | SPM = | | Points |
| Adjacent | 0.0 | 0.00 | 0.0 | 1. Frame, Wood, Exterior | | | 19.0 | 1555.0 | 0.90 | | 1399.5 |
| Exterior | 1555.0 | 1.70 | 2643.5 | | | | | | | | |
| **Base Total:** | **1555.0** | | **2643.5** | **As-Built Total:** | | | | **1555.0** | | | **1399.5** |
| **DOOR TYPES** | Area X | BSPM = | Points | Type | | | | Area X | SPM = | | Points |
| Adjacent | 0.0 | 0.00 | 0.0 | 1.Exterior Insulated | | | | 40.0 | 4.10 | | 164.0 |
| Exterior | 40.0 | 6.10 | 244.0 | | | | | | | | |
| **Base Total:** | **40.0** | | **244.0** | **As-Built Total:** | | | | **40.0** | | | **164.0** |
| **CEILING TYPES** | Area X | BSPM = | Points | Type | | | R-Value | Area X | SPM X SCM = | | Points |
| Under Attic | 2248.0 | 1.73 | 3889.0 | 1. Under Attic | | | 30.0 | 2248.0 | 1.73 X 1.00 | | 3889.0 |
| **Base Total:** | **2248.0** | | **3889.0** | **As-Built Total:** | | | | **2248.0** | | | **3889.0** |
| **FLOOR TYPES** | Area X | BSPM = | Points | Type | | | R-Value | Area X | SPM = | | Points |
| Slab | 0.0(p) | 0.0 | 0.0 | 1. Raised Wood, Stem Wall | | | 10.0 | 2248.0 | -2.00 | | -4496.0 |
| Raised | 2248.0 | -3.99 | -8969.5 | | | | | | | | |
| **Base Total:** | | | **-8969.5** | **As-Built Total:** | | | | **2248.0** | | | **-4496.0** |
| **INFILTRATION** | Area X | BSPM = | Points | | | | | Area X | SPM = | | Points |
| | 2248.0 | 10.21 | 22952.1 | | | | | 2248.0 | 10.21 | | 22952.1 |

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL NORTH, , ,** PERMIT #:

| BASE | | | AS-BUILT | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Summer Base Points: 28281.1** | | | **Summer As-Built Points:** | | | | | **33458.6** |
| Total Summer Points | X System Multiplier | = Cooling Points | Total Component (System - Points) | X Cap Ratio | X Duct Multiplier (DM x DSM x AHU) | X System Multiplier | X Credit Multiplier | = Cooling Points |
| | | | (sys 1: Central Unit 42000btuh ,SEER/EFF(14.0) Ducts:Unc(S),Unc(R),Att(AH),R6.0(INS) | | | | | |
| | | | 33459 | 1.00 | (1.09 x 1.147 x 1.11) | 0.244 | 0.950 | 10753.6 |
| **28281.1** | **0.3250** | **9191.4** | **33458.6** | **1.00** | **1.388** | **0.244** | **0.950** | **10753.6** |

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL NORTH, , ,** PERMIT #:

| BASE | | | | AS-BUILT | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GLASS TYPES** .18 X Conditioned Floor Area | X BWPM | = Points | | Type/SC | Overhang Ornt | Len | Hgt | Area X | WPM X | WOF | = Points | |
| .18 | 2248.0 | 20.17 | 8162.0 | 1.Double,U=0.48,Clear | E | 0.0 | 0.0 | 90.0 | 7.72 | 1.00 | 694.0 | |
| | | | | 2.Double,U=0.48,Clear | W | 0.0 | 0.0 | 45.0 | 9.51 | 1.00 | 428.0 | |
| | | | | 3.Double, Clear | W | 0.0 | 0.0 | 40.0 | 20.73 | 1.00 | 829.0 | |
| | | | | 4.Double, Clear | W | 0.0 | 0.0 | 12.3 | 20.73 | 1.00 | 253.0 | |
| | | | | 5.Double,U=0.48,Clear | S | 0.0 | 0.0 | 30.0 | 2.29 | 1.00 | 68.0 | |
| | | | | 6.Double,U=0.48,Clear | N | 0.0 | 0.0 | 30.0 | 13.32 | 1.00 | 399.0 | |
| | | | | **As-Built Total:** | | | | **247.3** | | | **2671.0** | |
| **WALL TYPES** | Area X | BWPM = | Points | Type | | | R-Value | Area X | WPM = | | Points | |
| Adjacent | 0.0 | 0.00 | 0.0 | 1. Frame, Wood, Exterior | | | 19.0 | 1555.0 | 2.20 | | 3421.0 | |
| Exterior | 1555.0 | 3.70 | 5753.5 | | | | | | | | | |
| **Base Total:** | **1555.0** | | **5753.5** | **As-Built Total:** | | | | **1555.0** | | | **3421.0** | |
| **DOOR TYPES** | Area X | BWPM = | Points | Type | | | | Area X | WPM = | | Points | |
| Adjacent | 0.0 | 0.00 | 0.0 | 1.Exterior Insulated | | | | 40.0 | 8.40 | | 336.0 | |
| Exterior | 40.0 | 12.30 | 492.0 | | | | | | | | | |
| **Base Total:** | **40.0** | | **492.0** | **As-Built Total:** | | | | **40.0** | | | **336.0** | |
| **CEILING TYPES** | Area X | BWPM = | Points | Type | | | R-Value | Area X | WPM X WCM = | | Points | |
| Under Attic | 2248.0 | 2.05 | 4608.4 | 1. Under Attic | | | 30.0 | 2248.0 | 2.05 X 1.00 | | 4608.4 | |
| **Base Total:** | **2248.0** | | **4608.4** | **As-Built Total:** | | | | **2248.0** | | | **4608.4** | |
| **FLOOR TYPES** | Area X | BWPM = | Points | Type | | | R-Value | Area X | WPM = | | Points | |
| Slab | 0.0(p) | 0.0 | 0.0 | 1. Raised Wood, Stem Wall | | | 10.0 | 2248.0 | 1.30 | | 2922.4 | |
| Raised | 2248.0 | 0.96 | 2158.1 | | | | | | | | | |
| **Base Total:** | | | **2158.1** | **As-Built Total:** | | | | **2248.0** | | | **2922.4** | |
| **INFILTRATION** | Area X | BWPM = | Points | | | | | Area X | WPM = | | Points | |
| | 2248.0 | -0.59 | -1326.3 | | | | | 2248.0 | -0.59 | | -1326.3 | |

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

| ADDRESS: **TH-5FL NORTH, , ,** | PERMIT #: |
|---|---|

| BASE | | | AS-BUILT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Winter Base Points:** | | **19847.7** | **Winter As-Built Points:** | | | | | | **12632.5** |
| Total Winter Points | X System Multiplier | = Heating Points | Total Component (System - Points) | X Cap Ratio | X Duct Multiplier (DM x DSM x AHU) | X System Multiplier | X Credit Multiplier | = Heating Points | |
| | | | (sys 1: Electric Heat Pump 41000 btuh ,EFF(7.7) Ducts:Unc(S),Unc(R),Att(AH),R6.0 | | | | | | |
| | | | 12632.5 | 1.000 | (1.069 x 1.169 x 1.10) | 0.443 | 0.950 | 7305.7 | |
| **19847.7** | **0.5540** | **10995.6** | **12632.5** | **1.00** | **1.375** | **0.443** | **0.950** | **7305.7** | |

# WATER HEATING & CODE COMPLIANCE STATUS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL NORTH, , ,** PERMIT #:

| BASE | | | | AS-BUILT | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **WATER HEATING** | | | | | | | | | | | |
| Number of Bedrooms | X Multiplier | = Total | | Tank Volume | EF | Number of Bedrooms | X Tank Ratio | X Multiplier | X Credit Multiplier | = Total | |
| 3 | 2635.00 | 7905.0 | | 1.0 | 0.97 | 3 | 1.00 | 2499.18 | 1.00 | 7497.5 | |
| | | | | **As-Built Total:** | | | | | | | **7497.5** |

## CODE COMPLIANCE STATUS

| BASE | | | | AS-BUILT | | | |
|---|---|---|---|---|---|---|---|
| Cooling Points + | Heating Points + | Hot Water Points = | Total Points | Cooling Points + | Heating Points + | Hot Water Points = | Total Points |
| **9191** | **10996** | **7905** | **28092** | **10754** | **7306** | **7498** | **25557** |

# PASS

# Code Compliance Checklist

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL NORTH, , ,** PERMIT #:

### 6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

| COMPONENTS | SECTION | REQUIREMENTS FOR EACH PRACTICE | CHECK |
|---|---|---|---|
| Exterior Windows & Doors | 606.1.ABC.1.1 | Maximum:.3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area. | |
| Exterior & Adjacent Walls | 606.1.ABC.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 | 606.1.ABC.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 | 606.1.ABC.1.2.3 | Between walls & ceilings; penetrations of ceiling plane of 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 | 606.1.ABC.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 rated with < 2.0 cfm from conditioned space, tested. | |
| Multi-story Houses | 606.1.ABC.1.2.5 | Air barrier on perimeter of floor cavity between floors. | |
| Additional Infiltration reqts | 606.1.ABC.1.3 | Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air. | |

### 6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

| COMPONENTS | SECTION | REQUIREMENTS | CHECK |
|---|---|---|---|
| Water Heaters | 612.1 | Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked cir breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required. | |
| Swimming Pools & Spas | 612.1 | 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%. | |
| Shower heads | 612.1 | Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG. | |
| Air Distribution Systems | 610.1 | All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation. | |
| HVAC Controls | 607.1 | Separate readily accessible manual or automatic thermostat for each system. | |
| Insulation | 604.1, 602.1 | Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11. | |

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

**ESTIMATED ENERGY PERFORMANCE SCORE* = 86.5**

**The higher the score, the more efficient the home.**

, TH-5FL NORTH, , ,

| | | | | | |
|---|---|---|---|---|---|
| 1. | New construction or existing | New | | 12. Cooling systems | |
| 2. | Single family or multi-family | Single family | | a. Central Unit | Cap: 42.0 kBtu/hr |
| 3. | Number of units, if multi-family | 1 | | | SEER: 14.00 |
| 4. | Number of Bedrooms | 3 | | b. N/A | |
| 5. | Is this a worst case? | Yes | | | |
| 6. | Conditioned floor area (ft²) | 2248 ft² | | c. N/A | |
| 7. | Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default) | | | | |
| | a. U-factor: | Description Area | | 13. Heating systems | |
| | (or Single or Double DEFAULT) | 7a. (Dble, U=0.5) 90.0 ft² | | a. Electric Heat Pump | Cap: 41.0 kBtu/hr |
| | b. SHGC: | | | | HSPF: 7.70 |
| | (or Clear or Tint DEFAULT) | 7b. (Clear) 247.3 ft² | | b. N/A | |
| 8. | Floor types | | | | |
| | a. Raised Wood, Stem Wall | R=10.0, 2248.0ft² | | c. N/A | |
| | b. N/A | | | | |
| | c. N/A | | | 14. Hot water systems | |
| 9. | Wall types | | | a. Electric Resistance | Cap: 1.0 gallons |
| | a. Frame, Wood, Exterior | R=19.0, 1555.0 ft² | | | EF: 0.97 |
| | b. N/A | | | b. N/A | |
| | c. N/A | | | | |
| | d. N/A | | | c. Conservation credits | |
| | e. N/A | | | (HR-Heat recovery, Solar | |
| 10. | Ceiling types | | | DHP-Dedicated heat pump) | |
| | a. Under Attic | R=30.0, 2248.0 ft² | | 15. HVAC credits | PT, |
| | b. N/A | | | (CF-Ceiling fan, CV-Cross ventilation, | |
| | c. N/A | | | HF-Whole house fan, | |
| 11. | Ducts | | | PT-Programmable Thermostat, | |
| | a. Sup: Unc. Ret: Unc. AH: Attic | Sup. R=6.0, 20.0 ft | | MZ-C-Multizone cooling, | |
| | b. N/A | | | MZ-H-Multizone heating) | |

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: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

FORM 600A-2004R EnergyGauge® 4.5

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

## Residential Whole Building Performance Method A

| | | | |
|---|---|---|---|
| Project Name: | TH-5FL | Builder: | |
| Address: | TH-5FL CENTRAL | Permitting Office: | |
| City, State: | , | Permit Number: | |
| Owner: | | Jurisdiction Number: | |
| Climate Zone: | Central | | |

APPROVED
JAN 12 2007
AILBORN, WERNER, CARTER & ASSOC.

| | | | |
|---|---|---|---|
| 1. New construction or existing | New | | |
| 2. Single family or multi-family | Single family | | |
| 3. Number of units, if multi-family | 1 | | |
| 4. Number of Bedrooms | 3 | | |
| 5. Is this a worst case? | Yes | | |
| 6. Conditioned floor area (ft²) | 2248 ft² | | |
| 7. Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default) | | | |
| a. U-factor: | Description | Area | |
| (or Single or Double DEFAULT) | 7a. (Dble, U=0.5) | 90.0 ft² | |
| b. SHGC: | | | |
| (or Clear or Tint DEFAULT) | 7b. (Clear) | 247.3 ft² | |
| 8. Floor types | | | |
| a. Raised Wood, Stem Wall | R=10.0, 2248.0ft² | | |
| b. N/A | | | |
| c. N/A | | | |
| 9. Wall types | | | |
| a. Frame, Wood, Exterior | R=19.0, 1555.0 ft² | | |
| b. N/A | | | |
| c. N/A | | | |
| d. N/A | | | |
| e. N/A | | | |
| 10. Ceiling types | | | |
| a. Under Attic | R=30.0, 2248.0 ft² | | |
| b. N/A | | | |
| c. N/A | | | |
| 11. Ducts | | | |
| a. Sup: Unc. Ret: Unc. AH: Attic | Sup. R=6.0, 20.0 ft | | |
| b. N/A | | | |

SEE MANUFACTURER'S CONTRACT WITH FLORIDA DCA.

| | | | |
|---|---|---|---|
| 12. Cooling systems | | | |
| a. Central Unit | | Cap: 42.0 kBtu/hr | |
| | | SEER: 14.00 | |
| b. N/A | | | |
| c. N/A | | | |
| 13. Heating systems | | | |
| a. Electric Heat Pump | | Cap: 41.0 kBtu/hr | |
| | | HSPF: 7.70 | |
| b. N/A | | | |
| c. N/A | | | |
| 14. Hot water systems | | | |
| a. Electric Resistance | | Cap: 1.0 gallons | |
| | | EF: 0.97 | |
| b. N/A | | | |
| c. Conservation credits | | | |
| (HR-Heat recovery, Solar DHP-Dedicated heat pump) | | | |
| 15. HVAC credits | | PT, | |
| (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating) | | | |

Glass/Floor Area: 0.11

Total as-built points: 24626

Total base points: 25187

**PASS**

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

**PREPARED BY:** _____

**DATE:** 1/7/07

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. Date: 1-12-07 Plan No. _____

Approved By SCOTT S. FRANCIS

**BUILDING OFFICIAL:** 2198-0014F

**DATE:** _____

Building Plans Examiner
Florida License No. SMP-42

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL CENTRAL, , ,** PERMIT #:

| BASE | | | | AS-BUILT | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GLASS TYPES** .18 X Conditioned Floor Area | X BSPM | = Points | | Type/SC | Overhang Ornt | Len | Hgt | Area X | SPM X | SOF | = Points |
| .18 | 2248.0 | 24.35 | 9853.0 | 1.Double,U=0.48,Clear | W | 0.0 | 0.0 | 90.0 | 51.98 | 1.00 | 4678.0 |
| | | | | 2.Double,U=0.48,Clear | E | 0.0 | 0.0 | 45.0 | 57.38 | 1.00 | 2581.0 |
| | | | | 3.Double, Clear | E | 0.0 | 0.0 | 40.0 | 55.69 | 1.00 | 2227.0 |
| | | | | 4.Double, Clear | E | 0.0 | 0.0 | 12.3 | 55.69 | 1.00 | 682.0 |
| | | | | 5.Double,U=0.48,Clear | N | 0.0 | 0.0 | 30.0 | 28.23 | 1.00 | 846.0 |
| | | | | 6.Double,U=0.48,Clear | S | 0.0 | 0.0 | 30.0 | 43.70 | 1.00 | 1310.0 |
| | | | | **As-Built Total:** | | | | **247.3** | | | **12324.0** |
| **WALL TYPES** | Area X | BSPM = | Points | Type | | | R-Value | Area X | SPM = | | Points |
| Adjacent | 0.0 | 0.00 | 0.0 | 1. Frame, Wood, Exterior | | | 19.0 | 1555.0 | 1.00 | | 1555.0 |
| Exterior | 1555.0 | 1.90 | 2954.5 | | | | | | | | |
| **Base Total:** | **1555.0** | | **2954.5** | **As-Built Total:** | | | | **1555.0** | | | **1555.0** |
| **DOOR TYPES** | Area X | BSPM = | Points | Type | | | | Area X | SPM = | | Points |
| Adjacent | 0.0 | 0.00 | 0.0 | 1.Exterior Insulated | | | | 40.0 | 4.80 | | 192.0 |
| Exterior | 40.0 | 4.80 | 192.0 | | | | | | | | |
| **Base Total:** | **40.0** | | **192.0** | **As-Built Total:** | | | | **40.0** | | | **192.0** |
| **CEILING TYPES** | Area X | BSPM = | Points | Type | | | R-Value | Area X | SPM X SCM = | | Points |
| Under Attic | 2248.0 | 2.13 | 4788.2 | 1. Under Attic | | | 30.0 | 2248.0 | 2.13 X 1.00 | | 4788.2 |
| **Base Total:** | **2248.0** | | **4788.2** | **As-Built Total:** | | | | **2248.0** | | | **4788.2** |
| **FLOOR TYPES** | Area X | BSPM = | Points | Type | | | R-Value | Area X | SPM = | | Points |
| Slab | 0.0(p) | 0.0 | 0.0 | 1. Raised Wood, Stem Wall | | | 10.0 | 2248.0 | -2.35 | | -5282.8 |
| Raised | 2248.0 | -3.43 | -7710.6 | | | | | | | | |
| **Base Total:** | | | **-7710.6** | **As-Built Total:** | | | | **2248.0** | | | **-5282.8** |
| **INFILTRATION** | Area X | BSPM = | Points | | | | | Area X | SPM = | | Points |
| | 2248.0 | 14.31 | 32168.9 | | | | | 2248.0 | 14.31 | | 32168.9 |

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL CENTRAL, , ,** PERMIT #:

| BASE | | | AS-BUILT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Summer Base Points: 42246.0** | | | **Summer As-Built Points:** | | | | | | **45745.3** |
| Total Summer Points | X System Multiplier | = Cooling Points | Total Component (System - Points) | X Cap Ratio | X Duct Multiplier (DM x DSM x AHU) | X System Multiplier | X Credit Multiplier | = Cooling Points | |
| | | | (sys 1: Central Unit 42000btuh ,SEER/EFF(14.0) Ducts:Unc(S),Unc(R),Att(AH),R6.0(INS) | | | | | | |
| | | | 45745 | 1.00 | (1.09 x 1.150 x 1.10) | 0.244 | 0.950 | 14555.2 | |
| **42246.0** | **0.3250** | **13729.9** | **45745.3** | **1.00** | **1.375** | **0.244** | **0.950** | **14555.2** | |

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL CENTRAL, , ,** PERMIT #:

| BASE | | | | AS-BUILT | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GLASS TYPES** .18 X Conditioned Floor Area | X BWPM | = Points | | Type/SC | Overhang Ornt | Len | Hgt | Area X | WPM X | WOF | = Points |
| .18 | 2248.0 | 9.11 | 3686.0 | 1.Double,U=0.48,Clear | W | 0.0 | 0.0 | 90.0 | 4.66 | 1.00 | 419.0 |
| | | | | 2.Double,U=0.48,Clear | E | 0.0 | 0.0 | 45.0 | 3.98 | 1.00 | 178.0 |
| | | | | 3.Double, Clear | E | 0.0 | 0.0 | 40.0 | 8.82 | 1.00 | 352.0 |
| | | | | 4.Double, Clear | E | 0.0 | 0.0 | 12.3 | 8.82 | 1.00 | 108.0 |
| | | | | 5.Double,U=0.48,Clear | N | 0.0 | 0.0 | 30.0 | 6.03 | 1.00 | 180.0 |
| | | | | 6.Double,U=0.48,Clear | S | 0.0 | 0.0 | 30.0 | 1.96 | 1.00 | 58.0 |
| | | | | **As-Built Total:** | | | | **247.3** | | | **1295.0** |

| **WALL TYPES** | Area X | BWPM | = Points | Type | R-Value | Area X | WPM | = Points |
|---|---|---|---|---|---|---|---|---|
| Adjacent | 0.0 | 0.00 | 0.0 | 1. Frame, Wood, Exterior | 19.0 | 1555.0 | 1.10 | 1710.5 |
| Exterior | 1555.0 | 2.00 | 3110.0 | | | | | |
| **Base Total:** | **1555.0** | | **3110.0** | **As-Built Total:** | | **1555.0** | | **1710.5** |

| **DOOR TYPES** | Area X | BWPM | = Points | Type | Area X | WPM | = Points |
|---|---|---|---|---|---|---|---|
| Adjacent | 0.0 | 0.00 | 0.0 | 1.Exterior Insulated | 40.0 | 5.10 | 204.0 |
| Exterior | 40.0 | 5.10 | 204.0 | | | | |
| **Base Total:** | **40.0** | | **204.0** | **As-Built Total:** | **40.0** | | **204.0** |

| **CEILING TYPES** | Area X | BWPM | = Points | Type | R-Value | Area X | WPM X WCM | = Points |
|---|---|---|---|---|---|---|---|---|
| Under Attic | 2248.0 | 0.64 | 1438.7 | 1. Under Attic | 30.0 | 2248.0 | 0.64 X 1.00 | 1438.7 |
| **Base Total:** | **2248.0** | | **1438.7** | **As-Built Total:** | | **2248.0** | | **1438.7** |

| **FLOOR TYPES** | Area X | BWPM | = Points | Type | R-Value | Area X | WPM | = Points |
|---|---|---|---|---|---|---|---|---|
| Slab | 0.0(p) | 0.0 | 0.0 | 1. Raised Wood, Stem Wall | 10.0 | 2248.0 | 0.55 | 1236.4 |
| Raised | 2248.0 | -0.20 | -449.6 | | | | | |
| **Base Total:** | | | **-449.6** | **As-Built Total:** | | **2248.0** | | **1236.4** |

| **INFILTRATION** | Area X | BWPM | = Points | Area X | WPM | = Points |
|---|---|---|---|---|---|---|
| | 2248.0 | -0.28 | -629.4 | 2248.0 | -0.28 | -629.4 |

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL CENTRAL, , ,** PERMIT #:

| BASE | | | AS-BUILT | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Winter Base Points:** | | **7359.7** | **Winter As-Built Points:** | | | | | **5255.2** |
| Total Winter Points | X System Multiplier | = Heating Points | Total Component (System - Points) | X Cap Ratio | X Duct Multiplier (DM x DSM x AHU) | X System Multiplier | X Credit Multiplier | = Heating Points |
| | | | (sys 1: Electric Heat Pump 41000 btuh ,EFF(7.7) Ducts:Unc(S),Unc(R),Att(AH),R6.0 | | | | | |
| | | | 5255.2 | 1.000 | (1.078 x 1.160 x 1.11) | 0.443 | 0.950 | 3071.5 |
| **7359.7** | **0.5540** | **4077.3** | **5255.2** | **1.00** | **1.388** | **0.443** | **0.950** | **3071.5** |

# WATER HEATING & CODE COMPLIANCE STATUS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL CENTRAL, , ,** PERMIT #:

| BASE | | | | AS-BUILT | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **WATER HEATING** | | | | | | | | | | | |
| Number of Bedrooms | X | Multiplier | = Total | Tank Volume | EF | Number of Bedrooms | X Tank Ratio | X Multiplier | X Credit Multiplier | = Total | |
| 3 | | 2460.00 | 7380.0 | 1.0 | 0.97 | 3 | 1.00 | 2333.20 | 1.00 | 6999.6 | |
| | | | | **As-Built Total:** | | | | | | **6999.6** | |

## CODE COMPLIANCE STATUS

| BASE | | | | AS-BUILT | | | |
|---|---|---|---|---|---|---|---|
| Cooling Points | Heating Points | Hot Water Points | Total Points | Cooling Points | Heating Points | Hot Water Points | Total Points |
| **13730** | **4077** | **7380** | **25187** | **14555** | **3072** | **7000** | **24626** |

# PASS

# Code Compliance Checklist

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL CENTRAL, , ,** PERMIT #:

### 6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

| COMPONENTS | SECTION | REQUIREMENTS FOR EACH PRACTICE | CHECK |
|---|---|---|---|
| Exterior Windows & Doors | 606.1.ABC.1.1 | Maximum:.3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area. | |
| Exterior & Adjacent Walls | 606.1.ABC.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 | 606.1.ABC.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 | 606.1.ABC.1.2.3 | Between walls & ceilings; penetrations of ceiling plane of 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 | 606.1.ABC.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 rated with < 2.0 cfm from conditioned space, tested. | |
| Multi-story Houses | 606.1.ABC.1.2.5 | Air barrier on perimeter of floor cavity between floors. | |
| Additional infiltration reqts | 606.1.ABC.1.3 | Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air. | |

### 6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

| COMPONENTS | SECTION | REQUIREMENTS | CHECK |
|---|---|---|---|
| Water Heaters | 612.1 | Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked cir breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required. | |
| Swimming Pools & Spas | 612.1 | 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%. | |
| Shower heads | 612.1 | Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG. | |
| Air Distribution Systems | 610.1 | All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation. | |
| HVAC Controls | 607.1 | Separate readily accessible manual or automatic thermostat for each system. | |
| Insulation | 604.1, 602.1 | Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11. | |

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

**ESTIMATED ENERGY PERFORMANCE SCORE* = 86.9**

**The higher the score, the more efficient the home.**

, TH-5FL CENTRAL, , ,

| | | | | | |
|---|---|---|---|---|---|
| 1. | New construction or existing | New | 12. | Cooling systems | |
| 2. | Single family or multi-family | Single family | | a. Central Unit | Cap: 42.0 kBtu/hr |
| 3. | Number of units, if multi-family | 1 | | | SEER: 14.00 |
| 4. | Number of Bedrooms | 3 | | b. N/A | |
| 5. | Is this a worst case? | Yes | | | |
| 6. | Conditioned floor area (ft²) | 2248 ft² | | c. N/A | |
| 7. | Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default) | | | | |
| | a. U-factor: | Description Area | 13. | Heating systems | |
| | (or Single or Double DEFAULT) | 7a. (Dble, U=0.5) 90.0 ft² | | a. Electric Heat Pump | Cap: 41.0 kBtu/hr |
| | b. SHGC: | | | | HSPF: 7.70 |
| | (or Clear or Tint DEFAULT) | 7b. (Clear) 247.3 ft² | | b. N/A | |
| 8. | Floor types | | | | |
| | a. Raised Wood, Stem Wall | R=10.0, 2248.0ft² | | c. N/A | |
| | b. N/A | | 14. | Hot water systems | |
| | c. N/A | | | a. Electric Resistance | Cap: 1.0 gallons |
| 9. | Wall types | | | | EF: 0.97 |
| | a. Frame, Wood, Exterior | R=19.0, 1555.0 ft² | | b. N/A | |
| | b. N/A | | | | |
| | c. N/A | | | c. Conservation credits | |
| | d. N/A | | | (HR-Heat recovery, Solar | |
| | e. N/A | | | DHP-Dedicated heat pump) | |
| 10. | Ceiling types | | 15. | HVAC credits | PT, |
| | a. Under Attic | R=30.0, 2248.0 ft² | | (CF-Ceiling fan, CV-Cross ventilation, | |
| | b. N/A | | | HF-Whole house fan, | |
| | c. N/A | | | PT-Programmable Thermostat, | |
| 11. | Ducts | | | MZ-C-Multizone cooling, | |
| | a. Sup: Unc. Ret: Unc. AH: Attic | Sup. R=6.0, 20.0 ft | | MZ-H-Multizone heating) | |
| | b. N/A | | | | |

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: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

FORM 600A-2004R EnergyGauge® 4.5

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

## Residential Whole Building Performance Method A

| | | | |
|---|---|---|---|
| Project Name: | **TH-5FL** | Builder: | |
| Address: | **TH-5FL SOUTH** | Permitting Office: | |
| City, State: | , | Permit Number: | |
| Owner: | | Jurisdiction Number: | |
| Climate Zone: | **South** | | |

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JAN 12 2007

| | | | |
|---|---|---|---|
| 1. | New construction or existing | New | |
| 2. | Single family or multi-family | Single family | |
| 3. | Number of units, if multi-family | 1 | |
| 4. | Number of Bedrooms | 3 | |
| 5. | Is this a worst case? | Yes | |
| 6. | Conditioned floor area (ft²) | 2248 ft² | |
| 7. | Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default) | | |
| a. | U-factor: (or Single or Double DEFAULT) | Description Area<br>7a. (Dble, U=0.5) 90.0 ft² | |
| b. | SHGC: (or Clear or Tint DEFAULT) | 7b. (Clear) 247.3 ft² | |
| 8. | Floor types | | |
| a. | Raised Wood, Stem Wall | R=10.0, 2248.0ft² | |
| b. | N/A | | |
| c. | N/A | | |
| 9. | Wall types | | |
| a. | Frame, Wood, Exterior | R=19.0, 1555.0 ft² | |
| b. | N/A | | |
| c. | N/A | | |
| d. | N/A | | |
| e. | N/A | | |
| 10. | Ceiling types | | |
| a. | Under Attic | R=30.0, 2248.0 ft² | |
| b. | N/A | | |
| c. | N/A | | |
| 11. | Ducts | | |
| a. | Sup: Unc. Ret: Unc. AH: Attic | Sup. R=6.0, 20.0 ft | |
| b. | N/A | | |

SEE MANUFACTURER'S CONTRACT WITH FLORIDA DCA.

| | | | |
|---|---|---|---|
| 12. | Cooling systems | | |
| a. | Central Unit | Cap: 42.0 kBtu/hr<br>SEER: 14.00 | |
| b. | N/A | | |
| c. | N/A | | |
| 13. | Heating systems | | |
| a. | Electric Heat Pump | Cap: 41.0 kBtu/hr<br>HSPF: 7.70 | |
| b. | N/A | | |
| c. | N/A | | |
| 14. | Hot water systems | | |
| a. | Electric Resistance | Cap: 1.0 gallons<br>EF: 0.97 | |
| b. | N/A | | |
| c. | Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump) | | |
| 15. | HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating) | PT, | |

Glass/Floor Area: 0.11

Total as-built points: 27501
Total base points: 27542

**PASS**

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

**PREPARED BY:** _____

**DATE:** 1/2/07

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.

Date 1-12-07 Plan No. _____

**BUILDING OFFICIAL:** SCOTT S. FRANCIS

**DATE:** _____ 2198-0014F

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.



Modular Building Plans Examiner
FL Lic. No. [illegible]

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL SOUTH, , ,** PERMIT #:

| BASE | | | | AS-BUILT | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GLASS TYPES** .18 X Conditioned Floor Area | X BSPM | = Points | | Type/SC | Overhang Ornt | Len | Hgt | Area X | SPM X | SOF | = Points |
| .18 | 2248.0 | 30.53 | 12354.0 | 1.Double,U=0.48,Clear | W | 0.0 | 0.0 | 90.0 | 64.08 | 1.00 | 5767.0 |
| | | | | 2.Double,U=0.48,Clear | E | 0.0 | 0.0 | 45.0 | 70.94 | 1.00 | 3192.0 |
| | | | | 3.Double, Clear | E | 0.0 | 0.0 | 40.0 | 68.60 | 1.00 | 2743.0 |
| | | | | 4.Double, Clear | E | 0.0 | 0.0 | 12.3 | 68.60 | 1.00 | 840.0 |
| | | | | 5.Double,U=0.48,Clear | N | 0.0 | 0.0 | 30.0 | 34.70 | 1.00 | 1041.0 |
| | | | | 6.Double,U=0.48,Clear | S | 0.0 | 0.0 | 30.0 | 60.89 | 1.00 | 1826.0 |
| | | | | **As-Built Total:** | | | | **247.3** | | | **15409.0** |
| **WALL TYPES** | Area X | BSPM = | Points | Type | | | R-Value | Area X | SPM = | | Points |
| Adjacent | 0.0 | 0.00 | 0.0 | 1. Frame, Wood, Exterior | | | 19.0 | 1555.0 | 1.60 | | 2488.0 |
| Exterior | 1555.0 | 2.70 | 4198.5 | | | | | | | | |
| **Base Total:** | **1555.0** | | **4198.5** | **As-Built Total:** | | | | **1555.0** | | | **2488.0** |
| **DOOR TYPES** | Area X | BSPM = | Points | Type | | | | Area X | SPM = | | Points |
| Adjacent | 0.0 | 0.00 | 0.0 | 1.Exterior Insulated | | | | 40.0 | 6.40 | | 256.0 |
| Exterior | 40.0 | 6.40 | 256.0 | | | | | | | | |
| **Base Total:** | **40.0** | | **256.0** | **As-Built Total:** | | | | **40.0** | | | **256.0** |
| **CEILING TYPES** | Area X | BSPM = | Points | Type | | | R-Value | Area X | SPM X SCM = | | Points |
| Under Attic | 2248.0 | 2.80 | 6294.4 | 1. Under Attic | | | 30.0 | 2248.0 | 2.77 X 1.00 | | 6227.0 |
| **Base Total:** | **2248.0** | | **6294.4** | **As-Built Total:** | | | | **2248.0** | | | **6227.0** |
| **FLOOR TYPES** | Area X | BSPM = | Points | Type | | | R-Value | Area X | SPM = | | Points |
| Slab | 0.0(p) | 0.0 | 0.0 | 1. Raised Wood, Stem Wall | | | 10.0 | 2248.0 | -0.68 | | -1517.4 |
| Raised | 2248.0 | -2.16 | -4855.7 | | | | | | | | |
| **Base Total:** | | | **-4855.7** | **As-Built Total:** | | | | **2248.0** | | | **-1517.4** |
| **INFILTRATION** | Area X | BSPM = | Points | | | | | Area X | SPM = | | Points |
| | 2248.0 | 18.79 | 42239.9 | | | | | 2248.0 | 18.79 | | 42239.9 |

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL SOUTH, , ,** PERMIT #:

| BASE | | | AS-BUILT | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Summer Base Points: 60487.1** | | | **Summer As-Built Points:** | | | | | **65102.5** |
| Total Summer Points | X System Multiplier | = Cooling Points | Total Component (System - Points) | X Cap Ratio | X Duct Multiplier (DM x DSM x AHU) | X System Multiplier | X Credit Multiplier | = Cooling Points |
| | | | (sys 1: Central Unit 42000btuh ,SEER/EFF(14.0) Ducts:Unc(S),Unc(R),Att(AH),R6.0(INS) | | | | | |
| 60487.1 | 0.3250 | 19658.3 | 65102<br>**65102.5** | 1.00<br>**1.00** | (1.07 x 1.165 x 1.08)<br>**1.350** | 0.244<br>**0.244** | 0.950<br>**0.950** | 20337.5<br>**20337.5** |

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL SOUTH, , ,** PERMIT #:

| BASE | | | | AS-BUILT | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GLASS TYPES** .18 X Conditioned Floor Area | X BWPM | = Points | | Type/SC | Overhang Ornt | Len | Hgt | Area X | WPM X | WOF | = Points |
| .18 | 2248.0 | 3.60 | 1457.0 | 1.Double,U=0.48,Clear | W | 0.0 | 0.0 | 90.0 | 2.09 | 1.00 | 188.0 |
| | | | | 2.Double,U=0.48,Clear | E | 0.0 | 0.0 | 45.0 | 1.43 | 1.00 | 64.0 |
| | | | | 3.Double, Clear | E | 0.0 | 0.0 | 40.0 | 3.30 | 1.00 | 131.0 |
| | | | | 4.Double, Clear | E | 0.0 | 0.0 | 12.3 | 3.30 | 1.00 | 40.0 |
| | | | | 5.Double,U=0.48,Clear | N | 0.0 | 0.0 | 30.0 | 2.47 | 1.00 | 73.0 |
| | | | | 6.Double,U=0.48,Clear | S | 0.0 | 0.0 | 30.0 | 1.27 | 1.00 | 37.0 |
| | | | | **As-Built Total:** | | | | **247.3** | | | **533.0** |

| **WALL TYPES** | Area X | BWPM | = Points | Type | R-Value | Area X | WPM | = Points |
|---|---|---|---|---|---|---|---|---|
| Adjacent | 0.0 | 0.00 | 0.0 | 1. Frame, Wood, Exterior | 19.0 | 1555.0 | 0.30 | 466.5 |
| Exterior | 1555.0 | 0.60 | 933.0 | | | | | |
| **Base Total:** | **1555.0** | | **933.0** | **As-Built Total:** | | **1555.0** | | **466.5** |

| **DOOR TYPES** | Area X | BWPM | = Points | Type | Area X | WPM | = Points |
|---|---|---|---|---|---|---|---|
| Adjacent | 0.0 | 0.00 | 0.0 | 1.Exterior Insulated | 40.0 | 1.80 | 72.0 |
| Exterior | 40.0 | 1.80 | 72.0 | | | | |
| **Base Total:** | **40.0** | | **72.0** | **As-Built Total:** | **40.0** | | **72.0** |

| **CEILING TYPES** | Area X | BWPM | = Points | Type | R-Value | Area X | WPM X WCM | = Points |
|---|---|---|---|---|---|---|---|---|
| Under Attic | 2248.0 | 0.10 | 224.8 | 1. Under Attic | 30.0 | 2248.0 | 0.10 X 1.00 | 224.8 |
| **Base Total:** | **2248.0** | | **224.8** | **As-Built Total:** | | **2248.0** | | **224.8** |

| **FLOOR TYPES** | Area X | BWPM | = Points | Type | R-Value | Area X | WPM | = Points |
|---|---|---|---|---|---|---|---|---|
| Slab | 0.0(p) | 0.0 | 0.0 | 1. Raised Wood, Stem Wall | 10.0 | 2248.0 | 0.00 | 0.0 |
| Raised | 2248.0 | -0.28 | -629.4 | | | | | |
| **Base Total:** | | | **-629.4** | **As-Built Total:** | | **2248.0** | | **0.0** |

| **INFILTRATION** | Area X | BWPM | = Points | | Area X | WPM | = Points |
|---|---|---|---|---|---|---|---|
| | 2248.0 | -0.06 | -134.9 | | 2248.0 | -0.06 | -134.9 |

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL SOUTH, , ,** PERMIT #:

| BASE | | | AS-BUILT | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Winter Base Points:** | | **1922.5** | **Winter As-Built Points:** | | | | | **1161.4** |
| Total Winter Points | X System Multiplier | = Heating Points | Total Component (System - Points) | X Cap Ratio | X Duct Multiplier (DM x DSM x AHU) | X System Multiplier | X Credit Multiplier | = Heating Points |
| | | | (sys 1: Electric Heat Pump 41000 btuh ,EFF(7.7) Ducts:Unc(S),Unc(R),Att(AH),R6.0 | | | | | |
| 1922.5 | 0.5540 | 1065.1 | 1161.4<br>**1161.4** | 1.000<br>**1.00** | (1.099 x 1.137 x 1.14)<br>**1.425** | 0.443<br>**0.443** | 0.950<br>**0.950** | 696.0<br>**696.0** |

# WATER HEATING & CODE COMPLIANCE STATUS

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL SOUTH, , ,** PERMIT #:

| BASE | | | | AS-BUILT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **WATER HEATING** Number of Bedrooms | X Multiplier | = Total | | Tank Volume | EF | Number of Bedrooms | X Tank Ratio | X Multiplier | X Credit Multiplier | = Total |
| 3 | 2273.00 | 6819.0 | | 1.0 | 0.97 | 3 | 1.00 | 2155.83 | 1.00 | 6467.5 |
| | | | | **As-Built Total:** | | | | | | **6467.5** |

## CODE COMPLIANCE STATUS

| BASE | | | | AS-BUILT | | | |
|---|---|---|---|---|---|---|---|
| Cooling Points | + Heating Points | + Hot Water Points | = Total Points | Cooling Points | + Heating Points | + Hot Water Points | = Total Points |
| **19658** | **1065** | **6819** | **27542** | **20337** | **696** | **6468** | **27501** |

# PASS

# Code Compliance Checklist

## Residential Whole Building Performance Method A - Details

ADDRESS: **TH-5FL SOUTH, , ,** PERMIT #:

### 6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

| COMPONENTS | SECTION | REQUIREMENTS FOR EACH PRACTICE | CHECK |
|---|---|---|---|
| Exterior Windows & Doors | 606.1.ABC.1.1 | Maximum:.3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area. | |
| Exterior & Adjacent Walls | 606.1.ABC.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 | 606.1.ABC.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 | 606.1.ABC.1.2.3 | Between walls & ceilings; penetrations of ceiling plane of 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 | 606.1.ABC.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 rated with < 2.0 cfm from conditioned space, tested. | |
| Multi-story Houses | 606.1.ABC.1.2.5 | Air barrier on perimeter of floor cavity between floors. | |
| Additional Infiltration reqts | 606.1.ABC.1.3 | Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air. | |

### 6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

| COMPONENTS | SECTION | REQUIREMENTS | CHECK |
|---|---|---|---|
| Water Heaters | 612.1 | Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked cir breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required. | |
| Swimming Pools & Spas | 612.1 | 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%. | |
| Shower heads | 612.1 | Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG. | |
| Air Distribution Systems | 610.1 | All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation. | |
| HVAC Controls | 607.1 | Separate readily accessible manual or automatic thermostat for each system. | |
| Insulation | 604.1, 602.1 | Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11. | |

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

**ESTIMATED ENERGY PERFORMANCE SCORE* = 87.2**

**The higher the score, the more efficient the home.**

, TH-5FL SOUTH, , ,

| | | | | | |
|---|---|---|---|---|---|
| 1. | New construction or existing | New | | 12. Cooling systems | |
| 2. | Single family or multi-family | Single family | | a. Central Unit | Cap: 42.0 kBtu/hr |
| 3. | Number of units, if multi-family | 1 | | | SEER: 14.00 |
| 4. | Number of Bedrooms | 3 | | b. N/A | |
| 5. | Is this a worst case? | Yes | | | |
| 6. | Conditioned floor area (ft²) | 2248 ft² | | c. N/A | |
| 7. | Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default) | | | | |
| | a. U-factor: | Description Area | | 13. Heating systems | |
| | (or Single or Double DEFAULT) | 7a. (Dble, U=0.5) 90.0 ft² | | a. Electric Heat Pump | Cap: 41.0 kBtu/hr |
| | b. SHGC: | | | | HSPF: 7.70 |
| | (or Clear or Tint DEFAULT) | 7b. (Clear) 247.3 ft² | | b. N/A | |
| 8. | Floor types | | | | |
| | a. Raised Wood, Stem Wall | R=10.0, 2248.0ft² | | c. N/A | |
| | b. N/A | | | | |
| | c. N/A | | | 14. Hot water systems | |
| 9. | Wall types | | | a. Electric Resistance | Cap: 1.0 gallons |
| | a. Frame, Wood, Exterior | R=19.0, 1555.0 ft² | | | EF: 0.97 |
| | b. N/A | | | b. N/A | |
| | c. N/A | | | | |
| | d. N/A | | | c. Conservation credits | |
| | e. N/A | | | (HR-Heat recovery, Solar | |
| 10. | Ceiling types | | | DHP-Dedicated heat pump) | |
| | a. Under Attic | R=30.0, 2248.0 ft² | | 15. HVAC credits | PT, |
| | b. N/A | | | (CF-Ceiling fan, CV-Cross ventilation, | |
| | c. N/A | | | HF-Whole house fan, | |
| 11. | Ducts | | | PT-Programmable Thermostat, | |
| | a. Sup: Unc. Ret: Unc. AH: Attic | Sup. R=6.0, 20.0 ft | | MZ-C-Multizone cooling, | |
| | b. N/A | | | MZ-H-Multizone heating) | |

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: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

# Product Approval

TOWNHOMES, LLC
Model Number: TH-5FL
HWC Number: 2198-0014F

## Exterior Doors

| Category | Manufacturer | Description | Approval # |
|---|---|---|---|
| Swinging | Elixer | Exterior Door | FL1722-R1 |
| Double | Jeld-Wen | Ext. Double Door | FL3942 |

## Exterior Windows

| Category | Manufacturer | Description | Approval # |
|---|---|---|---|
| Single Hung | Kinro | Single Hung | FL993-R2 |

## Exterior Wall

| Category | Manufacturer | Description | Approval # |
|---|---|---|---|
| Siding | Variform, Inc. | Vinyl Siding | FL1606-R1 |
| Fascia | James Hardie | Hardi-board Fascia | FL1889-R1 |

## Roofing

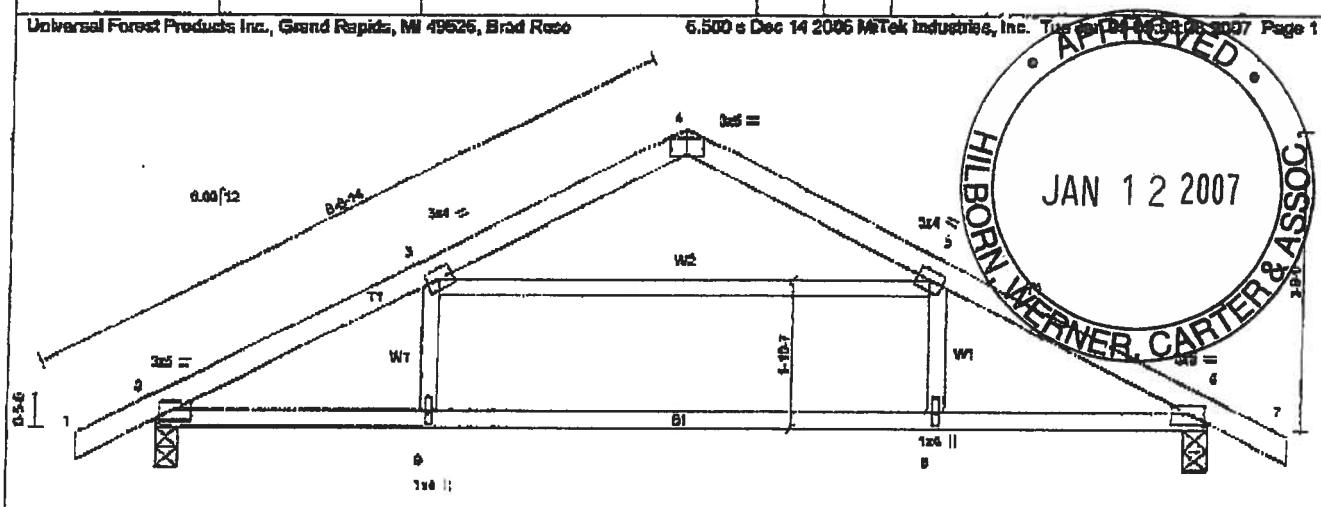
| Category | Manufacturer | Description | Approval # |
|---|---|---|---|
| Shingles | Owens Corning | Asphalt Shingles | FL3663-R1 |
| Fasteners | Senco Products | Roofing Nail | FL5135 |

## Structural

| Category | Manufacturer | Description | Approval # |
|---|---|---|---|
| Strapping | United Steel Products | Uplift Straps | FL822 |
| Truss Tie-Down | Simpson | Truss Tie-Down | FL1423-R2 |

| Job | Truss | Truss Type | Qty | Ply | TOWNHOMES 216 FL |
|---|---|---|---|---|---|
| 39042 | P667401 | PEAK | 1 | 1 | 2160402 |

Universal Forest Products Inc., Grand Rapids, MI 49525, Brad Rose — 6.500 s Dec 14 2006 MiTek Industries, Inc. Tue Jan 09 08:30:39 2007 Page 1 of 2

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JAN 12 2007

| -1-0-0 | 3-5-7 | 6-6-0 | 9-10-9 | 13-4-0 | 14-4-0 |
|---|---|---|---|---|---|
| 1-0-0 | 3-5-7 | 3-2-9 | 3-2-9 | 3-5-7 | 1-0-0 |

Plate Offsets (X,Y): [2:0-0-7,0-0-5], [4:0-2-5,Edge], [6:0-0-7,0-0-5]

| LOADING (psf) | | SPACING | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 18.0 | Plates Increase | 1.15 | TC | 0.30 | Vert(LL) | -0.11 | 8-9 | >999 | 240 | MT20 | 197/144 |
| (Ground Snow=20.0) | | Lumber Increase | 1.15 | BC | 0.68 | Vert(TL) | -0.23 | 8-9 | >686 | 180 | | |
| TCDL | 7.0 | Rep Stress Incr | YES | WB | 0.60 | Horz(TL) | 0.03 | 6 | n/a | n/a | | |
| BCLL | 10.0 | Code IBC2003/TPI2002 | | (Matrix) | | | | | | | Weight: 39 lb | |
| BCDL | 7.0 | | | | | | | | | | | |

**LUMBER**
TOP CHORD 2 X 4 SPF No.2
BOT CHORD 2 X 3 SPF No.2
WEBS 2 X 3 SPF No.3

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-4-7 oc bracing.

**REACTIONS** (lb/size) 2=503/0-3-8, 6=503/0-3-8
Max Horz 2=-122(LC 9)
Max Uplift 2=-561(LC 8), 6=-561(LC 9)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-789/882, 3-4=-233/381, 4-5=-233/381, 5-6=-789/882, 6-7=0/23
BOT CHORD 2-9=-602/837, 8-9=-602/837, 6-8=-602/837
WEBS 3-9=0/186, 5-8=0/186, 3-5=-478/607

JOHN P KOZAL
No. 57289
STATE OF
PROFESSIONAL ENGINEER
1/9/07

**NOTES**
1) Wind: ASCE 7-02; 130mph; h=30ft; TCDL=4.2psf; BCDL=4.2psf; Category II; Exp C; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.33. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) TCLL: ASCE 7-02; Pg=20.0 psf (ground snow); Ps=18.0 psf (roof snow); Category II; Exp C; Partially Exp.; Ct= 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 greater of min roof live load of 18.0 psf or 2.00 times flat roof load of 14.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed as per IBC Sect. 1606.3.1.1 Load reduction, for multiple live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 561 lb uplift at joint 2 and 561 lb uplift at joint 6.
8) This truss is designed in accordance with the 2003 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

**WARNING - Verify design parameters and READ NOTES**

Universal Forest Products, Inc. 2801 EAST BELTLINE RD, NE
PHONE (616)-364-6161 FAX (616)-365-0283 GRAND RAPIDS, MI 49505

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 2.2 of TPI 1-2002. 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, 5300 Enterprise LN, Madison, WI 53719 J:\support\Miles\Support\platetemp.tpe ©copyright 2007 by: Universal Forest Products, Inc.

| Job | Truss | Truss Type | Qty | Ply | TOWNHOMES 216 |
|---|---|---|---|---|---|
| 37041 | HM584602 | HINGE MONO | 1 | 1 | 0801-01 2161253 |

Universal Forest Products Inc., Grand Rapids, MI 49525, Travis Wells — 6.300 s Feb 15 2006 MiTek Industries, Inc. Thu Aug 03 09:30:29 2006 Page 1/2

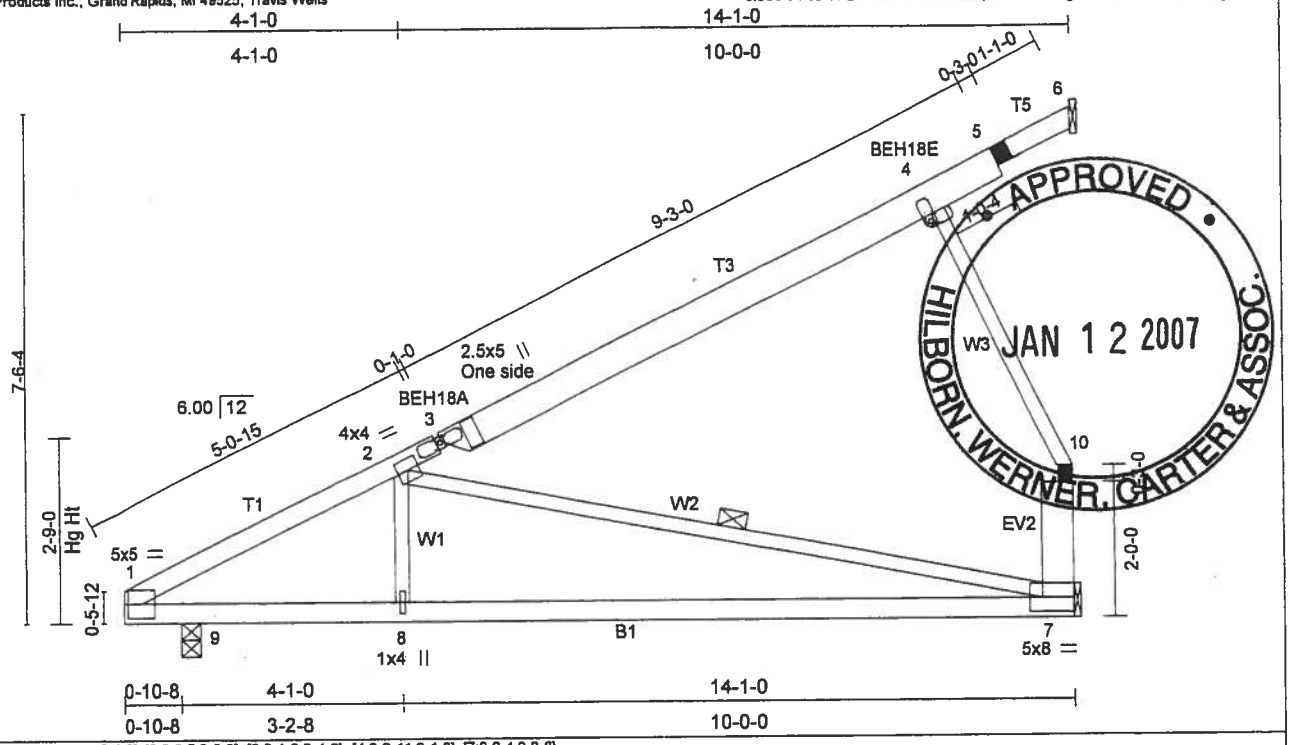



Plate Offsets (X,Y): [1:0-0-11,0-2-8], [3:0-0-5,0-0-0], [3:0-1-8,0-4-6], [4:0-0-11,0-1-2], [7:0-2-4,0-2-8]

| SPACING: 2-0-0 | | SPACING: 1-4-0 | | SPACING | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOADING (psf) | | LOADING (psf) | | Plates Increase | 1.15 | TC | 0.78 | Vert(LL) | -0.39 | 7-8 | >392 | 240 | MT20 | 197/144 |
| TCLL | 18.0 | TCLL | 27.0 | Lumber Increase | 1.15 | BC | 0.95 | Vert(TL) | -0.68 | 7-8 | >235 | 180 | MII18 | 141/138 |
| (Ground Snow=20.0) | | (Ground Snow=30.0) | | Rep Stress Incr | YES | WB | 0.48 | Horz(TL) | -0.02 | 7 | n/a | n/a | | |
| TCDL | 7.0 | TCDL | 10.5 | Code | IBC2003/TPI2002 | (Matrix) | | | | | | | Weight: 56 lb | |
| BCLL | 10.0 | BCLL | 15.0 | | | | | | | | | | | |
| BCDL | 7.0 | BCDL | 10.5 | | | | | | | | | | | |

**LUMBER**
TOP CHORD 2 X 4 SPF No.2 *Except*
T3 2 X 6 SPF No.2
BOT CHORD 2 X 4 SPF No.2
WEBS 2 X 3 SPF Stud *Except*
W2 2 X 3 SPF No.2, EV2 2 X 6 SPF Stud

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 5-10-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-7
JOINTS 1 Brace at Jt(s): 10

**REACTIONS** (lb/size) 7=435/Mechanical, 6=0/Mechanical, 9=542/0-3-8
Max Horz 6=93(load case 8), 9=556(load case 8)
Max Uplift 7=-646(load case 8), 9=-514(load case 8)
Max Grav 7=463(load case 3), 9=577(load case 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-780/453, 2-3=-256/2, 3-4=-259/81, 4-5=-91/85, 5-6=-52/93, 7-10=-246/558
BOT CHORD 1-9=-292/641, 8-9=-945/605, 7-8=-945/605
WEBS 2-8=-27/308, 2-7=-527/708, 4-10=-270/813

**REQUIRED FIELD JOINT CONNECTIONS** - Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)
5=65/91/63/0, 10=270/813/255/0

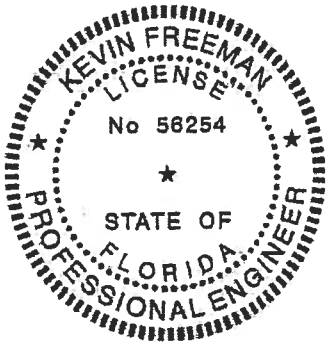

**NOTES**
1) Wind: ASCE 7-02; 130mph @24in o.c.; h=30ft; TCDL=2.8psf; BCDL=2.8psf; Category II; Exp C; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; cantilever left exposed ; Lumber DOL=1.60 plate grip DOL=1.33. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) Wind: ASCE 7-02; 159mph @16in o.c.; h=30ft; TCDL=4.2psf; BCDL=4.2psf; Category II; Exp C; enclosed; MWFRS gable end and C-C Exterior(2) zone; cantilever left exposed ; Lumber DOL=1.60 plate grip DOL=1.33. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) TCLL: ASCE 7-02; Pg=20.0 psf (ground snow); Ps=18.0 psf (roof snow); Category II; Exp C; Partially Exp.; Ct= 1; IBC 1607.11.2 minimum roof live load applied where required.
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed as per IBC Sect. 1605.3.1.1 Load reduction, for multiple 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 646 lb uplift at joint 7 and 514 lb uplift at joint 9.
12) This truss is designed in accordance with the 2003 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
13) This truss has been designed to meet the 2003 IBC Section 2308.10.7.1; 2003 IRC R802.10.2
14) Based on HM584601. Revision: Increased KP gap.

**WARNING - *Verify design parameters and READ NOTES***

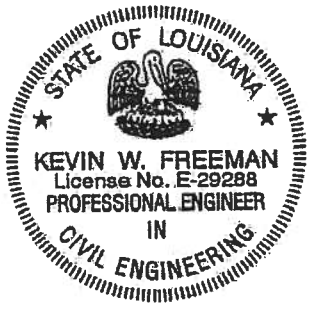
Universal Forest Products, Inc. 2801 EAST BELTLINE RD, NE
PHONE (616)-364-6161 FAX (616)-365-0060 GRAND RAPIDS, MI 49505

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 TPI1-2002. 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\MitekSupp\templates\ufp.tpe

TR2.0


August 3, 2006

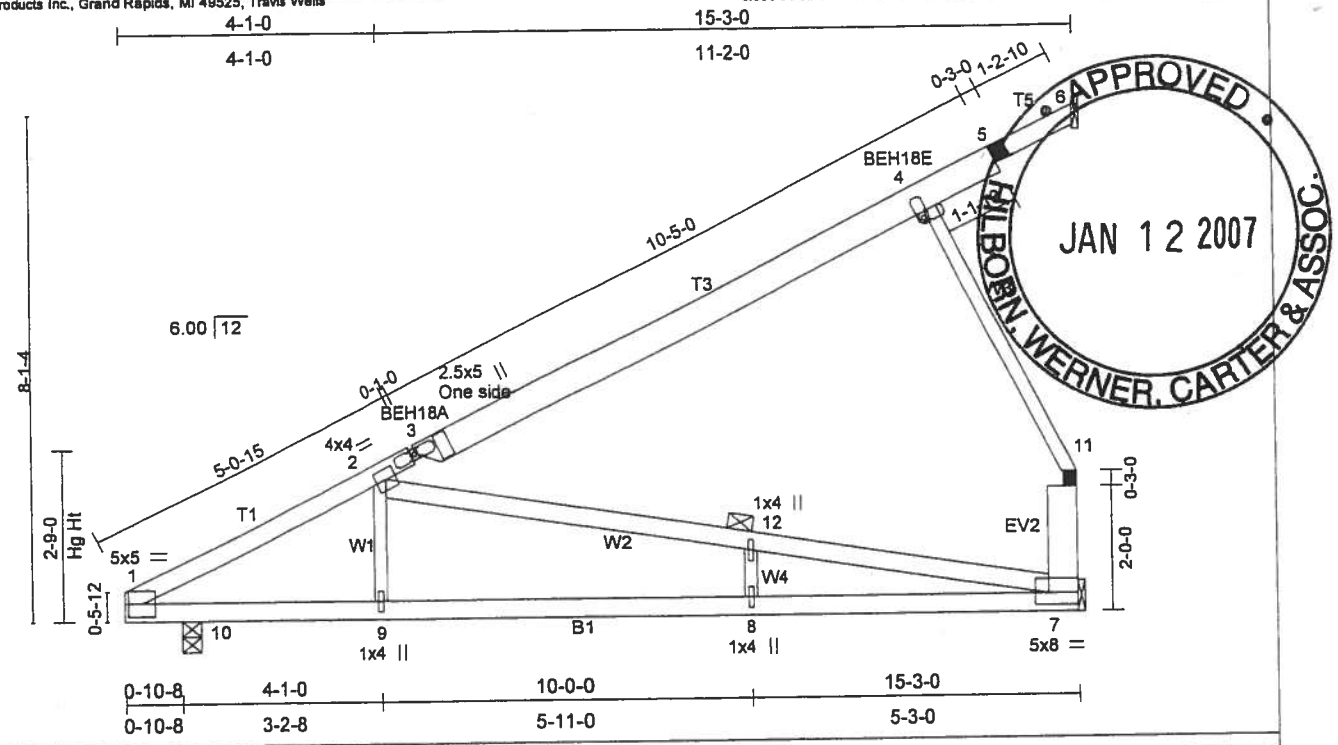




TR 2.1

| Job | Truss | Truss Type | Qty | Ply | TOWNHOMES 216 |
|---|---|---|---|---|---|
| 37041 | HM584503 | HINGE MONO | 1 | 1 | 0801-01 2161253 |

Universal Forest Products Inc., Grand Rapids, MI 49525, Travis Wells — 6.300 s Feb 15 2006 MiTek Industries, Inc. Thu Aug 03 09:30:18 2006 Page 1/2




APPROVED
JAN 12 2007
HILBORN, WERNER, CARTER & ASSOC.

Plate Offsets (X,Y): [1:0-0-11,0-2-8], [3:0-0-5,0-0-0], [3:0-1-8,0-4-6], [4:0-0-11,0-1-2], [7:Edge,0-2-4]

| SPACING: 2-0-0 | SPACING: 1-4-0 | SPACING 2-0-0 | CSI | DEFL in (loc) l/defl L/d | PLATES GRIP |
|---|---|---|---|---|---|
| LOADING (psf) | LOADING (psf) | Plates Increase 1.15 | TC 0.86 | Vert(LL) -0.40 7-8 >418 240 | MT20 197/144 |
| TCLL 18.0 | TCLL 27.0 | Lumber Increase 1.15 | BC 0.95 | Vert(TL) -0.62 8-9 >272 180 | MII18 141/138 |
| (Ground Snow=20.0) | (Ground Snow=30.0) | Rep Stress Incr YES | WB 0.59 | Horz(TL) -0.03 7 n/a n/a | |
| TCDL 7.0 | TCDL 10.5 | Code IBC2003/TPI2002 | (Matrix) | | Weight: 65 lb |
| BCLL 10.0 | BCLL 15.0 | | | | |
| BCDL 7.0 | BCDL 10.5 | | | | |

LUMBER
TOP CHORD 2 X 4 SPF No.2 *Except* T3 2 X 6 SPF No.2
BOT CHORD 2 X 4 SPF No.2
WEBS 2 X 3 SPF Stud *Except* W2 2 X 4 SPF No.2, EV2 2 X 6 SPF Stud

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
JOINTS 1 Brace at Jt(s): 11, 12

REACTIONS (lb/size) 7=474/Mechanical, 6=0/Mechanical, 10=585/0-3-8
Max Horz 6=105(load case 8), 10=596(load case 8)
Max Uplift 7=-699(load case 8), 10=-553(load case 8)
Max Grav 7=503(load case 3), 10=623(load case 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-847/549, 2-3=-288/6, 3-4=-291/71, 4-5=-102/95, 5-6=-59/104, 7-11=-275/609
BOT CHORD 1-10=-383/701, 9-10=-1066/660, 8-9=-1066/660, 7-8=-1066/660
WEBS 2-9=-37/270, 2-12=-563/806, 7-12=-575/794, 4-11=-303/671, 8-12=0/81

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)
5=74/102/68/0, 11=303/671/281/0

SOUTH CAROLINA REGISTERED 20654 PROFESSIONAL ENGINEER KEVIN W. [illegible]

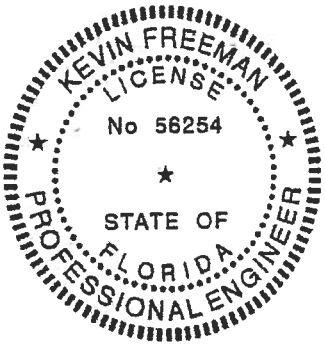
NOTES
1) Wind: ASCE 7-02; 130mph @24in o.c.; h=30ft; TCDL=2.8psf; BCDL=2.8psf; Category II; Exp C; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; cantilever left exposed ; Lumber DOL=1.60 plate grip DOL=1.33. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) Wind: ASCE 7-02; 159mph @16in o.c.; h=30ft; TCDL=4.2psf; BCDL=4.2psf; Category II; Exp C; enclosed; MWFRS gable end and C-C Exterior(2) zone; cantilever left exposed ; Lumber DOL=1.60 plate grip DOL=1.33. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) TCLL: ASCE 7-02; Pg=20.0 psf (ground snow); Ps=18.0 psf (roof snow); Category II; Exp C; Partially Exp.; Ct= 1; IBC 1607.11.2 minimum roof live load applied where required.
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed as per IBC Sect. 1605.3.1.1 Load reduction, for multiple 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 699 lb uplift at joint 7 and 553 lb uplift at joint 10.
12) This truss is designed in accordance with the 2003 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
13) This truss has been designed to meet the 2003 IBC Section 2308.10.7.1; 2003 IRC R802.10.2
14) Based on HM584501. Revision: Increased KP gap.

**WARNING - *Verify design parameters and READ NOTES***

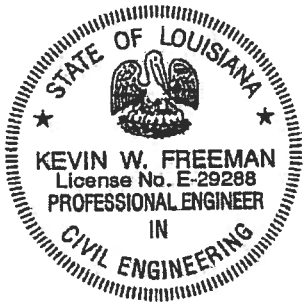
Universal Forest Products, Inc. 2801 EAST BELTLINE RD, NE
PHONE (616)-364-6161 FAX (616)-365-0060 GRAND RAPIDS, MI 49505

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 TPI1-2002. 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 avaliable from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MiTekSupp\templates\ufp.tpe

TR1.0


August 3, 2006





TR1.1

# CERTIFICATE OF OCCUPANCY

## COLUMBIA COUNTY, FLORIDA

## Department of Building and Zoning Inspection

***This Certificate of Occupancy is issued to the below named permit holder for the building and premises at the below named location, and certifies that the work has been completed in accordance with the Columbia County Building Code.***

**Parcel Number** 15-4S-16-03024-006 **Building permit No.** 000025470

**Use Classification** MODULAR/UTILITY **Fire:** 44.64

**Permit Holder** KEVIN BEDENBAUGH **Waste:** 134.00

**Owner of Building** KENNETH & CONNIE CALLAHAN **Total:** 178.64

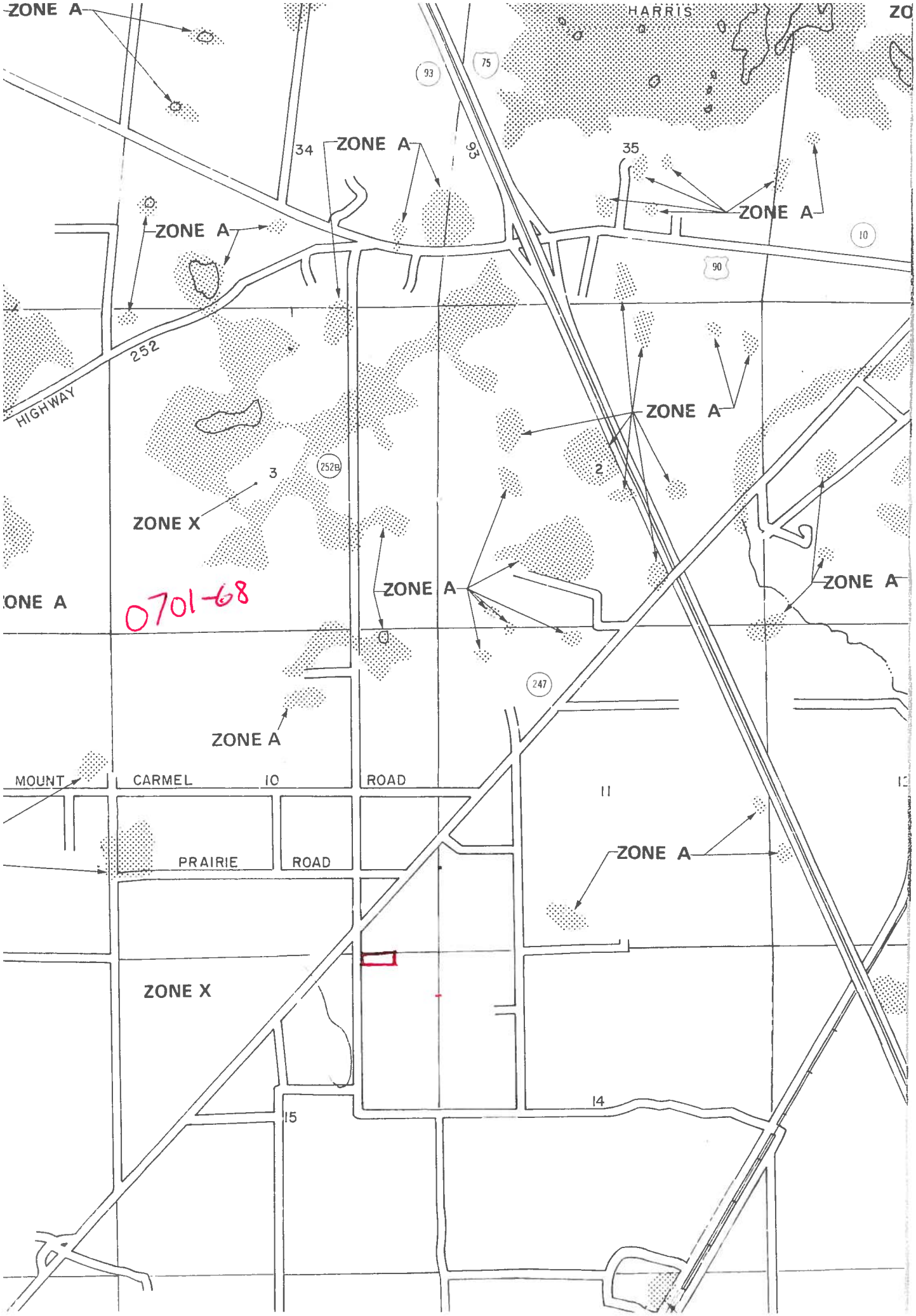
**Location:** 209 SW CALLAHAN AVE, LAKE CITY, FL

**Date:** 02/27/2007

Harry Dicks by G

**Building Inspector**

**POST IN A CONSPICUOUS PLACE**
***(Business Places Only)***


ZONE A
HARRIS
93
75
34
ZONE A
93
35
ZONE A
ZONE A
10
90
252
HIGHWAY
ZONE A
252B
3
ZONE X
2
ZONE A
ZONE A
ONE A
0701-68
247
ZONE A
MOUNT
CARMEL
10
ROAD
11
PRAIRIE
ROAD
ZONE A
ZONE X
14
15

HWC

ENGINEERING • INSPECTIONS
CERTIFICATIONS • TESTING

January 12, 2007

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

RE: Manufacturer: TownHomes
S/N Size & Occupancy TH-5FL 29'-0" X 66'-0", 15'-2" X 26'-8" R-3
HWC Plan#: 2198-0014F

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 2004 Florida Codes and Standards, with 2006 supplement, 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

FILE COPY

**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 Dapia Inspection