

DATE09/23/2004

Columbia County Building Permit

This Permit Expires One Year From the Date of Issue

PERMIT000022335

APPLICANTJULIE K.G. MURPHY

PHONE754.6678

ADDRESS281SW GENERATIONS LOOP

LAKE CITYFL32024

OWNERDAVID & JULIE MURPHY

PHONE386.754.668

ADDRESS281SW GENERATIONS LOOP

LAKE CITYFL32024

CONTRACTORDAVID & JULIE MURPHY

PHONE386.754.6678

LOCATION OF PROPERTY

441-S PAST ELLISVILLE, GO 3 MILES PAST TOMMIE LITES RD, 2ND DRIVE @ GENERATIONS LOOP ON THE RIGHT SIDE.

TYPE DEVELOPMENTSFD & UTILITY

ESTIMATED COST OF CONSTRUCTION114600.00

HEATED FLOOR AREA2292.00

TOTAL AREA3780.00

HEIGHT.00

STORIES1

FOUNDATIONCONC

WALLSFRAMED

ROOF PITCH4'12

FLOORCONC

LAND USE & ZONINGA-3

MAX. HEIGHT35

Minimum Set Back Requirments:

STREET-FRONT30.00

REAR25.00

SIDE25.00

NO. EX.D.U.0

FLOOD ZONEA

DEVELOPMENT PERMIT NO.

PARCEL ID15-6S-17-09678-010

SUBDIVISIONAMBERWOOD

LOT10

BLOCK

PHASE

UNIT

TOTAL ACRES5.00

Culvert Permit No.PRIVATE

Culvert Waiver04-0732-N

Contractor's License NumberBLK

Applicant/Owner/ContractorJDKN

Driveway Connection

Septic Tank Number

LU & Zoning checked by

Approved for Issuance

New Resident

COMMENTS: NOC ON FILE

1 FOOT ABOVE ROAD.

Check # or Cash1132

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power	Foundation	Monolithic
date/app. by	date/app. by	date/app. by
Under slab rough-in plumbing	Slab	Sheathing/Nailing
date/app. by	date/app. by	date/app. by
Framing	Rough-in plumbing above slab and below wood floor	
date/app. by		date/app. by
Electrical rough-in	Heat & Air Duct	Peri. beam (Lintel)
date/app. by	date/app. by	date/app. by
Permanent power	C.O. Final	Culvert
date/app. by	date/app. by	date/app. by
M/H tie downs, blocking, electricity and plumbing		Pool
	date/app. by	date/app. by
Reconnection	Pump pole	Utility Pole
date/app. by	date/app. by	date/app. by
M/H Pole	Travel Trailer	Re-roof
date/app. by	date/app. by	date/app. by

BUILDING PERMIT FEE \$	575.00	CERTIFICATION FEE \$	18.90	SURCHARGE FEE \$	18.90
MISC. FEES \$	.00	ZONING CERT. FEE \$	50.00	FIRE FEE \$	WASTE FEE \$
FLOOD ZONE DEVELOPMENT FEE \$		CULVERT FEE \$		TOTAL FEE	662.80
INSPECTORS OFFICE		CLERKS OFFICE			

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

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

This Permit Must Be Prominently Posted on Premises During Construction

PLEASE NOTIFY THE COLUMBIA COUNTY BUILDING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF EACH INSPECTION, IN ORDER THAT IT MAY BE MADE WITHOUT DELAY OR INCONVIENCE, PHONE 758-1008. THIS PERMIT IS NOT VALID UNLESS THE WORK AUTHORIZED BY IT IS COMMENCED WITHIN 6 MONTHS AFTER ISSUANCE.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

This Instrument Prepared by & return to:

Name: **SHERRY GIANAKAS**

Address: **247 SW GENERATIONS LOOP**

LAKE CITY, FL 32024

Parcel I.D. #: **15-6S-17-09678-005**

SPACE ABOVE THIS LINE FOR PROCESSING DATA

SPACE ABOVE THIS LINE FOR RECORDING DATA

THIS WARRANTY DEED Made the 2ND day of JUNE, A.D. 2004, by **CHRIS GIANAKAS AND SHERRY GIANAKAS, HIS WIFE**, hereinafter called the grantor, to **JULIE K. G. MURPHY AND DAVID A. MURPHY, HUSBAND AND WIFE**, whose post office address is 281 SW GENERATIONS LOOP, LAKE CITY, FL 32024, hereinafter called the grantees:

(Wherever used herein the terms "grantor" and "grantees" include all the parties to this instrument, singular and plural, the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations, wherever the context so admits or requires.)

Witnesseth: That the grantor, for and in consideration of the sum of \$10.00 and other valuable consideration, receipt whereof is hereby acknowledged, does hereby grant, bargain, sell, alien, remise, release, convey and confirm unto the grantees all that certain land situate in **COLUMBIA County, State of FLORIDA**, viz:

SEE EXHIBIT "A" ATTACHED

SUBJECT TO EASEMENT IN FAVOR OF CLAY ELECTRIC AS RECORDED IN O.R. BOOK 594, PAGE 21 OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA.

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

To Have and to Hold the same in fee simple forever.

And the grantor hereby covenants with said grantees that he is lawfully seized of said land in fee simple; that he has good right and lawful authority to sell and convey said land, and hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever, and that said land is free of all encumbrances. except taxes accruing subsequent to December 31, 2003.

In Witness Whereof, the said grantor has signed and sealed these presents, the day and year first above written.

Signed, sealed and delivered in the presence of:

Terra Jones
Witness Signature

Terra Jones
Printed Name

Diana Parker
Witness Signature

Diana Parker
Printed Name

Chris Gianakas L.S.

CHRIS GIANAKAS

Address: 247 SW GENERATIONS LOOP, LAKE CITY, FL 32024

Sherry Gianakas L.S.

SHERRY GIANAKAS

ADDRESS: 247 SW GENERATIONS LOOP, LAKE CITY, FL 32024

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this 5th day of May, 1999, by **CHRIS GIANAKAS AND SHERRY GIANAKAS**, who is known to me or who has produced Florida Drivers License as identification.

FDL G522-10046-209-0
G522-79746878-0

Pamela H Woodington
Notary Public
My commission expires _____

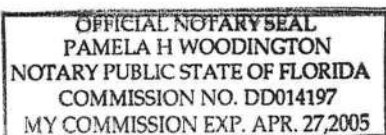


EXHIBIT "A"

III. PARCEL #10

FROM A CONCRETE MONUMENT AT THE SOUTHWEST CORNER OF
NORTHWEST QUARTER OF SAID SECTION 15 RUN NORTH $88^{\circ}29'19''$ EAST
ALONG FORTY LINE 77.84 FEET TO THE SOUTHWEST CORNER AND POINT
OF BEGINNING OF THE HEREIN DESCRIBED PARCEL; THENCE NORTH
 $01^{\circ}45'11''$ WEST 27 FEET; THENCE NORTH $88^{\circ}29'19''$ EAST 898.71 FEET TO
THE WEST RIGHT OF WAY OF U.S. HIGHWAY 41; THENCE SOUTH $11^{\circ}46'05''$
WEST ALONG SOUTHWEST RIGHT OF WAY LINE 258.17 FEET, TO THE FORTY LINE;
THENCE SOUTH $8^{\circ}29'19''$ WEST ALONG FORTY LINE 838.35 FEET TO POINT
OF BEGINNING

BEING IN THE SE 1/4 OF NW 1/4 OF SAID SECTION 15, TOWNSHIP 6 SOUTH,
RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA. THE BEARINGS HEREIN
ARE REFERRED TO THE BEARING (NORTH $11^{\circ}46'05''$ EAST) OF U.S. HIGHWAY
41.

~~Building a new set of plans~~
Columbia County Building Permit Application

For Office Use Only Application # 0408-60 Date Received 8-18-04 By CH Permit # 22335
Application Approved by - Zoning Official _____ Date _____ Plans Examiner _____ Date _____
Flood Zone A Development Permit N/A Zoning A-3 Land Use Plan Map Category A.3
Comments 1' above paved Road

Applicants Name Julie K G Murphy Phone 386 344 3567
Address 281 sw Generations Loop Lake City FL 32024
Owners Name David + Julie Murphy Phone 386 344 3567
911 Address same as above
Contractors Name Owner Contractor Phone _____
Address _____
Fee Simple Owner Name & Address _____
Bonding Co. Name & Address _____
Architect/Engineer Name & Address Roger B chewing / Xtreme Design 15107 Rialto Dr Brooksville FL 3461
Mortgage Lenders Name & Address N/A
now R15 6517 09678005
Property ID Number proposed R15 6517 09678010 **Estimated Cost of Construction** 60,000
Subdivision Name Amberwood Sub unrecorded Lot 10 Block 10 Unit _____ Phase _____
Driving Directions on 441 South - I 75 EXIT 414 go South 2 miles - SW
generations Loop 2nd entrance (Right side)
Type of Construction SFD **Number of Existing Dwellings on Property** 0
Total Acreage 5 **Lot Size** 25' x 89' x 25' x 83' **Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive** _____
Actual Distance of Structure from Property Lines - Front 250' **Side** 153' **Side** 98' **Rear** 436'
Total Building Height 16' 7 1/2" **Number of Stories** 1 **Heated Floor Area** 2292 **Roof Pitch** 4/12

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 COMMENCEMENT 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.

Julie K G Murphy
Owner Builder or Agent (Including Contractor)

STATE OF FLORIDA
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me
this 17th day of August 20 04.
Personally known ✓ or Produced Identification _____

Contractor Signature _____
Contractors License Number _____
Competency Card Number _____

NOTARY STAMP/SEAL

Charles Gardner
NOTARY PUBLIC
MY COMMISSION #DD241748
EXPIRES: AUG 17, 2007
Bonded through Advantage Notary
Notary Signature

DISCLOSURE STATEMENT

FOR OWNER/BUILDER WHEN ACTING AS THEIR OWN CONTRACTOR AND CLAIMING EXEMPTION OF CONTRACTOR LICENSING REQUIREMENTS IN ACCORDANCE WITH FLORIDA STATUTES, ss. 489.103(7).

State law requires construction to be done by licensed contractors. You have applied for a permit under an exemption to that law. The exemption allows you, as the owner of your property, to act as your own contractor with certain restrictions even though you do not have a license. You must provide direct, onsite supervision of the construction yourself. You may build or improve a one-family or two-family residence or a farm outbuilding. You may also build or improve a commercial building, provided your costs do not exceed \$25,000. The building or residence must be for your own use or occupancy. It may not be built or substantially improved for sale or lease. If you sell or lease a building you have built or substantially improved yourself within 1 year after the construction is complete, the law will presume that you built or substantially improved it for sale or lease, which is a violation of this exemption. You may not hire an unlicensed person to act as your contractor or to supervise people working on your building. It is your responsibility to make sure that people employed by you have licenses required by state law and by county or municipal licensing ordinances. You may not delegate the responsibility for supervising work to a licensed contractor who is not licensed to perform the work being done. Any person working on your building who is not licensed must work under your direct supervision and must be employed by you, which means that you must deduct F.I.C.A. and withholding tax and provide workers' compensation for that employee, all as prescribed by law. Your construction must comply with all applicable laws, ordinances, building codes, and zoning regulations.

TYPE OF CONSTRUCTION

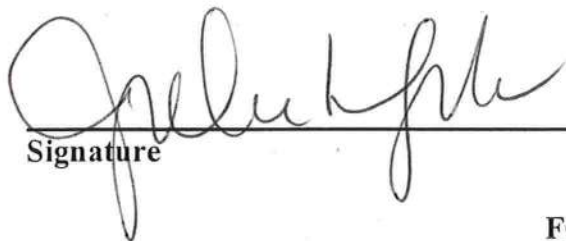
- ☒ Single Family Dwelling
☐ Farm Outbuilding
☒ New Construction

- ☐ Two-Family Residence
☐ Other _____

☐ Addition, Alteration, Modification or other Improvement

NEW CONSTRUCTION OR IMPROVEMENT

I Julie K G Murphy, have been advised of the above disclosure statement for exemption from contractor licensing as an owner/builder. I agree to comply with all requirements provided for in Florida Statutes ss.489.103(7) allowing this exception for the construction permitted by Columbia County Building Permit Number _____


Signature

8/18/09
Date

FOR BUILDING USE ONLY

I hereby certify that the above listed owner/builder has been notified of the disclosure statement in Florida Statutes ss 489.103(7).

Date 9-23-04 Building Official/Representative



NOTICE OF COMMENCEMENT FORM
COLUMBIA COUNTY, FLORIDA

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.

Tax Parcel ID Number Proposed R15651709678010
now R15651709678005

1. Description of property: (legal description of the property and street address or 911 address)

Amberwood Subdivision Parcel 10 (under 8 until next tax done)

281 SW Generations Loop Lake City FL 32024

2. General description of improvement: SFD - New construction

3. Owner Name & Address Julie + David Murphy 281 SW Generations Loop Lake City FL 32024
Interest in Property N/A

4. Name & Address of Fee Simple Owner (if other than owner): N/A

5. Contractor Name Owner/Builder (Julie + David Murphy) Phone Number 754-6678
Address 281 SW Generations Loop Lake City FL 32024

6. Surety Holders Name N/A
Address _____
Amount of Bond _____
Inst: 2004019053 Date: 08/18/2004 Time: 12:31
MK DC, P. DeWitt Cason, Columbia County B: 1023 P: 2351

7. Lender Name N/A
Address _____

8. Persons within the State of Florida designated by the Owner upon whom notices or other documents may be served as provided by section 718.13 (1)(a) 7; Florida Statutes:

Owner or Name Chris or Sherry Gianakas Phone Number 386 754 6678
Address 247 SW Generations Loop Lake City FL 32024

9. In addition to himself/herself the owner designates N/A of _____
to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) -
(a) 7. Phone Number of the designee _____

10. Expiration date of the Notice of Commencement (the expiration date is 1 (one) year from the date of recording, (Unless a different date is specified) _____

NOTICE AS PER CHAPTER 713, Florida Statutes:

The owner must sign the notice of commencement and no one else may be permitted to sign in his/her stead.

Julie K. Murphy
Signature of Owner

Sworn to (or affirmed) and subscribed before
day of August 17, 2004

NOTARY STAMP
TERRI P GARDNER
NOTARY COMMISSION #DD241748
EXPIRES: AUG 17, 2007
Bonded through Advantage Notary

TERRI P GARDNER
Signature of Notary

15-6S-17-09678-005 HX

Columbia County Property Appraiser

Owner & Property Info

Owner's Name	GIANAKAS CHRIS & SHERRY
Site Address	RT 2 BX 34252
Mailing Address	RT 2 BX 34252 (S US 41) LAKE CITY, FL 32024
Brief Legal	COMM SW COR OF NW1/4, RUN E 1477.84 FT POB N 708.94 FT RUN E 1008.66 FT TO W R/W

Show: [Tax Info](#) | [GIS Map](#) | [Property Card](#)

Use Desc. (code)	MOBILE HOM (000200)
Neighborhood	15617.01
Tax District	3
UD Codes	
Market Area	02
Total Land Area	15.030 ACRES

Property & Assessment Values

Mkt Land Value	cnt: (2)	\$35,216.00
Ag Land Value	cnt: (0)	\$0.00
Building Value	cnt: (1)	\$28,982.00
XFOB Value	cnt: (1)	\$2,000.00
Total Appraised Value		\$66,198.00

Just Value	\$66,198.00
Class Value	\$0.00
Assessed Value	\$66,198.00
Exempt Value	(code: HX) \$25,000.00
Total Taxable Value	\$41,198.00

Sales History

Sale Date	Book/Page	Inst. Type	Sale VImp	Sale Qual	Sale RCode	Sale Price
5/5/1999	880/604	WD	V	U	03	\$32,100.00
5/9/1997	839/852	WD	V	U	03	\$20,200.00
12/17/1993	784/1706	WD	V	U	12	\$22,500.00

Building Characteristics

Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
1	SFR MANUF (000200)	2001	Vinyl Side (31)	1056	1056	\$28,982.00
Note: All S.F. calculations are based on exterior building dimensions.						

Extra Features & Out Buildings

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
0040	BARN,POLE	2000	\$2,000.00	1.000	0 x 0 x 0	(.00)

Land Breakdown

Lnd Code	Desc	Units	Adjustments	Eff Rate	Lnd Value
000200	MBL HM (MKT)	15.030 AC	1.00/1.00/.85/1.00	\$2,209.98	\$33,216.00
009945	WELL/SEPT (MKT)	1.000 UT - (.000AC)	1.00/1.00/1.00/1.00	\$2,000.00	\$2,000.00



Columbia County Property Appraiser

J. Doyle Crews, CFA - Lake City, Florida - 386-758-1083

PARCEL: 15-6S-17-09678-005 HX - MOBILE HOM (000200)

COMM SW COR OF NW1/4, RUN E 1477.84 FT POB N 708.94 FT RUN E 1008.66 FT TO W R/W

Name:	GIANAKAS CHRIS & SHERRY	LandVal	\$35,216.00
Site:	RT 2 BX 34252	BldgVal	\$28,982.00
Mail:	RT 2 BX 34252 (S US 41)	ApprVal	\$66,198.00
	LAKE CITY, FL 32024	JustVal	\$66,198.00
Sales	5/5/1999 \$32,100.00V / U	Assd	\$66,198.00
Info	5/9/1997 \$20,200.00V / U	Exmpt	\$25,000.00
	12/17/1993 \$22,500.00V / U	Taxable	\$41,198.00

0 170 340 510 ft



This information, GIS Map Updated: 06/21/2004, was derived from data which was compiled by the Columbia County Property Appraiser Office solely for the governmental purpose of property assessment. This information should not be relied upon by anyone as a determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data herein, its use, or its interpretation. Although it is periodically updated, this information may not reflect the data currently on file in the Property Appraiser's office. The assessed values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.



APPROXIMATE SCALE IN FEET

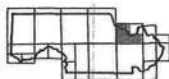
NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

COLUMBIA
COUNTY,
FLORIDA
(UNINCORPORATED AREAS)

PANEL 250 OF 290

PANEL LOCATION



COMMUNITY-PANEL NUMBER

120070 0250 B

EFFECTIVE DATE:

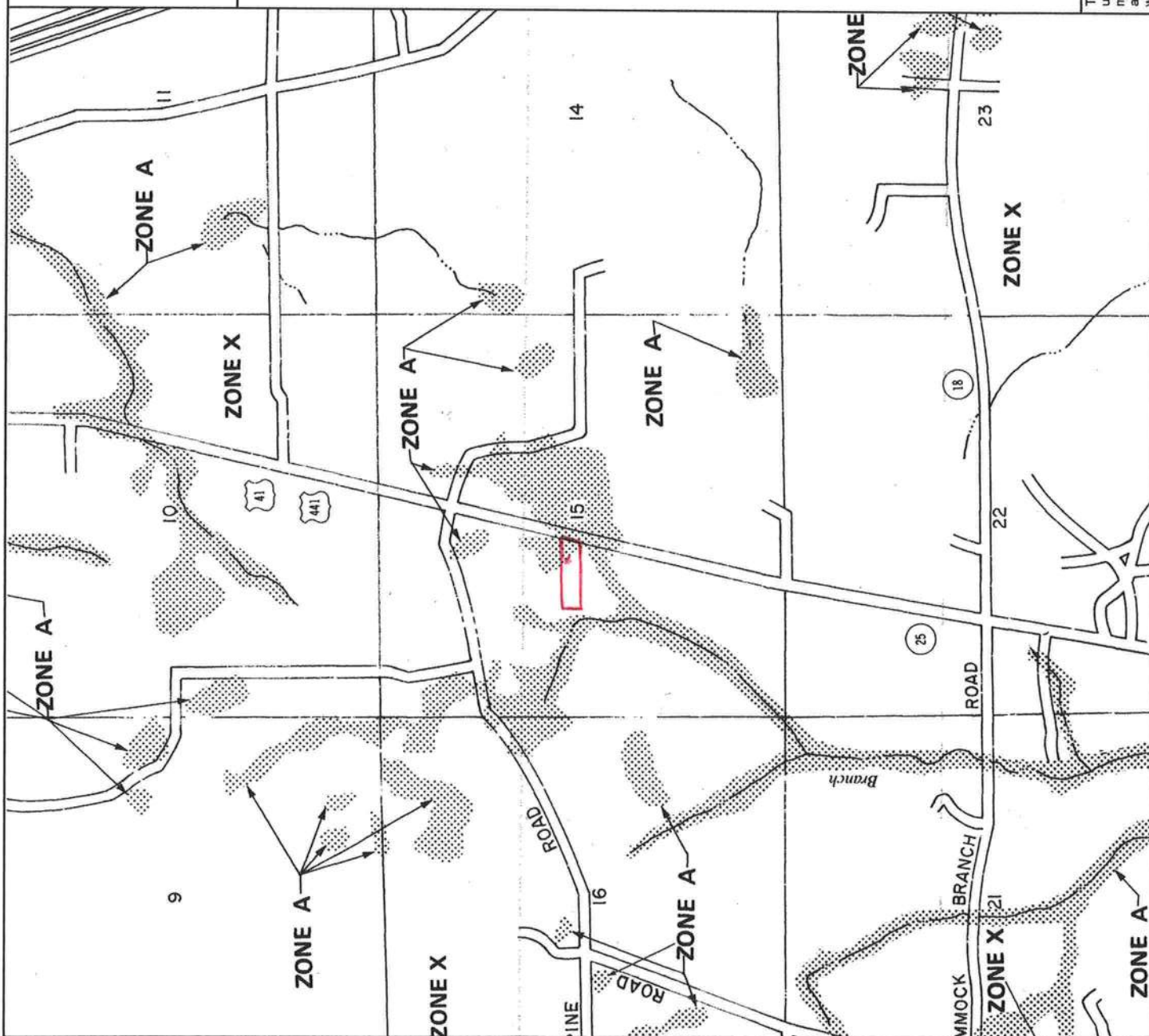
JANUARY 6, 1988



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT Version 1.0. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. Further information about National Flood Insurance Program flood hazard maps is available at www.fema.gov/nitfsd.

Print Date: 8/30/2004 (printed at scale and type A)



CAM500001
8/17/2004 11:57

CamaUSA Appraisal System
Search by Owner Names

Columbia County
Year. . 2004

Select	Name		
.....	GIANAKAS CHRIS & SHERRY RT 2 BX 34252	R 15-6S-17-09678-005 HX	000200
..... D	GIANAKAS CHRIS & SHERRY AMBERWOOD S/D UNREC	R 15-6S-17-09678-009	009900
..... D	GIANAKAS CHRIS & SHERRY AMBERWOOD S/D UNREC	R 15-6S-17-09678-010	000000
.....	*GIANAKAS SHERRY RT 2 BX 34252	R 15-6S-17-09678-005 HX	000200
.....	GIANG LAM C 301 GOLF CLUB AVE	R 34-3S-17-07108-001 HX	000100
.....	*GIANIKAS ERIN F *ADDR & HX NOTE	R 27-7S-17-10055-108 HX	000100
.....	GIANIKAS MICHAEL P & ERIN F *ADDR & HX NOTE	R 27-7S-17-10055-108 HX	000100
.....	GIANIKAS MICHAEL P & ERIN F -	R 27-7S-17-10055-107	000000
.....	GIARDINA ANTHONY V JR 738 HENDERSON TER SW FORT WHITE	R 16-6S-16-03832-207 HX	000200

F1=Help F3=Exit F10=Goto F12=Cancel F21=CmdLine PGUP/PGDN



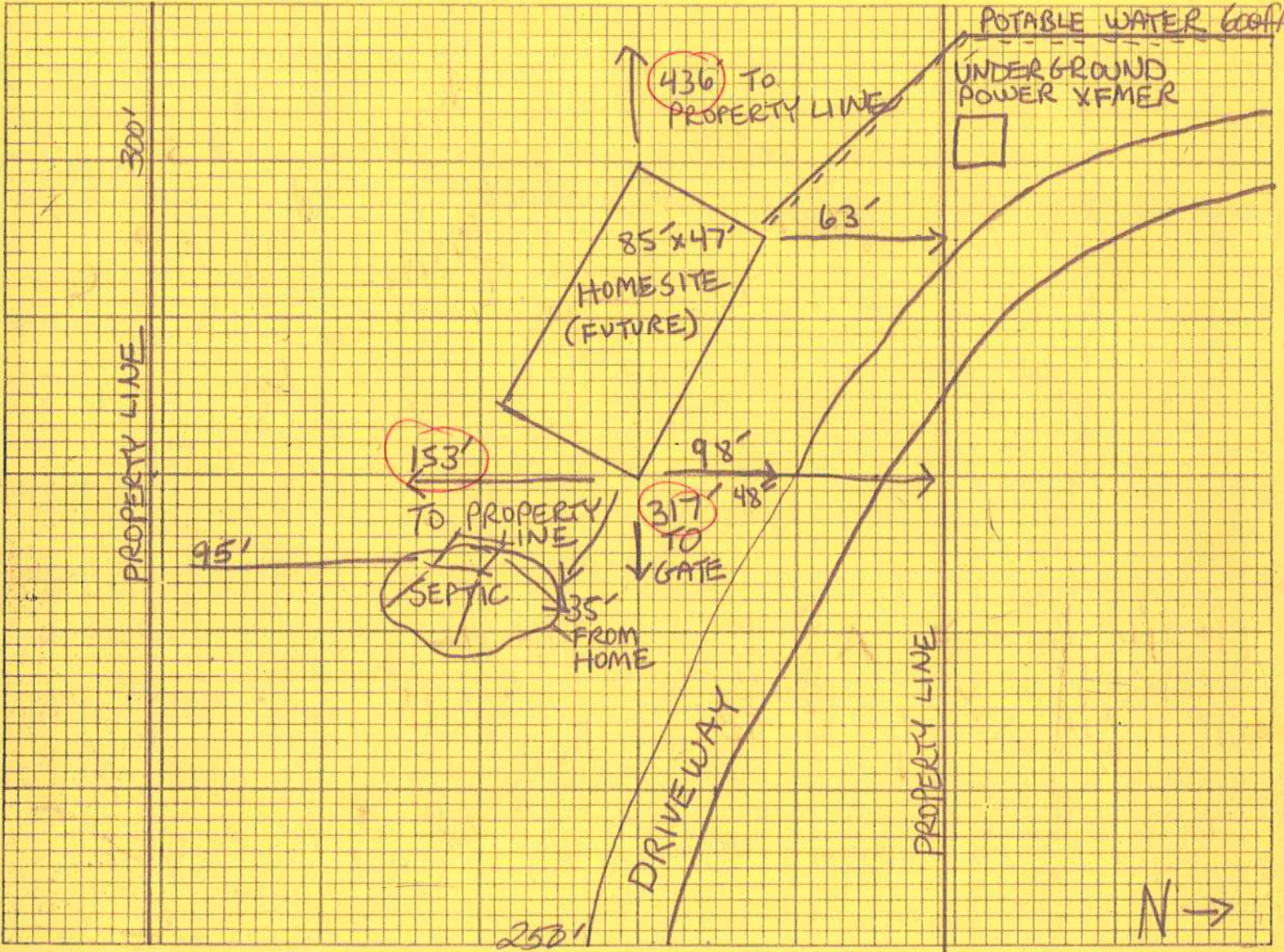
STATE OF FLORIDA
DEPARTMENT OF HEALTH

APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number 04-0732V

PART II - SITE PLAN

Scale: Each block represents 5 feet and 1 inch = 50 feet.



Notes: WELL IS ON PARCEL #8 (PARENTS PROPERTY) NORTH
PROPERTY IS 251' x 898' x 258' x 838' □

portion of 5 Acre lot

* Want 1200 septic tank *

Site Plan submitted by:

Plan Approved ☒

By

Signature

Not Approved

Title

Date

County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT



Cal-Tech Testing, Inc.

- Engineering
- Geotechnical
- Environmental

LABORATORIES

P.O. Box 1625 • Lake City, FL 32056-1625
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32257

Tel. (386) 755-3633 • Fax (386) 752-5456
Tel. (904) 262-4046 • Fax (904) 262-4047

22335

September 24, 2004

Julie Murphy
281 S. W. Generations Loop
Lake City, Florida 32024

Reference: Proposed Murphy Residence
281 S. W. Generations Loop
Lake City, Columbia County, Florida
Cal-Tech Project No. 04-455

Dear Ms. Murphy,

Cal-Tech Testing, Inc. has completed the subsurface investigation and evaluation of a proposed residential building site at the referenced location. Our work was authorized by you.

The purposes of our investigation were to evaluate the existing subgrade soils for an allowable bearing pressure of 2,000 pounds per square foot and to provide recommendations as appropriate.

Site Investigation

The site was investigated by performing two (2) Standard Penetration Test borings advanced to depths of 7 feet. The borings were performed at the approximate locations indicated on the attached Location Plan. These locations were selected on site by our personnel, and the building limits were staked.

The Standard Penetration Test (ASTM D-1586) is performed by driving a standard split-barrel sampler into the soil by blows of a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler 1 foot, after seating 6 inches, is designated the penetration resistance, or N-value; this value is an index to soil density or consistency.

Findings

The soil borings generally encountered three soil strata. The first layer consists of about 4.5 feet of loose to medium dense, tannish gray sand (SP) or sand with silt (SP/SM). We believe most of this layer is fill. The N-values of this layer range from 6 to 13 blows per foot.

The second layer consists of about 1.0 feet of loose, tannish gray sand with traces of clay (SP). The N-values of this layer are on the order of 6 blows per foot. The third layer consists of an undetermined thickness of loose, gray and orange, clayey sand (SC). The N-values of this layer are on the order of 6 to 7 blows per foot.

Groundwater was not encountered at the time of our investigation; however, we believe the wet season water table will occur as perched ground water at a depth of about 4.5 feet. For a more detailed description of the subsurface conditions encountered, please refer to the attached Boring Logs.

Discussion

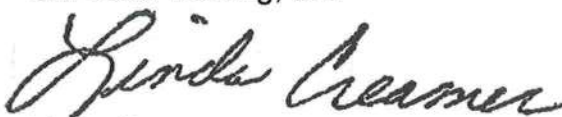
We have performed a bearing capacity analysis for the immediate bearing soils within the building site and have assumed a conventional wall footing having a width of 18 inches. Additionally, we have assumed the bottom of this foundation to be embedded 14 inches below the finished surface grade. For this foundation and the site soils as encountered, we obtained an allowable bearing capacity of 2,000 pounds per square foot with a factor of safety of about 1.7 against a bearing capacity failure. It is therefore our opinion the subgrade soils in the proposed building area are suitable for shallow foundations and an allowable bearing capacity of 2,000 pounds per square foot.

We recommend the foundation and floor slab areas be proof-rolled using heavy, rubber-tired equipment. Additionally, we recommend foundation areas be proof-compacted to a minimum of 95% of the Modified Proctor maximum dry density to a depth of 2 feet below the bottoms of the foundations. Replacement soils, if required, should consist of clean, fine sand containing less than 10% passing the No. 200 sieve. This soil should be placed in maximum 12-inch loose lifts, and each lift should be proof-compacted to a minimum of 95% of the Modified Proctor maximum dry density.

Our evaluation and recommendations are based upon subsurface conditions encountered at this site and as presented within this report. However, subsurface conditions may exist that differ substantially from our findings. Should substantially different site conditions be encountered, we request that we be notified such that these conditions may be evaluated and recommendations can be provided as appropriate.

We appreciate the opportunity to be of service on this project and look forward to a continued association. Please do not hesitate to contact us should you have questions concerning this report or if we may be of further assistance.

Respectfully submitted,
Cal-Tech Testing, Inc.



Linda Creamer
President / CEO



John C. Dorman, Jr., Ph.D., P.E.
Geotechnical Engineer

9/24/04
52612

B-1

Water Table: N/A

Soil

Depth (ft)	N-value	Description
0		Tannish Gray SAND (SP)
9		Loose, Dark Tannish Gray SAND (SP)
6		
5	6	Loose, Tannish Gray SAND, Trace Clay (SP)
7		Loose, Gray and Orange, SLIGHTLY CLAYEY SAND (SC)

Wet Season Water Table: 4.5 ft.

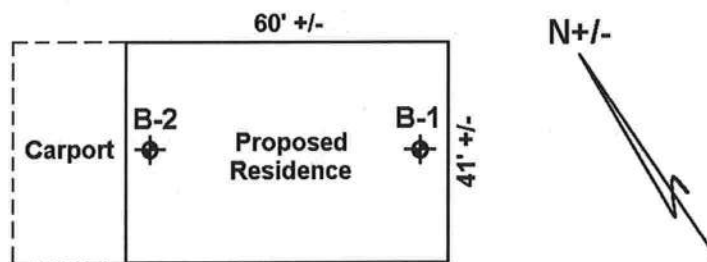
B-2

Water Table: N/A

Soil

Depth (ft)	N-value	Description
0		Medium Dense, Dark Tannish Gray SAND (SP)
13		
6		Loose, Dark Gray SAND with SILT (SP/SM)
5	6	Loose, Tannish Gray SAND, Trace Clay (SP)
6		Loose, Gray and Orange, SLIGHTLY CLAYEY SAND (SC)

Wet Season Water Table: 4.5 ft.



Not to Scale

**Boring Logs and Location Plan: Murphy Residence
S.W. Generations Loop
Columbia County, Florida**



Cal-Tech Testing, Inc.

- Engineering
- Geotechnical
- Environmental

LABORATORIES

P.O. Box 1625 • Lake City, FL 32056-1625
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32257

Tel. (386) 755-3633 • Fax (386) 752-5456
Tel. (904) 262-4046 • Fax (904) 262-4047

JOB NO.: 04-455

DATE TESTED: 10/08/04

DATE REPORTED: 10/12/04

REPORT OF IN-PLACE DENSITY TEST

PROJECT:	Julie Murphy, 281 S.W. Generations Loop, Lake City, FL 32024
CLIENT:	Julie Murphy Residence
GENERAL CONTRACTOR:	Julie Murphy
EARTHWORK CONTRACTOR:	Julie Murphy
INSPECTOR:	Jody Beggs
ASTM METHOD	SOIL USE
(D-2922) Nuclear	Building Fill/Trench Backfill
SPECIFICATION REQUIREMENTS: 95%	

TEST NO.	TEST LOCATION	TEST DEPTH	WET DENSITY (lb/ft ³)	MOISTURE PERCENT	DRY DENSITY (lb/ft ³)	PROCTOR TEST NO.	PROCTOR VALUE	% MAXIMUM DENSITY
#7 Footing								
1	5' S of E Corner	0-12"	118.0	13.4	104.1	2	106.7	97.5%
2	10 N of W Corner	0-12"	117.8	15.4	102.1	2	106.7	95.7%
3	25' S of W Corner	0-12"	118.0	15.7	102.0	2	106.7	95.6%
Building Fill								
4	E Corner of Pad	0-12"	116.2	10.1	105.5	2	106.7	98.9%
5	Center of Pad	0-12"	117.0	8.4	107.9	2	106.7	101.2%
6	W Corner of Pad	0-12"	114.4	8.9	105.1	2	106.7	98.5%

REMARKS: The Above Tests Meet Specification Requirements.

PROCTORS				
PROCTOR NO.	SOIL DESCRIPTION	MAXIMUM DRY UNIT WEIGHT (lb/ft ³)	OPT. MOIST.	TYPE
2	(Job #04-189) Grayish Tan Silty Fine Sand	106.7	9.4	MODIFIED (ASTM D-1557)

Respectfully Submitted,
CAL-TECH TESTING, INC.

Linda M. Creamer
President - CEO

Reviewed By:

Date: 10/12/04
Florida Registration No: 52612

The test results presented in this report are specific only to the samples tested at the time of testing. The tests were performed in accordance with generally accepted methods and standards. Since material conditions can vary between test locations and change with time, sound judgement should be exercised with regard to the use and interpretation of the data.



Cal-Tech Testing, Inc.

- Engineering
- Geotechnical
- Environmental

LABORATORIES

P.O. Box 1625 • Lake City, FL 32056-1625
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32257

Tel. (386) 755-3633 • Fax (386) 752-5456
Tel. (904) 262-4046 • Fax (904) 262-4047

22335

September 24, 2004

Julie Murphy
281 S. W. Generations Loop
Lake City, Florida 32024

Reference: Proposed Murphy Residence
281 S. W. Generations Loop
Lake City, Columbia County, Florida
Cal-Tech Project No. 04-455

Dear Ms. Murphy,

Cal-Tech Testing, Inc. has completed the subsurface investigation and evaluation of a proposed residential building site at the referenced location. Our work was authorized by you.

The purposes of our investigation were to evaluate the existing subgrade soils for an allowable bearing pressure of 2,000 pounds per square foot and to provide recommendations as appropriate.

Site Investigation

The site was investigated by performing two (2) Standard Penetration Test borings advanced to depths of 7 feet. The borings were performed at the approximate locations indicated on the attached Location Plan. These locations were selected on site by our personnel, and the building limits were staked.

The Standard Penetration Test (ASTM D-1586) is performed by driving a standard split-barrel sampler into the soil by blows of a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler 1 foot, after seating 6 inches, is designated the penetration resistance, or N-value; this value is an index to soil density or consistency.

Findings

The soil borings generally encountered three soil strata. The first layer consists of about 4.5 feet of loose to medium dense, tannish gray sand (SP) or sand with silt (SP/SM). We believe most of this layer is fill. The N-values of this layer range from 6 to 13 blows per foot.

The second layer consists of about 1.0 feet of loose, tannish gray sand with traces of clay (SP). The N-values of this layer are on the order of 6 blows per foot. The third layer consists of an undetermined thickness of loose, gray and orange, clayey sand (SC). The N-values of this layer are on the order of 6 to 7 blows per foot.

Groundwater was not encountered at the time of our investigation; however, we believe the wet season water table will occur as perched ground water at a depth of about 4.5 feet. For a more detailed description of the subsurface conditions encountered, please refer to the attached Boring Logs.

Discussion

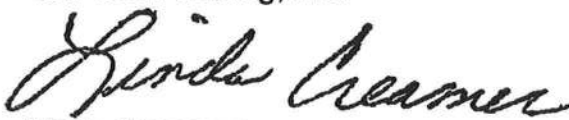
We have performed a bearing capacity analysis for the immediate bearing soils within the building site and have assumed a conventional wall footing having a width of 18 inches. Additionally, we have assumed the bottom of this foundation to be embedded 14 inches below the finished surface grade. For this foundation and the site soils as encountered, we obtained an allowable bearing capacity of 2,000 pounds per square foot with a factor of safety of about 1.7 against a bearing capacity failure. It is therefore our opinion the subgrade soils in the proposed building area are suitable for shallow foundations and an allowable bearing capacity of 2,000 pounds per square foot.

We recommend the foundation and floor slab areas be proof-rolled using heavy, rubber-tired equipment. Additionally, we recommend foundation areas be proof-compacted to a minimum of 95% of the Modified Proctor maximum dry density to a depth of 2 feet below the bottoms of the foundations. Replacement soils, if required, should consist of clean, fine sand containing less than 10% passing the No. 200 sieve. This soil should be placed in maximum 12-inch loose lifts, and each lift should be proof-compacted to a minimum of 95% of the Modified Proctor maximum dry density.

Our evaluation and recommendations are based upon subsurface conditions encountered at this site and as presented within this report. However, subsurface conditions may exist that differ substantially from our findings. Should substantially different site conditions be encountered, we request that we be notified such that these conditions may be evaluated and recommendations can be provided as appropriate.

We appreciate the opportunity to be of service on this project and look forward to a continued association. Please do not hesitate to contact us should you have questions concerning this report or if we may be of further assistance.

Respectfully submitted,
Cal-Tech Testing, Inc.



Linda Creamer
President / CEO



John C. Dorman, Jr., Ph.D., P.E.
Geotechnical Engineer

9/29/04
52612

B-1

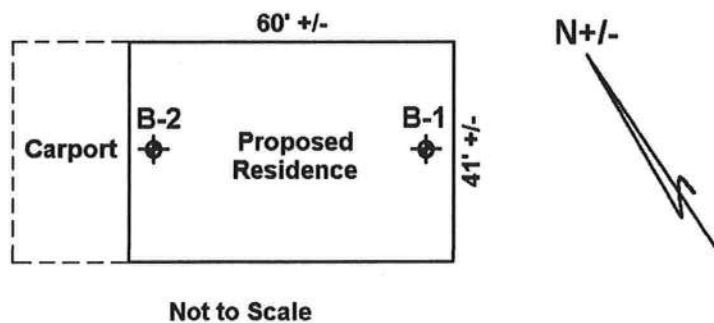
Water Table: N/A		Soil
Depth (ft)	N-value	Description
0		Tannish Gray SAND (SP)
9		Loose, Dark Tannish Gray SAND (SP)
6		
5	6	Loose, Tannish Gray SAND, Trace Clay (SP)
7		Loose, Gray and Orange, SLIGHTLY CLAYEY SAND (SC)

Wet Season Water Table: 4.5 ft.

B-2

Water Table: N/A		Soil
Depth (ft)	N-value	Description
0		Medium Dense, Dark Tannish Gray SAND (SP)
13		
6		Loose, Dark Gray SAND with SILT (SP/SM)
5	6	Loose, Tannish Gray SAND, Trace Clay (SP)
6		Loose, Gray and Orange, SLIGHTLY CLAYEY SAND (SC)

Wet Season Water Table: 4.5 ft.



Boring Logs and Location Plan: Murphy Residence
S.W. Generations Loop
Columbia County, Florida



Cal-Tech Testing, Inc.

- Engineering
- Geotechnical
- Environmental

LABORATORIES

P.O. Box 1625 • Lake City, FL 32056-1625
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32257

Tel. (386) 755-3633 • Fax (386) 752-5456
Tel. (904) 262-4046 • Fax (904) 262-4047

JOB NO.: 04-455

DATE TESTED: 10/08/04

DATE REPORTED: 10/12/04

REPORT OF IN-PLACE DENSITY TEST

PROJECT:	Julie Murphy, 281 S.W. Generations Loop, Lake City, FL 32024	
CLIENT:	Julie Murphy Residence	
GENERAL CONTRACTOR:	Julie Murphy	
EARTHWORK CONTRACTOR:	Julie Murphy	
INSPECTOR:	Jody Beggs	
ASTM METHOD		SOIL USE
(D-2922) Nuclear ▼		Building Fill/Trench Backfill ▼
SPECIFICATION REQUIREMENTS: 95%		

TEST NO.	TEST LOCATION	TEST DEPTH	WET DENSITY (lb/ft ³)	MOISTURE PERCENT	DRY DENSITY (lb/ft ³)	PROCTOR TEST NO.	PROCTOR VALUE	% MAXIMUM DENSITY
#7 Footing								
1	5' S of E Corner	0-12"	118.0	13.4	104.1	2	106.7	97.5%
2	10 N of W Corner	0-12"	117.8	15.4	102.1	2	106.7	95.7%
3	25' S of W Corner	0-12"	118.0	15.7	102.0	2	106.7	95.6%
Building Fill								
4	E Corner of Pad	0-12"	116.2	10.1	105.5	2	106.7	98.9%
5	Center of Pad	0-12"	117.0	8.4	107.9	2	106.7	101.2%
6	W Corner of Pad	0-12"	114.4	8.9	105.1	2	106.7	98.5%

REMARKS: The Above Tests Meet Specification Requirements. ▼

PROCTORS				
PROCTOR NO.	SOIL DESCRIPTION	MAXIMUM DRY UNIT WEIGHT (lb/ft ³)	OPT. MOIST.	TYPE
2	(Job #04-189) Grayish Tan Silty Fine Sand	106.7	9.4	MODIFIED (ASTM D-1557) ▼

Respectfully Submitted,
CAL-TECH TESTING, INC.

Linda M. Creamer
President - CEO

Reviewed By:

Date: 10/12/04

Florida Registration No: 52612

The test results presented in this report are specific only to the samples tested at the time of testing. The tests were performed in accordance with generally accepted methods and standards. Since material conditions can vary between test locations and change with time, sound judgement should be exercised with regard to the use and interpretation of the data.

CAL-TECH TESTING, INC.

FACSIMILE TRANSMITTAL SHEET

TO:

Permit #000022335

FROM:

Susie

COMPANY:

Co. Bldg

DATE:

10/12/04

FAX NUMBER:

758-2160

TOTAL NO. OF PAGES INCLUDING COVER:

PHONE NUMBER:

REFERENCE:

NOTES/COMMENTS:

Density Test:

Julie Murphy Residence

P.O. BOX 1625 LAKE CITY, FL 32056

PHONE • 386-755-3633

FAX • 386-752-5456



Cal-Tech Testing, Inc.

- Engineering
- Geotechnical
- Environmental

P.O. Box 1825 • Lake City, FL 32056-1825
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32257

Tel. (386) 755-3833 • Fax (386) 752-6456
Tel. (904) 262-4046 • Fax (904) 262-4047

JOB NO.: 04-455

DATE TESTED: 10/08/04

DATE REPORTED: 10/12/04

REPORT OF IN-PLACE DENSITY TEST

PROJECT:	Julie Murphy, 281 S.W. Generations Loop, Lake City, FL 32024
CLIENT:	Julie Murphy Residence
GENERAL CONTRACTOR:	Julie Murphy
EARTHWORK CONTRACTOR:	Julie Murphy
INSPECTOR:	Jody Beggs
ASTM METHOD	SOIL USE
(D-2922) Nuclear	Building Fill/Trench Backfill
SPECIFICATION REQUIREMENTS: 95%	

TEST NO.	TEST LOCATION	TEST DEPTH	WET DENSITY (lb/ft ³)	MOISTURE PERCENT	DRY DENSITY (lb/ft ³)	PROCTOR TEST NO.	PROCTOR VALUE	% MAXIMUM DENSITY
#7 Footing								
1	5' S of E Corner	0-12"	118.0	13.4	104.1	2	106.7	97.5%
2	10 N of W Corner	0-12"	117.8	15.4	102.1	2	106.7	95.7%
3	25' S of W Corner	0-12"	118.0	15.7	102.0	2	106.7	95.6%
Building Fill								
4	E Corner of Pad	0-12"	116.2	10.1	105.5	2	106.7	98.9%
5	Center of Pad	0-12"	117.0	8.4	107.9	2	106.7	101.2%
6	W Corner of Pad	0-12"	114.4	8.9	105.1	2	106.7	98.5%

REMARKS: The Above Tests Meet Specification Requirements.

PROCTORS				
PROCTOR NO.	SOIL DESCRIPTION	MAXIMUM DRY UNIT WEIGHT (lb/ft ³)	OPT. MOIST.	TYPE
2	(Job #04-189) Grayish Tan Silty Fine Sand	106.7	9.4	MODIFIED (ASTM D-1557)

Respectfully Submitted,
CAL-TECH TESTING, INC.

Linda M. Creamer

Linda M. Creamer
President - CEO

Reviewed By:

[Signature]

Date: 10/12/04

Florida Registration No: 52612

The test results presented in this report are specific only to the samples tested at the time of testing. The tests were performed in accordance with generally accepted methods and standards. Since material conditions can vary between test locations and change with time, sound judgement should be exercised with regard to the use and interpretation of the data.

"Excellence in Engineering & Geoscience"



Cal-Tech Testing, Inc.

- Engineering
- Geotechnical
- Environmental

P.O. Box 1625 • Lake City, FL 32056-1625
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32267

Tel. (386) 755-3633 • Fax (386) 752-5456
Tel. (904) 282-4046 • Fax (904) 282-4047

JOB NO.: 04-455

DATE TESTED: 10/08/04

DATE REPORTED: 10/12/04

REPORT OF IN-PLACE DENSITY TEST

PROJECT:	Julie Murphy, 281 S.W. Generations Loop, Lake City, FL 32024	
CLIENT:	Julie Murphy Residence	
GENERAL CONTRACTOR:	Julie Murphy	
EARTHWORK CONTRACTOR:	Julie Murphy	
INSPECTOR:	Jody Beggs	
ASTM METHOD		SOIL USE
(D-2922) Nuclear		Building Fill/Trench Backfill
SPECIFICATION REQUIREMENTS: 95%		

TEST NO.	TEST LOCATION	TEST DEPTH	WET DENSITY (lb/ft ³)	MOISTURE PERCENT	DRY DENSITY (lb/ft ³)	PROCTOR TEST NO.	PROCTOR VALUE	% MAXIMUM DENSITY
#7 Footing								
1	5' S of E Corner	0-12"	118.0	13.4	104.1	2	106.7	97.5%
2	10 N of W Corner	0-12"	117.8	15.4	102.1	2	106.7	95.7%
3	25' S of W Corner	0-12"	118.0	15.7	102.0	2	106.7	95.6%
Building Fill								
4	E Corner of Pad	0-12"	118.2	10.1	105.5	2	106.7	98.9%
5	Center of Pad	0-12"	117.0	8.4	107.9	2	106.7	101.2%
6	W Corner of Pad	0-12"	114.4	8.9	105.1	2	106.7	98.5%

REMARKS: The Above Tests Meet Specification Requirements.

PROCTORS				
PROCTOR NO.	SOIL DESCRIPTION	MAXIMUM DRY UNIT WEIGHT (lb/ft ³)	OPT. MOIST.	TYPE
2	(Job #04-189) Grayish Tan Silty Fine Sand	106.7	9.4	MODIFIED (ASTM D-1557)

Respectfully Submitted,
CAL-TECH TESTING, INC.

Linda M. Creamer

Linda M. Creamer
President - CEO

Reviewed By:

[Signature]

Date: 10/12/04

Florida Registration No: 52812

The test results presented in this report are specific only to the samples tested at the time of testing. The tests were performed in accordance with generally accepted methods and standards. Since material conditions can vary between test locations and change with time, sound judgement should be exercised with regard to the use and interpretation of the data.

"Excellence in Engineering & Geoscience"

CAL-TECH TESTING, INC.

FACSIMILE TRANSMITTAL SHEET

TO:

Permit #000022335

FROM:

Susie

COMPANY:

Co. Bldg

DATE:

10/12/04

FAX NUMBER:

758-2160

TOTAL NO. OF PAGES INCLUDING COVER:

PHONE NUMBER:

REFERENCE:

NOTES/COMMENTS:

Density Test:

Julie Murphy Residence

P.O. BOX 1625 LAKE CITY, FL 32056

PHONE • 386-755-3633

FAX • 386-752-5456

COLUMBIA COUNTY OFFICE 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 15-6S-17-09678-010

Building permit No. 000022335

Use Classification SFD & UTILITY

Fire: 22.68

Permit Holder DAVID & JULIE MURPHY

Waste: 49.00

Owner of Building DAVID & JULIE MURPHY

Total: 71.68

Location: 281 SW GENERATIONS LOOP, AMBERWOOD S/D LOT 10

Date: 05/05/2005



Darryl Dicks

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

Notice of Treatment

Applicator Florida Pest Control & Chemical Co.

Address _____

City _____

Phone _____

Site Location Subdivision _____

Lot# _____

Block# _____

Permit# _____

22335

Address _____

AREAS TREATED

**Print Technician's
Name**

Area Treated

Date

Time

Gal.

Main Body

Patio/s #

Stoop/s #

Porch/s #

Brick Veneer

Extension Walls

A/C Pad

Walk/s #

Exterior of Foundation

Driveway Apron

Out Building

Tub Trap/s

(Other)

Murphy Job

Name of Product Applied Termidor

%

Remarks _____

Notice of Treatment

11196

Applicator Florida Pest Control & Chemical Co.

Address 536 SE BAYA DR.

City Lake City

Phone (386) 752-1703

Site Location Subdivision Amberwood

Lot# 10 Block# Permit# 000022335

Address 281 SW Generations Loop Lake City

AREAS TREATED

Area Treated	Date	Time	Gal.	Print Technician's Name
Main Body				
Patio/s #				
Stoop/s #				
Porch/s #				
Brick Veneer				
Extension Walls				
A/C Pad				
Walk/s #				
Exterior of Foundation	<u>05-02-05</u>	<u>935</u>	<u>85</u>	<u>RD Crawford</u>
Driveway Apron				
Out Building				
Tub Trap/s				
(Other)				

Name of Product Applied Termidor WG 80 .06 %

Remarks

Applicator - White • Permit File - Canary • Permit Holder - Pink

©

Notice of Treatment

Applicator Florida Pest Control & Chemical Co. 11196

Address BAYA AVE

City Lake City Phone 7521703

Site Location Subdivision Amberwood

Lot# 10 Block# 22335 Permit# 22335

Address 281 SW Generations Loop

AREAS TREATED

Area Treated	Date	Time	Gal.	Print Technician's Name
Main Body	10/9/04	1000	231	F254
Patio/s #				
Stoop/s #				
Porch/s #				
Brick Veneer				
Extension Walls				
A/C Pad				
Walk/s #				
Exterior of Foundation				
Driveway Apron				
Out Building				
Tub Trap/s				
(Other)				

Name of Product Applied TERMINATOR 06 %

Remarks Exterior not completed

PROJECT NAME: AND ADDRESS:	MURPHY JOB	BUILDER: DAVID & JULIE MURPHY	PERMITTING OFFICE: COLUMBIA	CLIMATE ZONE: 1 ☐ 2 ☐ 3 ☒
	OWNER: DAVID & JULIE MURPHY	PERMIT NO.: 22335	JURISDICTION NO.: 221000	

1. New construction or addition
2. Single family detached or Multifamily attached
3. If Multifamily—No. of units covered by this submission
4. Is this a worst case? (yes / no)
5. Conditioned floor area (sq. ft.)
6. Predominant eave overhang (ft.)
7. Glass type and area:
 - a. Clear glass
 - b. Tint, film or solar screen
8. Floor type and insulation:
 - a. Slab-on-grade (R-value + perimeter)
 - b. Wood, raised (R-value + sq. ft.)
 - c. Concrete, raised (R-value)
9. Net Wall type, area and insulation:
 - a. Exterior:
 1. Concrete block (Insulation R-value)
 2. Wood frame (Insulation R-value)
 3. Steel frame (Insulation R-value)
 4. Log (Insulation R-value)
 5. Other: _____
 - b. Adjacent:
 1. Concrete block (Insulation R-value)
 2. Wood frame (Insulation R-value)
 3. Steel frame (Insulation R-value)
 4. Log (Insulation R-value)
10. Ceiling type, area and insulation:
 - a. Under attic (Insulation R-value)
 - b. Single assembly (Insulation R-value)
 - c. Radiant barrier, IRCC or white roof installed?
11. Air distribution system:
 - a. Ducts (Insulation + Location)
 - b. Air Handler (Location)
12. Cooling system:
(Types: central-split, central-single pkg., room unit, PTAC., gas, none)
13. Heating system:
(Types: heat pump, elec. strip, nat. gas, L.P. gas, gas h.p., room or PTAC, none)
14. Hot water system:
(Types: elec., natural gas, solar, L.P. gas, none)
15. Hot Water Credits:
 - a. Heat Recovery (HR)
 - b. Dedicated Heat Pump (DHP)
 - c. Solar
16. HVAC Credits
(Use: CF-Ceiling Fan, CV-Cross vent, PT-Programmable thermostat, HF-Whole house fan, MZ-Multizone)
17. COMPLIANCE STATUS: (PASS if As-Built Pts. are less than Base Pts.)
 - a. Total As-Built points
 - b. Total Base points

Please Type		CK
1.	NC	☒
2.	SP	☒
3.	—	☒
4.	NO	☒
5.	2292 sq. ft.	☒
6.	2 ft.	☒
Single Pane Double Pane		
7a.	0 sq. ft. 54 sq. ft.	☒
7b.	0 sq. ft. 169 sq. ft.	☒
8a.	R= 0, 212 l. ft.	☒
8b.	R= —, — sq. ft.	☒
8c.	R= —, — sq. ft.	☒
9a-1	R= 5, 1637 sq. ft.	☒
9a-2	R= —, — sq. ft.	☒
9a-3	R= —, — sq. ft.	☒
9a-4	R= —, — sq. ft.	☒
9b-1	R= —, — sq. ft.	☒
9b-2	R= —, — sq. ft.	☒
9b-3	R= —, — sq. ft.	☒
9b-4	R= —, — sq. ft.	☒
10a.	R= 30, 2292 sq. ft.	☒
10b.	R= —, — sq. ft.	☒
10c.	NO	☒
11a.	R= 6, uncond. (cond/uncond.)	☒
11b.	conditioned (cond/uncond.)	☒
12a.	Type: Central-single pkg	☒
12b.	SEER/EER/COP: 12	☒
12c.	Capacity: 40,000 BTU	☒
13a.	Type: heat pump	☒
13b.	HSPF/COP/AFUE: 8	☒
13c.	Capacity: 39,000 BTU	☒
14a.	Type: Electric	☒
14b.	EF: .84	☒
15a.	Yes	☒
15b.	—	☒
15c.	—	☒
16.	CF, CV	☒
17.	PASS	☒
17a.	25204.76	☒
17b.	48,141.89	☒

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

PREPARED BY: David Murphy DATE: 9-22-04
I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER AGENT: David Murphy DATE: 9-22-04

Review of 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 in accordance with Section 553.908, F.S.

BUILDING OFFICIAL: _____
DATE: _____

CLIMATE ZONES 1 2 3

$$\text{OVERHANG RATIO} = \frac{\text{OH LENGTH}}{\text{OH HEIGHT}}$$

AS-BUILT GLASS SUBTOTAL	4978.938
-------------------------------	----------

COMPONENT DESCRIPTION	AREA	x SUMMER POINT, MULT. = (6A-2 THRU 6A-6)	AS-BUILT SUMMER POINTS
Ext. Block	1637	1.0	1637

Ext. Insulated	119	4.1	487.9

Under Attack	2292	1.73	3965.16
RBS/IRCC/white roof ³		x	

AS-BUILT CEILING AREA EQUALS ACTUAL CEILING SQUARE FOOTAGE

SLAB R=Ø	212	-41,2	-8734,40

	2292	10.21	23401.32
--	------	-------	----------

OF CONDITIONED SPACE.

TOTAL COMPONENT AS-BUILT SUMMER POINTS	25735.918
--	-----------

TOTAL AS-BUILT SUM. PTS.	x	As-Built DM (6A-8)	x	As-Built DSM (6A-20)	x	As-Built AHU (6A-7)	x	As-Built CSM (6A-9)	x	As-Built CCM (6A-19)	=	COOLING POINTS
25735.92		1.090		1.15 or 1.0		.91		.28		.95		7808.85

AS-BUILT HOT WATER SYSTEM DESC.	Number of bedrooms	x	As-Built HWM (6A-22)	x	As-Built HWC (6A-23)	=	AS-BUILT HOT WATER POINTS
ELECTRIC	3		2876		.84		7247.52

³MUST MEET CRITERIA OF S. 607.1.A.

SUMMER POINT MULTIPLIERS (SPM)

CLIMATE ZONES 1 2 3

6A-1 SUMMER OVERHANG FACTORS (SOF) FOR SINGLE AND DOUBLE PANE GLASS.

SELECT BY OR	OH Ratio	00-11	12-17	18-26	27-35	36-46	47-57	58-70	71-83	84-118	119-172	173-273	274 & up
	North	1.00	0.993	0.971	0.930	0.888	0.842	0.803	0.766	0.736	0.681	0.634	0.593
	Northeast	1.00	0.996	0.967	0.907	0.845	0.775	0.717	0.662	0.619	0.545	0.487	0.441
	East	1.00	0.994	0.963	0.898	0.827	0.745	0.675	0.609	0.558	0.470	0.405	0.357
	Southeast	1.00	0.998	0.952	0.864	0.777	0.689	0.623	0.566	0.525	0.459	0.413	0.379
	South	1.00	0.989	0.931	0.835	0.751	0.675	0.620	0.575	0.543	0.493	0.458	0.432
	Southwest	1.00	0.998	0.953	0.866	0.779	0.691	0.623	0.565	0.522	0.453	0.404	0.368
	West	1.00	0.994	0.963	0.899	0.828	0.748	0.681	0.617	0.569	0.485	0.422	0.375
	Northwest	1.00	0.996	0.968	0.913	0.858	0.797	0.748	0.702	0.667	0.605	0.556	0.516
	OH Length	0.0'	1.0'	1.5'	2.0'	3.0'	3.5'	4.5'	5.5'	6.5'	9.5'	14.0'	20.0'

6A-2 WALL SUMMER POINT MULTIPLIERS (SPM)

FRAME					CONCRETE BLOCK (NORMAL WT)				FACE BRICK				LOG				
								INTERIOR INSULATION	EXT. INSUL.	R-VALUE	WOOD FR	R-VALUE	BLOCK				
											0-6.9	2.4	0-2.9	1.0			
R-VALUE	WOOD		STEEL		R-VALUE	EXT	ADJ	EXT		7-10.9	.6	3-6.9	.6	R-VALUE	6 INCH	8 INCH	
EXT	ADJ	EXT	ADJ		EXT	ADJ	EXT			11-18.9	.4	7-9.9	.4	0-2.9	EXT	EXT	
0-6.9	5.5	2.2	7.6	2.8	0-2.9	2.2	1.1	2.2		11-18.9	.4	7-9.9	.4	0-2.9	1.5	1.0	
7-10.9	2.1	.8	3.5	1.3	3-4.9	1.3	.8	.8		19-25.9	.2	10 & UP	.2	3-6.9	1.0	.7	
11-12.9	1.7	.7	2.7	1.0	5-6.9	1.0	.7	.5		26 & Up	.1			7 & Up	.8	.6	
13-18.9	1.5	.6	2.5	0.9	7-10.9	.7	.5	.3									
19-25.9	.9	.4	2.2	0.8	11-18.9	.4	.4	0									
26& Up	.6	.2	1.2	0.4	19-25.9	.2	.2										
					26 & Up	.1	.1										

NOTE: SEE SECTION 2.0 OF APPENDIX C FOR MULTIPLIERS OF ENVELOPE COMPONENTS NOT ON THIS FORM.

NOTE: SEE SECTION 2.0 OF APPENDIX C FOR MULTIPLIERS OF ENVELOPE COMPONENTS NOT ON THIS FORM.

6A-3 DOOR SUMMER POINT MULTIPLIERS (SPM)

DOOR TYPE	EXTERIOR	ADJACENT
WOOD	6.1	2.4
INSULATED	4.1	1.6

6A-4 CEILING SUMMER POINT MULTIPLIERS (SPM)

UNDER ATTIC		SINGLE ASSEMBLY		CONCRETE DECK ROOF		
R-VALUE	SPM	R-VALUE	SPM	CEILING TYPE		
19-21.9	2.34	10-10.9	8.49	R-VALUE	EXPOSED	DROPPED
22-25.9	2.11	11-12.9	7.97	10-13.9	9.13	8.47
26-29.9	1.89	13-18.9	7.14	14-20.9	6.80	6.45
30-37.9	1.73	19-25.9	5.64	21 & Up	4.92	4.63
38 & Up	1.52	26-29.9	4.75			
RBS Credit	0.700	30 & Up	4.40			
IRCC Credit	0.849					
White Roof Credit	0.550					

6A-5 FLOOR SUMMER POINT MULTIPLIERS (SPM)

SLAB-ON-GRADE EDGE INSULATION		RAISED CONCRETE		RAISED WOOD		
R-VALUE	SPM	R-VALUE	SPM	POST OR PIER CONSTRUCTION	STEM WALL w/ UNDER FLOOR INSULATION	ADJACENT
0-2.9	-41.2	0-2.9	-.8	R-VALUE	SPM	SPM
3-4.9	-37.2	3-4.9	-1.3	0-6.9	2.80	-4.7
5-6.9	-36.2	5-6.9	-1.3	7-10.9	1.34	-2.3
7 & Up	-35.7	7 & Up	-1.3	11-18.9	1.06	-1.9
				19 & Up	.77	-1.5

6A-6 INFILTRATION & INTERNAL GAINS (SPM)

Air Infiltration	3.44
Internal Gains	+ 6.77
Infiltration/Internal Gains (Combined)	10.21

6A-7 AIR HANDLER MULTIPLIERS (SPM)

Located in garage	1.00
Located in conditioned area	0.91
Located on exterior of building	1.02
Located in attic	1.11

6A-8 DUCT MULTIPLIERS (DM) See Table 6-10 for Code minimums.

SUPPLY DUCTS IN:	DUCT R-Value	RETURN DUCTS IN:				
		Unconditioned space	Attic/ RBS	Attic/ IRCC	Attic/ White roof	Conditioned space
Unconditioned Space	4.2	1.118	1.111	1.112	1.089	1.107
	6.0	1.090	1.084	1.085	1.066	1.081
	8.0	1.071	1.066	1.067	1.051	1.064
Attic/Radiant Barrier (RBS)	4.2	1.072	1.066	---	---	1.061
	6.0	1.056	1.051	---	---	1.047
	8.0	1.045	1.041	---	---	1.037
Attic/Interior Radiation Control Coatings (IRCC)	4.2	1.099	---	1.092	---	1.084
	6.0	1.076	---	1.071	---	1.065
	8.0	1.061	---	1.057	---	1.052
Attic/White Roof	4.2	1.068	---	---	1.096	1.057
	6.0	1.051	---	---	1.071	1.043
	8.0	1.040	---	---	1.055	1.034
Conditioned Space	4.2	1.006	1.005	1.007	1.008	1.000
	6.0	1.005	1.004	1.005	1.006	1.000
	8.0	1.004	1.003	1.004	1.005	1.000

6A-9 COOLING SYSTEM MULTIPLIERS (CSM)

SYSTEM TYPE See Table 6-3 for Code minimums		COOLING SYSTEM MULTIPLIERS (CSM)										
Central Units (SEER)	Rating		7.5-7.9	8.0-8.4	8.5-8.8	8.9-9.4	9.5-9.9	10.0-10.4	10.5-10.9	11.0-11.4	11.5-11.9	12.0-12.4
	CSM		.45	.43	.40	.38	.36	.34	.32	.31	.30	.28
PTAC & Room Units (EER)	Rating	12.5-12.9	13.0-13.4	13.5-13.9	14.0-14.4	14.5-14.9	15.0-15.4	15.5-15.9	16.0-16.4	16.5-16.9	17.0-17.4	17.5 & Up
	CSM	.27	.26	.25	.24	.24	.23	.22	.21	.21	.20	.19

CLIMATE ZONES 1 2 3

FLORIDA BUILDING CODE — BUILDING

WINTER POINT MULTIPLIERS (WPM)

CLIMATE ZONES 1 2 3

6A-10 WINTER OVERHANG FACTORS (WOF)

SELECT BY OR	OH Ratio	.00-.11	.12-.17	.18-.26	.27-.35	.36-.46	.47-.57	.58-.70	.71-.83	.84-1.18	1.19-1.72	1.73-2.73	2.74 & up
	North	1.00	1.000	1.001	1.003	1.005	1.009	1.011	1.014	1.016	1.021	1.024	1.027
	Northeast	1.00	0.998	1.001	1.008	1.015	1.023	1.029	1.035	1.040	1.049	1.056	1.061
	East	1.00	1.007	1.018	1.040	1.069	1.109	1.150	1.198	1.242	1.338	1.429	1.507
	Southeast	1.00	1.014	1.043	1.111	1.202	1.332	1.472	1.635	1.787	2.113	2.412	2.650
	South	1.00	0.994	1.032	1.142	1.308	1.563	1.845	2.175	2.471	3.042	3.450	3.661
	Southwest	1.00	1.006	1.025	1.070	1.131	1.217	1.308	1.413	1.508	1.708	1.888	2.031
	West	1.00	1.002	1.010	1.027	1.049	1.077	1.102	1.128	1.149	1.187	1.217	1.238
	Northwest	1.00	0.999	1.000	1.004	1.008	1.012	1.016	1.019	1.022	1.028	1.032	1.036
	OH Length	0.0'	1.0'	1.5'	2.0'	3.0'	3.5'	4.5'	5.5'	6.5'	9.5'	14.0'	20.0'

6A-11 WALL WINTER POINT MULTIPLIERS (WPM)

FRAME					CONCRETE BLOCK (NORMAL WT)				FACE BRICK				LOG		
					INTERIOR INSULATION			EXT. INSUL.	R-VALUE	WOOD FR	R-VALUE	BLOCK			
									0-6.9	12.6	0-2.9	7.9			
R-VALUE	EXT	ADJ	EXT	ADJ	R-VALUE	EXT	ADJ	EXT	7-10.9	4.2	3-6.9	5.7	R-VALUE	6 INCH	8 INCH
0-6.9	11.1	10.4	15.1	13.1	0-2.9	11.2	6.8	11.2	11-18.9	3.5	7-9.9	3.8	0-2.9	4.5	3.0
7-10.9	4.4	4.4	7.3	6.6	3-4.9	7.3	5.1	5.6	19-25.9	2.2	10 & UP	3.0	3-6.9	2.8	2.2
11-12.9	3.7	3.6	5.7	5.2	5-6.9	5.7	4.2	4.3	26 & Up	1.4			7 & Up	2.1	1.7
13-18.9	3.4	3.3	5.2	4.9	7-10.9	4.6	3.5	3.3	NOTE: SEE SECTION 2.0 OF APPENDIX C FOR MULTIPLIERS OF ENVELOPE COMPONENTS NOT ON THIS FORM.						
19-25.9	2.2	2.2	4.6	4.4	11-18.9	3.0	2.6	2.2							
26& Up	1.5	1.5	2.7	2.6	19-25.9	1.9	1.7								
					26 & Up	1.3	1.2								

ADDITIONAL TABLES

CLIMATE ZONES 1 2 3

6A-19 COOLING CREDIT MULTIPLIERS (CCM)

SYSTEM TYPE	Cooling credit multipliers (CCM)
Ceiling Fans	.95*
Cross Ventilation	.95*
Whole House Fan	.95*
Multizone	.95
Programmable Thermostat	.95

*Credit may be taken for only one system type concurrently.

6A-20 AIR DISTRIBUTION SYSTEM CREDIT MULTIPLIERS

TYPE CREDIT	Prescriptive requirements	Multiplier
Airtight Duct credit ¹	610.1.A.1	1.00
Factory-sealed AHU credit ²	610.2.A.2.1	0.95

¹Duct Sealing Multiplier (DSM) shall be 1.15 (summer) or 1.17 (winter) unless Airtight Duct credit is demonstrated by test report.

²Multiply Factory-sealed AHU credit by summer (Table 6A-7) or winter (Table 6A-16) AHU multiplier. Insert total in the "AS-Built AHU" box on page 2 or 4.

6A-21 HEATING CREDIT MULTIPLIERS (HCM)

SYSTEM TYPE	HCM	HEATING CREDIT MULTIPLIERS (HCM)					
Programmable Thermostat	HCM	.95					
Multizone	HCM	.95					
Natural Gas	AFUE	.68-.72	.73-.77	.78-.82	.83-.87	.88-.92	.93 & Up
	HCM	.59	.55	.51	.48	.45	.43
LP Gas	HCM	.79	.74	.69	.65	.61	.58

6A-22 HOT WATER MULTIPLIERS (HWM)

SYSTEM TYPE See Table 6-12 for Code minimums		HOT WATER MULTIPLIERS (HWM)										
Electric Resistance	EF				.80-.81	.82-.83	.84-.85	.86-.87	.88-.90	.91-.93	.94-.96	.97 & Up
	HWM				3020	2946	2876	2809	2746	2655	2571	2491
Natural Gas	EF	.43-.47	.48-.49	.50-.51	.52-.53	.54-.55	.56-.57	.58-.59	.60-.61	.62-.63	.64-.65	.66 & Up
	HWM	2231	1998	1918	1844	1776	1713	1654	1599	1547	1498	1453
LP Gas	HWM	3029	2713	2605	2505	2411	2326	2245	2171	2101	2035	1973
Ded. HP or Solar System with Tank	EF	1.0-1.49	1.5-1.99	2.0-2.49	2.5-2.99	3.0-3.49	3.5-3.99	4.0-4.49	4.5-4.99	5.0-Up		
	HWM	2416	1611	1208	966	805	690	604	537	483		

6A-23 HOT WATER CREDIT MULTIPLIERS (HWCN)

SYSTEM TYPE	HOT WATER CREDIT MULTIPLIERS (HWCN)					
Heat Recovery Unit	With	Air Conditioner			Heat Pump	
	HWCN	.84			.78	
Add-on Dedicated Heat Pump (without tank)	EF	2.0-2.49		2.5-2.99		3.0-3.49
	HWCN	.44		.35		.29
Add-on Solar Water Heater (without tank)	EF	1.0-1.9		2.0-2.9		3.0-3.9
	HWCN	.84		.42		.28

NOTE: A HWM must be used in conjunction with all HWCN. See Table 6A-22. EF Means Energy Factor.

6A-24 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Max: .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 & 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	Seal: 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.	NA
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	✓

6A-25 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 6-12. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required for vertical pipe risers.	✓
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%.	NA
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 minimum 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.	✓